

Agriculture: A Glossary
of Terms, Programs, and Laws
2nd Edition

June 8, 1999

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Agriculture: A Glossary of Terms, Programs, and Laws

Summary

The complexities of federal farm and food programs have generated a unique vocabulary. Common understanding of these terms (new and old) is important to those involved in policymaking in this area. For this reason, the House Agriculture Committee requested that CRS prepare a glossary of agriculture and related terms (e.g., food programs, conservation, forestry, environmental protection, etc.). Besides defining terms and phrases with specialized meanings for agriculture, the glossary also identifies acronyms, agencies, programs, and laws related to agriculture that are of particular interest to the staff and Members of Congress. CRS is releasing it for general congressional use with the permission of the Committee.

The approximately 1,900 items selected for inclusion in this glossary were determined in large part by Committee instructions concerning their needs, and by the informed judgment of numerous CRS experts. Time and resource constraints influenced how much and what was included. Many of the glossary explanations have been drawn from other published sources, including previous CRS glossaries, those published by the U.S. Department of Agriculture and other federal agencies, and glossaries contained in the publications of various organizations, universities, and authors. In collecting these definitions, the compilers discovered that many terms have diverse specialized meanings in different professional settings. In this glossary, the definitions or explanations have been written to reflect their relevance to agriculture and recent changes in farm and food policies.

This glossary is in alphabetical order and contains an explanation for each term with appropriate cross references. The terms shown in **bold** in the text of narrative explanations are included elsewhere as individual glossary terms; additionally, there are cross references to related terms. Some of the acronyms, particularly those of organizations and associations, are not followed by an explanation.

The definitions and explanations are not legal in nature, but are explanatory. Hence, this document should not be used as a legal or administrative reference. For those purposes, the Statutes at Large, U.S. Code, and the Code of Federal Regulations are the more appropriate resources.

Agriculture: A Glossary of Terms, Programs, and Laws

AAEA — American Agricultural Economics Association.

AAFCO — American Association of Feed Control Officials.

AAM — American Agriculture Movement.

AAMP — American Association of Meat Processors.

AARCC — Alternative Agriculture Research and Commercialization Corporation.

ABA — American Bakers Association.

ABA — American Bankers Association.

Abandoned wells — Abandoned **drainage wells** and abandoned water wells on vacant farmsteads are of particular concern for agriculture. Abandoned wells can present both safety risks and a direct conduit by which groundwater can be contaminated by surface runoff. A number of states have incentive and/or regulatory programs to cap or seal abandoned wells.

AC — Area conservationist.

ACA — **Agricultural Credit Association**.

ACE — Agriculture in Concert with the Environment.

Acid deposition / acid rain — Abnormally acidic (low **pH**) precipitation (or dry deposition) resulting from emissions of sulfur and **nitrogen** compounds that transform during chemical processes in the atmosphere. Acid deposition can affect the chemistry of soils and acidify lakes, adversely affecting forests and fish. It does not adversely affect cropland. The **Clean Air Act** includes a program focused on controlling precursor emissions of acid deposition—primarily sulfur oxides from coal-fired electric utilities.

ACP — **Agricultural Conservation Program**.

ACPA — American Crop Protection Association.

Acquired lands — Lands in federal ownership that were obtained by the federal government through purchase, condemnation, gift, or exchange. One category of **public lands**.

ACR — **Acreage conservation reserve**.

Acre-foot — The volume of water that would cover one acre of land (43,560 square feet) to a depth of one foot, equivalent to 325,851 gallons of water. An acre-foot is the basic measure of agricultural water use. On average, irrigators apply almost 2

feet of water on each acre through the crop growing season; the amount ranges from 4 feet in the Southwest to a half foot in some eastern states. Water withdrawn for **irrigation** from ground and surface sources totals about 150 maf (million acre-feet) of water annually.

Acreage allotment — Under provisions of permanent commodity **price support** law, a farm's acreage allotment is its share, based on its previous production, of the national acreage needed to produce sufficient supplies of a particular crop. Under the **FAIR Act of 1996**, acreage allotments are not applicable to the **contract commodities**, peanuts, or sugar. However, acreage allotments still apply to tobacco.

Acre — 1 acre=43,560 sq. ft.=208.7 ft.²=0.405 hectares; or 640 acres=1 sq. mile (called a section).

Acreage base (or base acres) — A farm's average planted acreage for a specific crop over the previous five years (for wheat or feed grains) or three years (for cotton or rice), plus land not planted because of certain **acreage reduction** or diversion programs. Commodity acreage bases were eliminated by the **FAIR Act of 1996**.

Acreage conservation reserve — The cropland acreage diverted from production under the **acreage reduction program**.

Acreage diversion programs — Historically, **commodity programs** included provisions to reduce commodity supplies by diverting acreage to non-crop uses. Examples include **paid diversion**, unpaid diversion, **set-aside**, and **acreage reduction** programs. The **FAIR Act of 1996** eliminated authority for the **USDA** to implement annual acreage reduction programs. The **Conservation Reserve Program** pays farmers for the long-term conversion of fragile cropland land to conserving uses and is not considered to be an acreage diversion program.

Acreage limitation — With respect to commodity policy, acreage limitation might refer to planting constraints under an **acreage reduction program**, **set-aside**, or **paid land diversion**. In relation to water policy, it is the maximum number of acres that may be irrigated with less than **full-cost water** from Bureau of Reclamation projects. Generally, the acreage limitation for individuals or legal entities representing 25 people or fewer is 960 acres; however, amounts vary depending on a landowner's legal status. Also referred to as ownership limitation, ownership entitlement, or non-full-cost entitlement.

Acreage Reduction Program (ARP) — A no longer authorized annual cropland retirement program for wheat, feed grains, cotton, or rice in which farmers participating in the **commodity programs** (in order to be eligible for **nonrecourse loans** and **deficiency payments**) were mandated to idle a crop-specific, nationally-set portion of their **base acreage** during years of surplus. The idled acreage (called the acreage conservation reserve) was devoted to a **conserving use**. The goal was to reduce supplies, thereby raising market prices. Additionally, idled acres did not earn **deficiency payments**, thus reducing commodity program costs. ARP was criticized for diminishing the U.S. competitive position in export markets. The **FAIR Act of 1996** did not reauthorize authority for ARPs. ARP differed from a **set-aside program** in that under a **set-aside program** reductions were based upon current year plantings, and did not require farmers to reduce their plantings of a specific crop.

ACS — Alternative conservation system.

Action levels — As opposed to **tolerances** (which are established for **pesticide** residues occurring as a direct result of proper usage), action levels are set for inadvertent residues resulting from previous legal use or accidental contamination. At the action level set by the **Environmental Protection Agency**, **Food and Drug Administration** and **USDA** are required to take enforcement action against the contaminated food or agricultural commodity. The term is also used in other regulatory programs.

Active ingredient — In any **pesticide** product, the component that kills, or otherwise controls, target pests. Pesticides are regulated by the **Environmental Protection Agency** primarily on the basis of active ingredients.

ACTPN — Advisory Committee for Trade Policy and Negotiations.

Actual Production History (APH) — A measure of an individual farmer’s annual production of a commodity over a multi-year period. The APH serves as the basis for the farmer’s “normal” crop yield in the **crop insurance** program. When the actual crop yield deviates by more than a certain percentage from the APH, an insured producer is eligible for an indemnity (loss) payment.

Actuarially sound — The financial goal of any insurance program (including the federal **crop insurance** program) is to operate on an actuarially sound basis; that is, total premiums collected should more than offset total indemnities paid out.

Acute toxicity — The ability of a substance to cause harmful effects soon after a single exposure or dose. Also, any severe poisonous effect resulting from a single short-term exposure to a toxic substance. See also **chronic toxicity**.

AD — Anti-dumping duty.

Ad valorem duty — A **tariff** expressed as a fixed percentage of the value of the imported commodity or product. Generally, by contrast, a specific **duty** is applied as a charge on each unit or specified quantity of an imported item (i.e., \$5 per ton).

ADA — American Dairy Association.

ADA — American Dietetic Association.

ADC — Animal Damage Control Program.

Additional peanuts — Peanuts sold from a farm in any **marketing year** in excess of the amount of quota peanuts (see **peanut poundage quota**) sold from that farm. Additional peanuts must be exported or crushed into oil and meal. Additional peanuts are eligible only for the lower of two **price support** levels available under the **peanut price support program**. The lower additional loan rate is set to ensure that the CCC does not incur losses on their sale and disposal. In setting this support level, **USDA** is also required to take into account the demand for peanut oil and meal, expected prices of other vegetable oils and protein meals, and the demand for peanuts in foreign markets. Under the **FAIR Act of 1996**, price support loans for additional peanuts remain available.

ADI — Acceptable daily intake.

Adjusted Gross Revenue (AGR) Pilot Program — A pilot **revenue insurance** program first implemented in 1999 by **USDA** on a limited basis. It allows farmers to receive a guarantee of a percentage of their revenue for multiple commodities, including some livestock revenue, rather than just the revenue from an individual commodity.

Adjusted world price — As part of the upland cotton and the rice **marketing assistance loan** programs, **USDA** calculates and publishes, on a weekly basis, what is known as the adjusted world price (AWP). The AWP is the prevailing **world price** for upland cotton, adjusted to account for U.S. quality and location. Producers who have taken out **USDA** marketing assistance loans may choose to repay them at either the lesser of the established loan rate for upland cotton, plus interest, or the announced AWP for that week. The AWP for cotton also is used for determining **Step 2 payments**.

Adjusted world price, cotton (AWP) — As part of the upland cotton **marketing assistance loan** program, **USDA** calculates and publishes, on a weekly basis, what is known as the adjusted world price (AWP). The AWP is the prevailing **world price** for upland cotton, adjusted to account for U.S. quality and location. Producers who have taken out **USDA** marketing assistance loans may choose to repay them at either the lesser of the established loan rate for upland cotton, plus interest, or the announced AWP for that week. The AWP for cotton also is used for determining **Step 2 payments**.

Administrative convergence — **USDA** in 1998 was developing a plan to consolidate the administrative functions (e.g., accounting, budgeting, procurement, personnel) of its **field service agencies** at the state level under one office, to be called the Support Services Bureau. Currently, separate administrative structures provide support to these agencies. **USDA** has named this effort its “Administrative Convergence Plan,” or, simply “administrative convergence.” The term also has been used to describe any **USDA** effort to streamline, or combine under one entity, the administrative functions of one or more of its agencies.

Administrative Procedure Act — P.L. 79-404 (July 11, 1946), as amended, establishes, among other things, minimum procedural requirements or models for federal agency rulemaking and certain types of hearings. For instance, the APA establishes procedures for informal rulemaking, which may include notice-and-comment requirements, or formal rulemaking, which includes trial-type hearings. Exemptions from rulemaking requirements are included in the Act. The APA provides standards for judicial review of final agency action. The provisions of the APA apply to **USDA** rulemaking, unless exempted under the provisions of another statute. For example, hearings conducted by the **USDA’s National Appeals Division (NAD)** are not governed by the APA. The final determination of the NAD is reviewable and enforceable by a U.S. District Court in accordance with the judicial review provisions of the APA.

Adulterated food — Generally, impure, unsafe, or unwholesome; however, the **Federal Food, Drug, and Cosmetic Act**, the **Federal Meat Inspection Act**, and the **Poultry Products Inspection Act** contain separate language defining in very specific (and lengthy) terms how the term “adulterated” will be applied to the foods each of these laws regulates. Products that are adulterated under these laws’ definitions cannot enter into commerce for human food use.

Advance deficiency payments — Initial payments (ranging from 30 to 50% of the total payment) made to crop producers when they signed up for federal **commodity programs**. If the total deficiency payment was eventually calculated to be less than the advance deficiency payment, the producer was required to refund the difference. The **FAIR Act of 1996** replaces the **target price/deficiency payment** subsidy mechanism with **production flexibility contract** payments.

Advisory Committee for Trade Policy and Negotiations (ACTPN) — A 45-member group appointed by the President to provide advice on matters of trade policy and related issues, including trade agreements. The 1974 Trade Act requires the ACTPN’s establishment and broad representation of key economic sectors affected by trade. Below ACTPN are seven policy committees, including the Agricultural Policy Advisory Committee (APAC). The Agriculture Policy Advisory Committee is made up of farm sector and industry representatives.

AFBF — American Farm Bureau Federation (Farm Bureau).

AFDO — Association of Food and Drug Officials.

AFFI — American Frozen Food Institute.

AFIA — American Feed Industry Association.

Aflatoxin — Aflatoxin is a naturally occurring **mycotoxin** produced by two types of mold: *aspergillus flavus* and *aspergillus parasiticus*. *Aspergillus flavus* is common and widespread in nature and is most often found when certain grains are grown under stressful conditions such as drought. Favorable conditions for mold growth include high moisture content and high temperature. At least 13 different types of aflatoxin are produced in nature with aflatoxin B1 considered as the most toxic. While the presence of *Aspergillus flavus* does not always indicate harmful levels of aflatoxin it does mean that the potential for aflatoxin production is present. The **Food and Drug Administration** has established **action levels** for aflatoxin present in food or feed to protect human and animal health. The FDA will consider action if aflatoxin levels exceed: 20 ppb for corn and other grains intended for immature animals (including immature poultry) and for dairy animals, or when its destination is not

known; 20 ppb for animal feeds, other than corn or cottonseed meal; 100 ppb for corn and other grains intended for breeding beef cattle, breeding swine, or mature poultry; 200 ppb for corn and other grains intended for finishing swine of 100 pounds or greater; 300 ppb for corn and other grains intended for finishing (i.e., feedlot) beef cattle and for cottonseed meal intended for beef cattle, swine or poultry. All corn exported from the United States is required to be tested for aflatoxin. Aflatoxin testing services are available nationwide, upon request and for a fee using several different types of test kits approved by **GIPSA**.

AFPA — Agricultural Fair Practices Act of 1967.

AFT — American Farmland Trust.

Agency for International Development (AID or USAID) — An independent agency of the executive branch, established in 1961, that administers U.S. international development and humanitarian assistance programs. The activities often involve joint efforts with private voluntary organizations (PVOs). USAID administers commodity donations for humanitarian or development purposes under Titles II and III of **P.L. 480**, or **Food for Peace**, and **commodity import programs**.

Aggregate measure of support (AMS) — An indicator of the amount of domestic support for agriculture. As used in the **Uruguay Round Agreement on Agriculture**, the AMS refers to a measure of the gap between domestic and world prices multiplied by the quantity supported, plus any other commodity-specific transfers. Internal or domestic support reduction commitments in the Uruguay Round Agreement on Agriculture are expressed in terms of reductions in a total AMS covering all trade-distorting internal support measures for agriculture.

Agreement on Agriculture — The **Uruguay Round Agreement on Agriculture** reached in 1994 and implemented in U.S. law by the **Uruguay Round Agreements Act of 1994** brings agricultural trade more fully under international trade rules and obligations. The Agreement provides for the conversion of quantitative barriers to trade to tariffs or **tariff rate quotas**, and for reductions in export subsidies and trade-distorting domestic support policies.

Agribusiness — Agriculturally related businesses that supply farm inputs (such as fertilizer or equipment) or are involved in the marketing of farm products (such as warehouses, processors, wholesalers, transporters, and retailers). Farms are not usually included when the term agribusiness is used.

Agricultural Act of 1949 — P.L. 89-439 (October 31, 1949), along with the **Agricultural Adjustment Act of 1938**, makes up the major part of the **permanent law** that mandates commodity price and farm income support. The original 1949 Act designated mandatory support for **basic commodities** and the following **nonbasic commodities**: wool and mohair, tung nuts, honey, Irish potatoes (excluded in the **Agricultural Act of 1954**), and milk, butterfat, and their products. Periodic **farm bills** (most recently the **FAIR Act of 1996**) make temporary changes in the levels and design of **commodity programs**.

Agricultural Act of 1954 — P.L. 83-690 (August 28, 1954) established a flexible **price support** for **basic commodities** (excluding tobacco) at 82.5-90% of **parity** and authorized a **Commodity Credit Corporation** reserve for foreign and domestic relief. Title VII was designated the **National Wool Act of 1954** and provided for a new price support program for wool and mohair to encourage increased domestic production. Price support for wool and mohair continued through **marketing year** 1995, at which time it was phased down and terminated under the explicit mandate of P.L. 103-130 (November 1, 1993).

Agricultural Act of 1956 — P.L. 84-540 (May 28, 1956) created the **Soil Bank Program** (Title I of was called the **Soil Bank Act**), addressed the disposal of CCC inventories of surplus stocks, contained commodity support program provisions, and forestry provisions. The Soil Bank Act authorized short- and long-term removal of land from production with annual rental payments to participants (Acreage Reserve Program and Conservation Reserve Program, respectively). The Acreage Reserve Program, for wheat, corn, rice, cotton, peanuts, and several types of tobacco, allowed producers to retire land on an annual

basis in crop years 1956 through 1959 in return for payments. The Conservation Reserve Program allowed producers to retire cropland under contracts of 3, 5, or 10 years in return for annual payments. The **Soil Bank Act** was repealed by Section 601 of the Food and Agriculture Act of 1965. The Conservation Reserve portion of the Soil Bank was a model for the subsequent **Conservation Reserve Program (CRP)**, enacted in 1985.

Agricultural Act of 1970 — P.L. 91-524 (November 30, 1970) initiated a significant change in commodity support policy. This 3-year **farm bill** replaced some of the more restrictive and mandatory features of acreage allotments, planting restrictions, and marketing quotas with voluntary annual cropland **set-asides** and marketing certificate payments to achieve **parity prices** (the precursor to **target prices** and **deficiency payments**). For the first time, the law adopted an annual **payment limitation** per producer (set at \$55,000 per crop). The Act also amended and extended the authority of the **Class I differential** in federal **milk marketing order** areas.

Agricultural Adjustment Act (AAA) of 1933 — P.L. 73-10 (May 12, 1933) was the New Deal initiative to assist the farm sector during the Great Depression. This was the first comprehensive effort to raise and stabilize farm prices and income. The law created and authorized the Agricultural Adjustment Administration to (1) enter into voluntary agreements to pay farmers to reduce production of designated **“basic” commodities** (cotton, wheat, corn, rice, tobacco, hogs, and milk), (2) to make advance payments to farmers who stored crops on the farm, (3) to create **marketing agreements** between farmers and middlemen, and (4) to levy processing taxes to pay for production adjustment and market development. The **Commodity Credit Corporation (CCC)** was incorporated under the laws of the state of Delaware on October 17, 1933, to carry out financial activities, including making **nonrecourse loans** on the basic crops. Support for other commodities was authorized upon recommendation by the Secretary with the President’s approval. Commodity loan programs carried out by the CCC for 1933-37 included cotton, corn, rosin, turpentine, tobacco, peanuts, dates, figs, and prunes. The provisions for production control and processing taxes in the Act were later declared unconstitutional in the Hoosac Mills decision of 1936. Congress responded by adopting the **Soil Conservation and Domestic Allotment Act of 1936**, the **Agricultural Marketing Act of 1937**, and the **Agricultural Adjustment Act of 1938**, all of which remain as **permanent law**.

Agricultural Adjustment Act Amendment of 1935 — P.L. 74-320 (August 24, 1935) made several important and lasting changes to the **Agricultural Adjustment Act of 1933**. **Section 22** of the law gave the President authority to impose quotas when imports interfered with **commodity programs** designed to raise prices and farm income. **Section 32** was designed to widen market outlets for surplus agricultural commodities by permanently appropriating funds to purchase commodities for primarily **child nutrition programs**. Section 22 has been superseded, but Section 32 continues to operate.

Agricultural Adjustment Act of 1938 — P.L. 75-430 (February 16, 1938) was enacted as an alternative and replacement for the farm subsidy policies found unworkable in the AAA legislation of 1933. The 1938 Act was the first to make **price support** mandatory for corn, cotton, and wheat to help maintain a sufficient supply in low production periods along with **marketing quotas** to keep supply in line with market demand. It established permissive supports for butter, dates, figs, hops, turpentine, rosin, pecans, prunes, raisins, barley, rye, grain sorghum, wool, winter cover-crop seeds, mohair, peanuts, and tobacco for the 1938-40 period. Also, Title V of the Act established the **Federal Crop Insurance Corporation**. The 1938 Act is considered part of **permanent legislation** for **commodity programs** and farm income support (along with the **Commodity Credit Corporation Charter Act** and the **Agricultural Act of 1949**). Provisions of this law are often superseded by more current legislation (such as the **FAIR Act of 1996**). However, if the current legislation expires and new legislation is not enacted, the law reverts back to the permanent provisions of the 1938 Act.

Agricultural Attache, Counselor, or Trade Officer — An agricultural expert, employed by the **Foreign Agricultural Service**, on the staff of an U.S. embassy, consulate, or agricultural trade office.

Agricultural Conservation Program (ACP) — Administered by the **Farm Service Agency**, this largest and oldest conservation cost-sharing program paid farmers up to \$3,500 per year as an incentive to install approved conservation practices.

It was terminated in the **FAIR Act of 1996** and replaced by a new **Environmental Quality Incentives Program (EQIP)**.

Agricultural Credit Act of 1987 — P.L. 100-233 (January 6, 1988) was enacted in response to the severe financial crisis of the early- to mid-1980s which affected both farmers and their lending institutions. The Act authorized a \$4 billion financial assistance package for financially vulnerable institutions of the **Farm Credit System (FCS)**, protected the full value of FCS borrower stock when retired, established a permanent insurance mechanism to ensure the repayment of funds borrowed by the FCS for lending purposes, required the FCS and **Farmers Home Administration** to restructure severely delinquent farm loans that meet certain criteria, mandated FCS consolidation and established a secondary market for farm real estate loans.

Agricultural Credit Association (ACA) — An institution of the **Farm Credit System** that has direct lending authority to make short-, intermediate- and long-term loans to agricultural producers, rural homeowners and some farm-related businesses.

Agricultural district — A planning term which defines an area in which farming is the preferred economic activity. Districts may be voluntarily created by landowners who receive benefits, usually in return for not developing the land for a certain number of years, or they may be designated in a local land use plan.

Agricultural diversification — A system of farming that encourages production of a variety of plants and animals and their products as opposed to monoculture or large-scale specialization. Advocates of diversification argue that it provides greater income stability. Specialized farms benefit from **economies of size**.

Agricultural Fair Practices Act of 1967 — This law (P.L. 90-288) was enacted to protect farmers from retaliation by **handlers** (buyers of their products) because the farmers are members of a **cooperative**. The act permits farmers to file complaints with **USDA**, which can then institute court proceedings, if they believe their rights under the law have been violated. Several bills have been introduced in recent years on behalf of producers (among them, some poultry growers who have **contracts** with large companies), to give them more bargaining power under the act, which, some producers contend, lacks adequate enforcement authorities.

Agricultural Market Transition Act (AMTA) — Title I of the **FAIR Act of 1996**. It allows farmers who have participated in the wheat, feed grain, cotton, and rice programs in any one of the 5 years prior to 1996 to enter into 7-year **production flexibility contracts** for 1996-2002. Total national **production flexibility contract** payments (sometimes called AMTA payments, or **contract payments**) for each fiscal year are fixed in the law. The AMTA allows farmers to plant 100% of their total **contract acreage** to any crop except fruits and vegetables, and receive a full payment. Land must be maintained in agricultural uses. Unlimited **haying and grazing** and planting and harvesting alfalfa and other forage crops are permitted with no reduction in payments.

Agricultural Marketing Agreement Act of 1937 — This law reaffirmed the marketing agreements provisions of the **Agricultural Adjustment Act of 1933** and redefined the process for establishing **marketing orders**. Under the authority of this permanent law and subsequent amendments, marketing orders have been established for milk as well as numerous fruits and vegetables.

Agricultural Marketing Service (AMS) — A **USDA** agency that establishes standards for **grades** of cotton, tobacco, meat, dairy products, eggs, fruits, and vegetables. It also operates inspection and grading services and market news services, and provides supervisory administration for federal **marketing orders**.

Agricultural pollution — Wastes, emissions, and discharges arising from farming activities. Causes include runoff and leaching of **pesticides** and **fertilizers**; pesticide drift and volatilization; **erosion** and dust from cultivation; and improper disposal of animal manure and carcasses. Some agricultural pollution is **point source**, e.g., large feedlots, which require permits under the **Clean Water Act**, but much is **nonpoint source**, meaning that it derives from dispersed origins, e.g., blowing dust or nutrients leaching from fields. As most pollution control programs have focused on particular categories of point sources, nonpoint and unregulated point sources account for an increasingly large proportion of remaining pollution.

Based on state surveys, the **Environmental Protection Agency** concludes that agricultural sources account for over one-half the pollution impairing surface water quality in the U.S. The **Clean Water Act** mandates that states develop and implement management programs to control nonpoint sources of water pollution.

Agricultural Quarantine Inspection (AQI) — A program, administered by **USDA’s Animal and Plant Health Inspection Service**, that inspects incoming passengers, luggage, and cargo at U.S. ports of entry in order to protect U.S. agriculture from foreign animal and plant pests and diseases.

Agricultural Research, Extension, and Education Reform Act of 1998 — P.L. 105-185 (June 23, 1998) reauthorized and revised federally supported agricultural research, education, and extension programs. The Act built upon reforms that were made in the research title of the **FAIR Act of 1996**. Key provisions were new accountability measures for recipients of federal research funds, and a 5-year research Initiative for Future Agriculture and Food Systems that was authorized to be funded by savings from food stamp administrative costs. This law reduced federal spending for states’ **food stamp program** administrative and work/training costs and extended food stamp benefits to approximately one-third of the legal immigrants denied food stamps by the 1996 welfare reform legislation. P.L. 105-185 expires in 2002.

Agricultural Research Service (ARS) — A **USDA** agency employing federal scientists to conduct basic, applied, and developmental research in the following fields: livestock; plants; soil, water and air quality; energy; food safety and quality; nutrition; food processing, storage, and distribution efficiency; non-food agricultural products; and international development.

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Agricultural Stabilization and Conservation Service (ASCS) — This was the **USDA** agency once primarily responsible for administering the farm commodity price and income support programs, and conservation cost-sharing programs. Its functions were folded into a new **Farm Service Agency** as a consequence of 1994 reorganization. A local **field service center** is maintained in nearly all farming localities.

Agricultural Trade Development and Assistance Act of 1954 — P.L. 83-480 (July 10, 1954) is commonly referred to as “**PL 480**” and “**Food for Peace**.” The law established what continues to be the primary U.S. overseas food assistance program. The program makes U.S. agricultural commodities available through long-term credit at low interest rates and provides food donations.

Agricultural Trade Office — The **Agricultural Trade Act of 1978** directed the establishment of trade offices in major centers of commerce throughout the world. Agricultural trade offices are operated by the **Foreign Agricultural Service** to develop, maintain, and expand international markets for U.S. agricultural commodities and serve as centers for export sales promotion and contact points for importers seeking to buy U.S. farm products.

Agricultural zoning — A designation intended to protect farmland and farming activities from incompatible nonfarm uses. Agricultural zoning can specify many factors, such as the uses allowed, minimum farm size, the number of nonfarm dwellings allowed, or the size of a buffer separating farm and nonfarm properties.

Agriculture and Consumer Protection Act of 1973 — P.L. 93-86 (August 10, 1973) was the 4-year **farm bill** that adopted **target prices** and **deficiency payments** as a tool that would support farm income but reduce forfeitures to the **Commodity Credit Corporation** of surplus stocks. It reduced **payment limitations** to \$20,000 (from \$55,000 set in 1970) for all **program crops**. The Act might be considered the first omnibus farm bill because it went beyond simply authorizing farm commodity programs. It authorized disaster payments and disaster reserve inventories; created the Rural Environmental Conservation Program; amended the **Food Stamp Act of 1964**, authorizing the use of commodities for feeding low income mothers and young children (the origin of the supplemental food program); and amended the **Rural Development Act of 1972**.

Agriculture and Food Act of 1981 — P.L. 97-98 (December 22, 1981) was the 4-year omnibus **farm bill** that continued and modified **commodity programs** through 1985. It set specific **target prices** for 4 years, eliminated rice allotments and marketing quotas, lowered dairy supports, and made other changes affecting a wide range of **USDA** activities. The next year this farm bill was amended to freeze the dairy **price support** level and mandate loan rates and acreage reserve provisions for the 1983 crops (Omnibus Budget Reconciliation Act of 1982, P.L. 97-253). Again in 1984, amendments were adopted to freeze target prices, authorize paid land diversion for feed grains, upland cotton, and rice, and provide a wheat **payment-in-kind** program for 1984 (Agricultural Programs Adjustment Act of 1984, P.L. 98-258).

Agriculture in Concert with the Environment (ACE) — An **Environmental Protection Agency** program, administered cooperatively with USDA's **Sustainable Agriculture Research and Education (SARE)** program, to fund research projects that reduce the risk of pollution from pesticides and soluble fertilizers.

AHI — Animal Health Institute.

AID — Agency for International Development.

AIF — Animal Industry Foundation.

Air pollution — Contamination of the atmosphere by substances that, directly or indirectly, adversely affect human health or welfare. Air pollution results from human activities, both deliberate releases (as from smokestacks) and fugitive emissions (as dust blown from streets or fields), and from natural sources, including sea spray, volcanic emissions, pollen, etc. The **Clean Air Act** authorizes the **Environmental Protection Agency** to regulate air pollution (see **National Ambient Air Quality Standards**).

Alar — Trade name for daminozide, a plant regulator and therefore classed as a pesticide, that makes apples redder, firmer, and less likely to drop off trees before harvest. It was also used to a lesser extent on peanuts, tart cherries, concord grapes, and other fruits. **Alar** was suspended by the **Environmental Protection Agency** in 1989 following a controversy over allegations of cancer risk to children from residues of **Alar** and its breakdown product **UDMH** on apples and in apple products.

Alcohol — The family name of a group of organic chemical compounds that includes methanol, **ethanol**, isopropyl alcohol, and others. Ethanol is produced from crops or residues with a high carbohydrate content. Alcoholic beverages contain ethanol, and ethanol is blended with gasoline to produce gasohol. Most industrial ethanol produced in the U.S. is from corn **wet-milling**.

Alien Species Prevention and Enforcement Act of 1992 — P.L. 102-393 (October 6, 1992) makes it illegal to ship certain categories of plants and animals through the mail. The prohibited species are certain injurious animals, plant pests, plants and materials under federal quarantine, and certain plants and animals under the Lacey Act, a law that pertains to illegal trade in fish, wildlife, and plants.

Allotment — In conjunction with commodity support programs, **acreage allotments** and **marketing quotas** serve to limit a farm's output or volume marketed. For federal lands grazing, an allotment is an area designated and managed for grazing of livestock. The **Bureau of Land Management** and the **Forest Service** stipulate the number of livestock and time period (season) of use for each allotment under their respective jurisdictions.

Allowable sale quantity (ASQ) — A forestry term defined in law as the maximum amount of timber that can be sold every year, forever, from a national forest; in **forest planning**, the annual timber sale target for a national forest.

Alternative Agricultural Research and Commercialization Corporation (AARCC) — Originally established by the **FACT Act 1990** as the Applied Agricultural Research Commercialization Center, the purpose of the AARCC is to assist in the research, development, and commercialization of new nonfood products from agricultural and forestry commodities. AARCC makes repayable equity investments, such as buying stock or taking a percentage of future sales (royalties), or both. The **FAIR Act of 1996** changed the Center from a government agency to a wholly-owned venture capital corporation of **USDA**.

Alternative agriculture — A systematic approach to farming intended to reduce agricultural pollution, enhance sustainability, and improve efficiency and profitability. Overall, alternative agriculture emphasizes management practices that take advantage of natural processes (such as nutrient cycles, nitrogen fixation, and pest-predator relationships), improve the match between cropping patterns and agronomic practices on the one hand and the productive potential and physical characteristics of the land on the other, and make selective use of commercial fertilizer and pesticides to ensure production efficiency and conservation of soil, water, energy, and biological resources. Examples of alternative agricultural practices include use of crop rotation, animal and green manures, soil and water conserving tillage systems, such as **no-till** planting methods, **integrated pest management**, and use of genetically improved crops and animals. Consonant with **sustainable agriculture**, alternative agriculture focuses on those farming practices that go beyond traditional or **conventional agriculture**, though it does not exclude conventional practices that are consistent with the overall system.

Alternative fuels — Substitutes for traditional liquid, oil-derived motor vehicle fuels like gasoline and diesel. Includes **methanol**, **ethanol**, biodiesel, compressed natural gas, and others. The alternatives are promoted for pollution reduction properties and/or to reduce U.S. dependence on imported oil. **Ethanol** can be produced from grain, agricultural wastes, and excess crops.

(American) Heritage Rivers Protection Program — A Clinton Administration initiative to deliver federal resources more efficiently and effectively that supports voluntary community efforts to enhance and protect designated rivers or river segments; the designations were selected based on proposals submitted by local sponsors. Portions of these designations are located in or affect agricultural lands.

AMI — American Meat Institute.

Ammonia — A pungent alkaline gas, a compound of **nitrogen** and hydrogen (NH₃). It is formed naturally when bacteria decompose nitrogen-containing compounds, such as manures. Emissions of ammonia can be a problem in enclosed livestock facilities, and in the ambient air they may contribute to very fine **particulate matter**. Synthetic ammonia is used as a nitrogen fertilizer. Also called anhydrous ammonia, it is the basic feed stock for the production of all nitrogen fertilizers as well as being a direct application material. Synthetic ammonia is made through a reaction between natural gas and nitrogen.

AMS — **Aggregate measure of support; Agricultural Marketing Service.**

AMTA — **Agricultural Market Transition Act.**

ANCOM — **Andean Common Market.**

Andean Common Market (ANCOM or Andean Group) — Formed in May 1969 by Chile, Ecuador, Peru, and Bolivia under the Cartagena Agreement, which called for eliminating all barriers to trade by the end of 1980 and the establishment of a common external tariff. Venezuela joined in 1973. Chile withdrew in 1976.

Animal and Plant Health Inspection Service (APHIS) — A **USDA** agency established to conduct inspections and regulatory and control programs to protect animal and plant health. It utilizes border inspections to prevent international transmission of pests and disease, administers quarantine and eradication programs, and certifies that U.S. exports meet importing countries' animal and plant health standards.

Animal Damage Control (ADC) Program — Renamed in 1997 as the **Wildlife Services (WS)** program, it is an **Animal and Plant Health Inspection Service** effort to protect agriculture, natural resources, property or **endangered species** from unwanted and potentially harmful effects of wildlife species, including predators. ADC also works to prevent wildlife/airplane collision hazards at civilian and military airports.

Animal drugs — Drugs intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in animals. The **Food and Drug Administration** has the broad mandate under the **Federal Food Drug and Cosmetic Act** to assure the safety and effectiveness of animal drugs and their use in all animals, including farm animals. Before FDA formally approves an animal drug, the sponsor or manufacturer of the drug must show in its premarket approval application that the drug is “safe and effective” in scientific testing. Such testing data, included with the application, must demonstrate a methodology to detect and measure any residue left in edible animal products and show that edible animal products when ready-to-eat are free from unsafe residues. Farmers and veterinarians treating farm animals must adhere to any restrictions about withdrawal times, or any warning or use constraints stated on the drug label.

Animal feeding operation — Facilities where animals are kept and raised in confined situations; feed is brought to the animals. The General Accounting Office estimates that there are 450,000 such operations nationwide. When large enough, these facilities are designated as **concentrated animal feeding operations** and they become subject to regulatory requirements to prevent **point source pollution**. **USDA** and the **Environmental Protection Agency** issued a Unified National Strategy for Animal Feeding Operations on March 9, 1999. The goal is to minimize water pollution from confinement facilities and land application of manure through adoption of site-specific comprehensive nutrient management plans.

Animal identification and traceback — Currently, the private marketing system, assisted by computerization of records, generally can trace products back to their original suppliers, although not necessarily all the way to the farm. It has been suggested that a type of traceback program might be formalized to better monitor and contain outbreaks of food borne illness. **USDA** has called “animal identification” an important element of any traceback system. Livestock producers already frequently identify their animals using back-tags, ear tags, tattoos, and other devices, so that incorporating animal identification into a traceback program might not be difficult. While few dispute the usefulness of animal identification and traceback systems in general, whether they should be made regulatory requirements, or remain voluntary, is a contentious issue.

Animal protein — Protein used in livestock feed that is derived from meatpacking or rendering plants, surplus milk or milk products, and marine sources.

Animal unit — A standard measure, based on feed requirements, used to combine various classes of livestock according to size, weight, age, and use. For federal lands, an animal unit represents one mature cow, bull, steer, heifer, horse, mule, or five sheep, or five goats, all over six months of age.

Animal unit month (AUM) — An animal unit month (AUM) is the amount of forage needed to sustain one **animal unit**, or its equivalent, for one month. **Grazing fees** for federal lands are charged by animal unit months or **head-months**.

Animal Welfare Act — P.L. 89-544 (August 24, 1966) was enacted to curb the theft and mistreatment of dogs and cats for experimental and research purposes. The principal federal animal protection law, it has been amended several times to address specific concerns such as the shipping of pets on public transportation, dog fighting, and using other warm-blooded animals in biomedical experiments. Although administered by the **Animal and Plant Health Inspection Service**, the law has always excluded farm animals from its coverage. Generally, **USDA** is authorized to “promulgate standards to govern the humane handling, care, treatment, and practices in experimental procedures to ensure that animal pain and distress are minimized....” The law excludes from the definition of animal “...horses not used for research purposes and other farm animals, such as, but not limited to livestock or poultry, used or intended for use as food or fiber, or livestock or poultry used or intended for use for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber.”

Animal welfare has become more controversial in recent years as certain animal protection groups have argued for more extensive legal protections for animals. Some groups believe that any human uses of animals are inhumane, unethical and/or immoral, and should be prohibited. Among those who accept the premise that humans should and will use animals for food and other necessities, the debate over the meaning of animal welfare revolves around the most appropriate methods for taking care of animals, including farm animals. For example, legislation has been proposed (but not enacted) in recent years that would intervene in animal production operations by regulating confinement facilities; determining the diets of veal calves; specifying how poultry must be slaughtered; and prohibiting dealers from handling nonambulatory (**downer**) livestock unless they are humanely killed.

ANPR — Advance notice of proposed rulemaking.

Antemortem— Before slaughter. As used in the meat and poultry inspection program, the term refers to the examination that **USDA** meat inspectors are required to conduct of all live animals just before they are killed.

Antibiotics — Chemical substances produced by microorganisms or synthetically that inhibit the growth of, or destroy, bacteria. Antibiotics are used at therapeutic levels to fight disease in humans and animals. Since the 1950s they have been used at subtherapeutic levels in animal feeds to enhance growth and prevent disease in livestock and poultry. Rules guiding the use of veterinary drugs and medicated animal feeds, including tolerance levels for drug residues in meats for human consumption, are promulgated by the **Center for Veterinary Medicine** of the **Food and Drug Administration**. The **Food Safety and Inspection Service** enforces the FDA rules through a sampling and testing program that is part of its overall meat and poultry inspection program.

Antidumping duty — A **duty** or **levy** imposed under authority of Title VII of the **U.S. Tariff Act of 1930**. Title VII states that if the U.S. Department of Commerce determines that an imported product is being sold at less than its fair value, and if the **International Trade Commission** determines that a U.S. producer is thereby being injured, the Commerce Department shall apply antidumping duties equivalent to the **dumping** margin.

APA — **Administrative Procedure Act**.

APEC — **Asian Pacific Economic Cooperation Forum**.

APHIS — **Animal and Plant Health Inspection Service**.

Appraised stumpage price (or appraised rate)— On national forests, the **Forest Service** estimate of the market price for timber to be cut and removed. It cannot be less than the **base rates**. The appraised price is the advertised minimum for competitive bidding by purchasers.

AQI — **Agricultural Quarantine Inspection**.

Aquaculture — The **National Aquaculture Act of 1980** defines aquaculture as “the propagation and rearing of aquatic species in controlled or selected environments, including ocean ranching.” The Act divides responsibility for most aquaculture research, regulatory and related activities among the Departments of Agriculture, Commerce, and Interior. Private aquaculture has grown rapidly and diversified in recent years; in the United States, aquaculture is dominated (80%) by catfish production.

Aquifer— An underground geological formation, or group of formations, containing usable amounts of groundwater that can supply wells or springs for domestic, industrial, and **irrigation** uses. Removing more groundwater from an aquifer than is naturally replenished is called overdrafting, and can result in a dropping water table, increased pumping costs, land subsidence (which reduces the future recharge capacity), saltwater intrusion, reduced streamflows in interconnected ground- and surface-

water systems, and exhaustion of groundwater reserves. Overdrafting groundwater occurs primarily in the Plains States and the West.

Area yield options contract — A contract entitling the holder to receive a payment when the area yield is below (above) the **put (call)** option strike yield. The strike yield is the yield at which the holder of an **option contract** can exercise the option.

ARI — Aquifer risk index.

Arid — A relatively dry climate in which annual precipitation is less than 10 inches, which generally is insufficient for crops to be grown without **irrigation**. Such areas usually are the focus of debate over federal water policies.

ARP — Acreage reduction program.

ARS — Agricultural Research Service.

ASA — American Society of Agronomy.

ASA — American Soybean Association.

ASA — American Sugar Alliance.

ASAE — American Society of Agricultural Engineers.

ASCS — Agriculture Stabilization and Conservation Service, predecessor to the **Farm Service Agency (FSA)**.

ASEAN — Association of Southeast Asian Nations.

ASFSA — American School Food Service Association.

ASIA — American Sheep Industry Association.

Asia-Pacific Economic Cooperation (APEC) forum — Established in 1989, APEC is a formal institution with a permanent secretariat located in Singapore. Its original 12 members include Australia, New Zealand, the United States, Canada, Japan, South Korea, Thailand, Malaysia, Indonesia, the Philippines, Singapore, and Brunei. In 1991, APEC admitted China, Taiwan (admitted as Chinese Taipei), and Hong Kong. Mexico and Papua New Guinea joined in 1993; Chile joined in 1994; Peru, Russia, and Vietnam joined in 1998. The 21 nation member APEC provides a forum for ministerial level discussion and cooperation on a range of economic issues including trade, investment, technology transfer, and transportation. According to APEC, a key feature that sets it apart from other international organizations is its commitment to business facilitation and the regular involvement of the private sector in a wide range of APEC activities.

Asian long-horned beetle — A serious pest of hardwood trees in its native China that by 1998 had been found in 14 states in the United States, where it has no known natural enemies. **APHIS** is now working to detect and destroy the beetle, which is virtually impossible to eradicate with pesticides because it bores deep inside trees to lay its eggs; the only known suppression method is to remove and destroy infected trees. The agency reports that the beetle, which already has led to the destruction of many trees in parts of New York, could destroy millions of acres of hardwoods—including maples, horse chestnuts, poplars, willows, and elms—if it becomes established in the environment. **APHIS** believes that the beetle has been entering the United States in solid wood packing materials such as pallets and crates from China. For that reason, in late 1998, it banned all shipments from China containing such packing materials if they have not been treated to kill the pest.

ASQ — Allowable sale quantity.

Assessment — Generally an automatic or mandatory deduction from a producer's marketing receipts used to fund activities that promote or otherwise support a particular farm product. Under certain agricultural **marketing orders** or **commodity promotion programs**, assessments may be applied against receipts to help pay for generic advertising or research. The term **check-off** is often used interchangeably with assessment. Federal deficit reduction **marketing assessments** have also been connected to certain commodity **price support** programs (dairy, peanuts, sugar, tobacco, and soybeans) to help reduce the federal budget deficit, which arguably is higher because of the programs.

Assimilative capacity — The ability of a body of water to cleanse itself; its capacity to receive waste waters or toxic materials without deleterious effects and without damage to aquatic life or humans who consume the water.

Association of Southeast Asian Nations (ASEAN) — A multilateral organization formed in 1967 by the governments of Indonesia, Malaysia, the Philippines, Singapore, and Thailand to promote economic, social, and cultural cooperation among nations in the Southeast Asian region. Brunei, Vietnam, Laos, and Myanmar joined later.

ASTA — American Seed Trade Association.

ATO — Agricultural Trade Office.

Atrazine — A selective herbicide, widely used on corn. It is environmentally significant, since it was the second most commonly detected pesticide residue in an **Environmental Protection Agency** survey of drinking water wells conducted during 1988-1990. Due to concerns about groundwater contamination and worker exposure, EPA is conducting a **special review** of atrazine registration.

Attainment area — An area considered to have air quality as good as or better than the **National Ambient Air Quality Standards** as defined in the **Clean Air Act**. An area may be an attainment area for one pollutant and a non-attainment area for others.

Attractant — A chemical or agent that lures insects or other pests by stimulating their sense of smell. Attractants are a nontoxic technique for luring insects into traps and are heavily used in orchard crops. Though distinct from toxic baits, attractants are regulated as pesticides.

AU — Animal unit.

Audubon Society — National Audubon Society.

AUM — Animal unit month.

Australian Wheat Board (AWB) — A statutory marketing agency, which handles Australia's domestic marketing of wheat and export marketings of wheat and flour. Under the Australian system, farmers take their wheat to elevators designated as official handling agents for the AWB. Following delivery, farmers receive an initial payment, then over a period of time (which can be over a year) they receive additional payments until the full price has been paid. AWB becomes a grower-owned and controlled company operating under Australian corporation laws on July 1, 1999.

AVMA — American Veterinary Medical Association.

AWA — Animal Welfare Act.

AWB — Australian Wheat Board.

AWP — **Adjusted world price.**

AWT — Advanced wastewater treatment.

B&I — Business and Industry Guaranteed Loan Program.

BACT — Best available control technology.

Balance of payments — An accounting statement measuring the value of goods, services and capital exchanged between a country and all foreign countries. A nation is said to have either: (1) a balance of payments deficit if it sends abroad less in goods, services, and capital than it receives from foreigners; or (2) a balance of payments surplus if it sends abroad more in goods, services, and capital than it receives.

Balance of trade — The difference in value between a country’s merchandise imports and exports in a specified period. A country’s balance of trade is only one factor — though an important one — in its **balance of payments**.

Band application — The spreading of chemicals over, or next to, each row of plants in a field, as opposed to **broadcast application**.

Bankhead-Jones Farm Tenant Act of 1937 — P.L. 75-210 authorized acquisition by the federal government of damaged lands to rehabilitate and use them for various purposes. Both the **Forest Service** and the **Bureau of Land Management** manage some Bankhead-Jones lands. Some Forest Service Bankhead Jones lands are **National Grasslands**.

Bank for Cooperatives (BC) — Lending institution within the **Farm Credit System** that provides credit to agricultural cooperatives and rural utility cooperatives nationwide. Nationally chartered CoBank Agricultural Bank (Denver) has the authority to finance U.S. agricultural exports and to provide international banking services to farmer-owned cooperatives.

Bargaining association — A farmer cooperative intended primarily to influence farm prices or other terms of trade between the members and the buyers of the commodities they produce.

Barrows and gilts — A barrow is a young castrated male hog; a gilt is a young female hog. Both are raised for pork. Market news reports of prices paid for “barrows and gilts” are of keen interest to producers and packers alike.

Barter — A form of **countertrade** in which goods having comparable values are exchanged under a single contract, within a specified period of time, and without any flow of money taking place. The U.S. government ran a barter program from 1950 to 1973, exchanging surplus agricultural commodities for strategic materials and for goods and services it otherwise would have purchased. In addition, barter agreements between the United States and Jamaica were signed in 1982 and 1983.

Base (or contract) acreage — A farm’s crop-specific acreage of wheat, feed grains, upland cotton, or rice eligible to enroll in **commodity programs** under previous legislation, and subsequently eligible for **production flexibility contracts** under the **FAIR Act of 1996**. Base acreage equaled land planted for harvest to the crop, plus any land enrolled in **Acreage Reduction Programs**, plus land considered planted to the crop in **zero, 50/85-92** or under permitted normal flex or optional **flex acreage** during a specified period of time. A farmer’s crop acreage base was reduced by the portion of land placed in the **Conservation Reserve Program (CRP)**, but increased by CRP base acreage leaving the CRP.

Base period price — The average price for an item in a specified time period used as a base for an index — such as 1910-14, 1957-59, 1967, 1977, or 1982. Time series of data are often deflated to a base period price. Such deflated time series are referred to as constant dollar values (versus nominal dollar values).

Base property — For the **Bureau of Land Management**: land or water resources, owned or controlled by a holder of a **grazing permit** or lease, that are suitable to support livestock for a part of the year. For the **Forest Service**: lands and improvements owned and used by a permittee for a farm or ranch and designated by the permitted to qualify for a **grazing permit**. One must own or control base property to be eligible for permits or leases to graze private livestock on federal lands.

Base rates — The minimum cash price for **national forest** timber to be cut and removed.

Basic commodities — Six agricultural crops (corn, cotton, peanuts, rice, tobacco, and wheat) declared by **permanent law** as requiring federal **price support**.

Basic formula price (BFP) — Calculated monthly by **USDA**, the BFP is the base price for all milk regulated by federal **milk marketing orders**. Currently, the BFP is based on the preceding month's average price of Grade B milk paid by processors in Minnesota and Wisconsin, adjusted by current-month changes in the value of certain manufactured dairy products.

Basing point — A geographical site used to establish fixed rates and/or prices for federal **milk marketing orders**. Generally, rates or prices increase according to the distance from the basing point. The **FAIR Act of 1996** authorizes **USDA** to consider the use of **multiple basing points** for pricing milk under federal milk orders.

Basis — The difference between the current **spot price** (or **cash price**) of a commodity and the price of the nearest **futures contract** for the same or a related commodity. Basis is usually computed in relation to the futures contract next to expire and may reflect different time periods, product forms, qualities, or locations.

Basis risk — The possibility of unexpected variation in basis and a resulting loss of expected revenue when a **futures contract** is liquidated and the commodity sold on the cash market.

BAT — Best available technology.

bbf — Billion board feet.

BC — **Banks for Cooperatives**.

BCS — Basic conservation systems.

B&CMA — Biscuit and Cracker Manufacturers' Association.

BCT — Best control technology.

Beef (cattle) price index (BPI) — An index of the weighted average annual price for beef cattle, excluding calves, for a 16 western state area as compared with a specific base period equal to 100. This index is used in calculating federal **grazing fees**.

Below-cost timber sale — A timber sale from national forest lands in which the expected federal revenues are less than the estimated federal expenses to sell the timber.

Best management practices (BMP) — A **conservation practice** or combination of practices designed to maintain agricultural productivity while reducing **point-** and **nonpoint-** source water pollution. State water quality agencies (or their designees) determine BMPs to fit local conditions and to make the most efficient use of natural resources and purchased inputs.

BFP — **Basic formula price**.

BFW — Bread for the World.

BGH — Bovine growth hormone (see **bovine somatotropin**).

BICO Report — The **Foreign Agricultural Service's** report of U.S. agricultural export and import data on **Bulk**, **Intermediate**, and **Consumer-Oriented** (BICO). In addition, the data base includes forest products and edible fish and seafood products. These trade data are further classified among 46 separate product groups. Data are available in both calendar and fiscal year format and for 16 world regions and 35 individual country markets. The BICO data can be accessed at.

Bilateral trade agreement — A trade agreement between any two countries. The agreement may be either preferential (the obligations and benefits apply only to the two countries involved) or **most-favored-nation** (the benefits and obligations negotiated between the two countries are extended to all or most other nations). The U.S.-Israel Free Trade Agreement is one example of a preferential trade agreement.

Bill Emerson Good Samaritan Act of 1996 — P.L. 104-210 (October 1, 1996) was named in honor of the late Congressman who was a champion of efforts to expand food donations to the poor and to protect those who make donations. It converts the **Model Good Samaritan Food Donation Act** to permanent law and incorporates it into the **Child Nutrition Act of 1966** (section 22). Good samaritan laws are designed to encourage the donation of food and groceries to nonprofit charitable agencies by minimizing the risks of legal actions against donors and distributors of foods. The 1996 amendments exclude from civil or criminal liability a person or nonprofit food organization that, in good faith, donates or distributes donated foods for food relief. The new law does not supersede state or local health regulations and its protections do not apply to an injury or death due to gross neglect or intentional misconduct.

Bioaccumulation — The absorption and concentration of toxic chemicals, heavy metals, and certain pesticides in plants and animals. Toxicity can be expressed in several ways: lead that is ingested by calves can bioaccumulate in their bones, interfering with calcium absorption and bone development; stored chemicals may be released to the blood stream at a later time, for example, during gestation or weight loss; and chemicals may concentrate to lethal levels at upper ends of the food chain. Bioconcentration is a synonym for bioaccumulation.

Biochemical oxygen demand (BOD) — A measure of the amount of oxygen consumed by natural, biological processes that break down **organic** matter, such as those that take place when manure or sawdust is put in water. High levels of oxygen-demanding wastes in waters deplete **dissolved oxygen (DO)** thereby endangering aquatic life. Sometimes referred to as "biological oxygen demand. Chemical oxygen demand (COD) is a measure of the oxygen consumed when organic matter is broken down chemically rather than biologically. COD can be determined much more quickly than BOD and more accurately reflects the amount of organic matter in a water sample. BOD is a standard measure of water quality.

Bioconcentration — See **bioaccumulation**.

Biodiesel — Biodiesel is registered with the **Environmental Protection Agency** as a pure fuel or as a fuel additive and is a legal fuel in commerce. It is typically produced through the reaction of a vegetable oil or animal fat with methanol in the presence of a catalyst to yield glycerin and biodiesel (chemically called methyl esters). It is an alternative fuel that can be used by itself or blended with petroleum diesel for use in diesel engines. Its use can result in substantial reduction of unburned hydrocarbons, carbon monoxide, and particulate matter. Provisions of the Energy Conservation Reauthorization Act of 1998 (ECRA, P.L. 105-388) amended the Energy Policy Act of 1992 (EPACT, P.L. 102-486) to allow that the use of biodiesel added to conventional diesel at blends of 20% and higher would produce credits to offset up to 50% each year of alternative fuel vehicle acquisition requirements. Farmers and processors anticipate that increased use of biodiesel will strengthen the market for soybean oil.

Biodiversity (or biological diversity) — In general, the variety and variation among plants, animals, and microorganisms, and among their ecosystems. It has 3 levels: ecosystem diversity, **species** diversity, and genetic (within species) diversity. The concept of maintaining biodiversity holds that civilization should preserve the greatest possible number of existing species so that a highly diverse genetic pool, which can be tapped for useful and beneficial characteristics, will be available into the

future. Genetic diversity provides resources for genetic resistance to pests and diseases. In agriculture, biodiversity is a production system characterized by the presence of multiple plant and/or animal species, as contrasted with the genetic specialization of **monoculture**.

Bioengineering — See **genetic engineering**.

Biological control — The practice of using beneficial natural organisms to attack and control harmful plant and animal pests and weeds is called biological control, or biocontrol. This can include introducing predators, parasites, and disease organisms, or releasing sterilized individuals. Biocontrol methods may be an alternative or complement to chemical pest control methods. Biocontrol is part of the **Animal and Plant Health Inspection Service** program to control several economically important pests of food and fiber crops; it also is researched and used by other **USDA** agencies that promote **integrated pest management**.

Biological monitoring — Using living organisms to test the quality of either **effluent** to be discharged into receiving waters, or waters downstream from a discharge.

Biological oxygen demand — See **biochemical oxygen demand**.

Biologics — Immunization vaccines, bacterins, antigens, and antitoxins and other preparations made from living organisms and their products, intended for use in diagnosing, immunizing, or treating humans or animals, or in related research. The **Animal and Plant Health Inspection Service** has responsibility for approving some animal biologics. See **Veterinary biologics**.

Biomagnification (or biological magnification) — The increase in the concentration of bioaccumulated toxic chemicals in organisms higher on the food chain due to preferential storage of the toxic chemical in edible body parts. For example, chlorinated pesticides concentrate in the fat and skin of fish in contaminated lakes and streams and are biomagnified when those fish are eaten by larger fish, and perhaps eventually by mammals or birds of prey.

Biomass — The generic term for any living matter that can be converted into usable energy through biological or chemical processes. It encompasses feedstocks such as agricultural crops and their residues, animal wastes, wood, wood residues and grasses, and municipal wastes.

Biopesticide — A **pesticide** that is biological in origin (i.e., viruses, bacteria, pheromones, natural plant compounds) in contrast to synthetic chemicals. Transgenic **Bt** cotton and corn are **biopesticides** because *Bacillus thuringiensis* (Bt) is a naturally occurring soil bacterium that has been genetically engineered into the plants.

Bio-security; bio-terrorism — “Bio-security” refers to the policies, and measures taken, for protecting a nation’s food supply and agricultural resources from both accidental contamination and deliberate attacks of “bio-terrorism.” Now viewed as an emerging threat, bio-terrorism might include such acts as introducing pests intended to kill U.S. food crops; spreading a virulent disease among animal production facilities; and poisoning water, food, and blood supplies. The federal government is now increasing its efforts to improve bio-security because of the recognition that the United States is currently vulnerable, both from a civil and military standpoint.

Biotechnology — See **genetic engineering**.

Blair House Agreement — The November 1992 agreement between the United States and the European Union on **export subsidy** and domestic subsidy reduction commitments in the **Uruguay Round** of multilateral trade negotiations. The agreement also dealt with some bilateral agricultural trade issues.

Blend price — Primarily used in the federal **milk marketing order** program. Represents the weighted average price of milk, per hundred pounds, paid to each farmer based on how Grade A (fluid grade) milk is allocated to different usage classes (e.g., fluid, manufacturing) by processors.

Blended credit — A federal export promotion program operated from 1983 to 1985 by the **Foreign Agricultural Service**. Federally guaranteed commercial loans at market interest rates (**GSM-102**) were combined (blended) with **direct export credits** (GSM-5) issued by the **CCC** at zero interest. This subsidized credit was made available to selected countries for a limited number of agricultural commodities. The program was terminated in 1985 when a federal judge determined that commodities shipped under blended credit were subject to cargo preference laws, which would have required that 50% of blended credit exports be shipped on higher-cost U.S. flag vessels.

Blending — In grain marketing, the combining of two different qualities of grain in order to change the total value of both lots. For example, it is common to blend grains of differing moisture or different foreign material content to achieve the requirements of a contract order.

BLM — **Bureau of Land Management**.

BLS — Bureau of Labor Statistics.

Blue box policies — Direct payments, under the definition of “production-limiting” measures as defined in Article 6 of the **Uruguay Round** Agreement on Agriculture, that are not subject to the commitment to reduce domestic support. To qualify for the exemption, payments must be based on fixed areas or yields, on a fixed number of livestock, or on 85% or less of the base level of production. See **green box**.

BMP — **Best management practice(s)**.

Board foot — A measure for lumber, equal to a 1-inch thick board that is 1 foot long and 1 foot wide in nominal dimensions (a 2x4, for example, is less than 2 inches thick and 4 inches wide, but a 1-foot long 2x4 is still counted as 2/3 of a board foot); typically reported in thousands of board feet (mbf). Also used to estimate the volume of lumber that can be produced from logs and standing trees.

Board on Agriculture — See **National Academy of Sciences**.

BOD — **Biochemical oxygen demand**; biological oxygen demand.

Boll weevil — An insect pest of cotton that is the subject of an **Animal and Plant Health Inspection Service** eradication program cooperatively funded and managed by cotton producers.

Bonus commodities — From the agricultural perspective, these are commodities donated to domestic feeding programs that **USDA** acquires for unexpected surplus removal reasons or because **Commodity Credit Corporation** holdings are not needed for other purposes, or are in danger of waste or spoilage. For example, if meat prices fall, **USDA** may buy beef and donate it to the **National School Lunch Program**, or if the **CCC** is holding an excess of cornmeal that is in danger of spoiling, it might donate this to the lunch program. From the food program perspective, these commodities are those donated in addition to the commodities that must be provided under mandatory requirements in food program statutes.

BOR — **Bureau of Reclamation**.

Botanical pesticides — Pesticides whose active ingredients are plant-produced chemicals such as nicotine, rotenone, or strychnine. Also called plant-derived pesticides. Being “natural” pesticides, as distinct from synthetic ones, they are typically acceptable to **organic farmers**.

Bottom — Usually synonymous with “vessel” or “ship.” A ship of American registry may be referred to as a “U.S. bottom,” whereas if registry is other than U.S., the ship, in U.S. usage, may be called a “foreign bottom.”

Bound tariff rate — The **most-favored-nation** tariff rate resulting from negotiations under the **General Agreement on Tariffs and Trade** (GATT) and incorporated as an integral component of a country’s schedule of concessions or commitments to other WTO members. If a GATT contracting party raises a tariff to a higher level than its bound rate, the country or countries adversely affected have the right under GATT to retaliate against an equivalent value of the offending country’s exports or to receive compensation, usually in the form of reduced **tariffs** on other products they export to the offending country.

Bovine growth hormone (BGH) — See **bovine somatotropin (bST)**.

Bovine somatotropin (bST) — Also called bovine growth hormone, bST is a naturally occurring protein that has been genetically engineered as a synthetic compound (now manufactured in large quantities and commercially available to farmers) that causes cows to increase the efficiency of milk production per unit of feed consumed. Its use has caused public controversy, and some states require retail dairy product labels to identify the use of synthetic bST.

Bovine spongiform encephalopathy (BSE) — Commonly known as “mad cow disease,” BSE is a slowly progressive, incurable disease affecting the central nervous system of cattle, first diagnosed in Britain in 1986. Consumption by cattle of BSE-contaminated **ruminant** proteins in animal feed has been cited as one possible means of transmission. Scientists have confirmed a link between BSE in cattle and several dozen recent European cases of a human variant of BSE, **Creutzfeldt-Jacob disease**. More than 77,000 cattle suspected of having been exposed to the disease have been slaughtered in Great Britain, and a ban on ruminant protein-containing feeds was imposed in 1988. To date, no BSE has been found in U.S. cattle, although other BSE-like animal diseases are found in the United States, including **scrapie** in sheep and goats. **USDA** banned the importation of live cattle from Great Britain in 1989, and imposed a partial ban on using ruminant protein in animal feed in 1997.

Bovine tuberculosis — A highly contagious disease of cattle that causes severe economic losses, especially in dairy herds. The **Animal and Plant Health Inspection Service** quarantines infected herds and works with producers to eradicate the disease. The target date for total eradication has been pushed back from 1998 to after the year 2000.

Boxed beef — Beef that a **packer** cuts into relatively small pieces, seals in vacuum packs, and ships in cardboard boxes, often ready for retail sale. Prior to the 1970s, most beef left the packer as partial carcasses.

BPI — Beef (Cattle) Price Index.

BPJ — Best professional judgment.

BPT — Best practicable technology, best practicable treatment.

Breastfeeding promotion — Relates to activities required to be carried out by state and local agencies using federal funds provided for nutrition education and administrative services under the **WIC** program. States are required to use a portion of funds they receive to promote breastfeeding by postpartum mothers participating in the program.

Broadcast application — The spreading of pesticides or fertilizers over an entire area (see **band application**).

Broiler — A young chicken, usually 6 to 8 weeks old and 3 to 5 pounds, raised primarily for its meat.

Brucellosis — A highly contagious disease of cattle, goats, sheep, and swine that can be transmitted to humans (undulant fever). The **Animal and Plant Health Inspection Service** conducts an eradication program that is expected to eliminate brucellosis from U.S. cattle herds by the end of 1999.

BSE — Bovine spongiform encephalopathy.

bST — Bovine somatotropin.

Bt — *Bacillus thuringiensis* is a naturally occurring soil bacterium commonly known as Bt. It is a biological pesticide (**biopesticide**) used as a spray or dust and also in several genetically engineered plants. The plants have a gene from Bt inserted into their own genetic material. This new gene produces a natural protein that kills insects after the protein is ingested. The toxins are specific to a small subset of insects. Cotton has been genetically altered to control the tobacco budworm, bollworm and pink bollworm. Potatoes have been altered to control the Colorado potato beetle. A new hybrid of Bt corn, altered to be resistant to the European corn borer, became available for the 1997 planting season. Bt degrades rapidly to non-toxic compounds. It is not known to present any human or animal hazards. However, recent reports suggest that it may harm certain beneficial insects, such as monarch butterflies. **Pest resistance management (PRM) plans** are required by the **Environmental Protection Agency** as part of the registration.

bu. — bushel.

Buffer strips — Slender areas of permanent vegetation, often planted along the edge or the contour of a field, usually to slow the flow of water or the velocity of wind, in order to capture sediment and other materials before they leave the farm and become pollutants. Types of buffers include **filter strips**, field borders, **grassed waterways**, field windbreaks, **shelterbelts**, contour grass strips, and **riparian buffers**.

Bulgur — Wheat that has been parboiled, dried, and partially debranned for later use in cracked or whole grain form.

Bulk carrier — Refers to two types of cargo ships: the dry-bulk carrier and the liquid-bulk carrier, better known as a tanker. Bulk cargo is a shipment such as oil, grain, or ore, that is not packaged, baled, bottled, or otherwise packed and is loaded without counting or marking.

Bulk commodities — Generally, high volume, low value unprocessed agricultural commodities, which are treated as though they are homogeneous (**fungible**) in nature prior to processing. Grains, oilseeds, and cotton are considered bulk commodities. Contrasting categories are **high value** commodities, semiprocessed and processed commodities, and consumer ready commodities.

Bureau of Land Management (BLM) — A bureau within the **Department of the Interior** that has exclusive jurisdiction over about 268 million acres of federally owned lands. Approximately one-third of this area is in Alaska. The majority of the remaining acreage is in the Western States.

Bureau of Reclamation (BOR) — A bureau within the **Department of the Interior**, whose mission is to manage, develop, and protect water and related resources. The agency replaced the Reclamation Service, which was established pursuant to the **Reclamation Act of 1902** to “reclaim (**arid lands**) throughout the West through irrigation.” The Bureau built, operates, and maintains more than 300 storage dams on rivers throughout the western United States.

Burley tobacco — The main type of air-cured tobacco; a cigarette tobacco that together with flue-cured tobacco account for more than 90% of total U.S. production. Burley tobacco production is limited by national **marketing quotas** and eligible for nonrecourse **price support** loans. Its production centers in Kentucky.

Bushel — A dry volume measure of varying weight for grain, fruit, etc., equal to four pecks or eight gallons (2150.42 cubic inches). A bushel of wheat, soybeans, and white potatoes each weighs 60 pounds. A bushel of corn, rye, grain sorghum, and flaxseed each weighs 56 pounds. A bushel of barley, buckwheat, and apples each weighs 48 pounds.

Business incubator — A facility that supports the development and operation of a number of small start-up businesses. Tenants of the facility share a number of support services including computers, support staff, telecommunications equipment, and janitorial services. Occupants also may receive technical assistance, business planning, legal, financial, and marketing advice.

CAA — Clean Air Act.

Cabotage — Trade or transport in coastal waters between ports within the same country. U.S. “cabotage” legislation— notably the so-called **Jones Act** — is designed to support the maritime industry.

CACFP — Child and Adult Care Food Program

CAFO — Concentrated animal feeding operation.

Cairns Group — An informal association of 15 agricultural exporting countries, formed in 1986 at Cairns, Australia. Members are Argentina, Australia, Brazil, Canada, Chile, Columbia, Fiji, Indonesia, Malaysia, New Zealand, Paraguay, the Philippines, South Africa, Thailand, and Uruguay. This group, during the **Uruguay Round**, sought removal of trade barriers and substantial reduction in subsidies affecting agricultural trade.

Call option — A contract that entitles the buyer the right, but not the obligation, to purchase an underlying **futures contract** at a stipulated **basis** or **strike price** at any time up to the expiration of the option. The buyer pays a premium to the seller for this contract. A call option is bought with the expectation of a rise in prices. See **put option**.

Campylobacteriosis — A diarrheal disease often caused by the type of bacteria known as *Campylobacter jejuni* (*C. jejuni*) associated with poultry, raw milk, and water. There are an estimated 2.5 million cases annually in the United States with 200 to 730 deaths. Campylobacteriosis has been linked to Guillain-Barre syndrome (a disease which paralyzes limbs and breathing muscles) as well as Epstein-Barr, Cytomegalovirus, and other viruses. **USDA** has estimated that this disease costs the United States between \$1.2 to \$1.4 billion annually in medical costs, productivity losses, and residential care.

Canadian Wheat Board (CWB) — A quasi-governmental self-financed agency, established in 1935, that markets Canadian wheat, oats, and barley on behalf of producers. Commercial grain is put into annual marketing pools by grade, with the pool period lasting 12 months and ending July 31. The CWB markets the grain to domestic and foreign buyers, with unsold grain transferred to the pool established for the next year. The overall procedure ensures a uniform per-bushel return, excluding storage costs, to all producers for each grade, regardless of the time they deliver their grain to elevators. The flow of grain from farm to terminal is closely regulated. The CWB also works to develop new markets for Canadian wheat and has authority to enter into long-term supply contracts with foreign countries.

Cancellation — Refers to an action taken under Section 6(b) of the **Federal Insecticide, Fungicide and Rodenticide Act** (FIFRA) to cancel a **pesticide** registration for one or more specific uses when the **Environmental Protection Agency** finds the use results in unreasonable adverse effects to the environment or public health when a product is used according to

widespread and commonly recognized practice, or if its labeling or other material required to be submitted does not comply with FIFRA provisions.

CAP — Common Agricultural Policy.

Capper-Volstead Act — P.L. 67-146 (February 18, 1922), with a bit of exaggeration, is sometimes called the Magna Carta of Cooperation. The law was passed in response to challenges made against **cooperatives** using the **Sherman Antitrust Act**, the **Clayton Antitrust Act**, and the **Federal Trade Commission Act**. It gave “associations” of persons producing agricultural products certain exemptions from antitrust laws. The law carries the names of its sponsors, Senator Arthur Capper of Kansas and Congressman Andrew Volstead of Minnesota.

Captive supply — Products that manufacturers or processors own or contract to purchase for future delivery so as to have a predictable source of raw materials for their plants. In agriculture, the term often is used, for example, to refer to the cattle that beef packers own or contract to purchase 2 weeks or more before slaughter. Examples of such contracts include an exclusive agreement with an individual feedlot in which the price is based on market prices at time of slaughter; or a contract in which the price is specified in advance or is based on some other formula. At issue is the effect that captive supplies have on prices paid to cattle producers.

Carbon sequestration — Retention of carbon in ways that prevent or delay its emission to the atmosphere as carbon dioxide. This may help mitigate climate change by reducing the amount in the atmosphere. Silvicultural practices that encourage rapid, long term tree growth are an example. Crop residue retention practices designed to prevent erosion and improve the productivity of soil, such as **conservation tillage**, also retain larger amounts of carbon compared to many traditional cultivation practices.

Carcass weight — The weight of an animal after slaughter and removal of most internal organs, head, and skin. On average, a beef carcass is about 60% of the weight of the live animal, for hogs it is about 73%.

Carcass-by-carcass inspection — Usually refers to language in the federal **Meat Inspection Act** and the **Poultry Products Inspection Act**, respectively, that requires the **Food Safety Inspection Service** to inspect the carcass of each animal killed for human food, immediately after slaughter.

Carcinogen — Any substance that produces or promotes cancer. This is a key consideration in evaluating the safety of pesticides and other chemicals.

CARD — Center for Agricultural and Rural Development.

Cargo preference — The **Cargo Preference Act** (P.L. 83-664) requires that whenever the federal government pays for equipment, material, or commodities shipped to other countries, a minimum percentage of the gross tonnage shipped by sea must go by U.S. flag vessels. Cargo preference requirements have been an issue in U.S. international **food aid** and **export subsidy** programs.

Cargo Preference Act — P.L. 83-644 (August 26, 1954), as amended, contains permanent legislation concerning the transportation of waterborne cargoes in U.S.-flag vessels. The Act requires that 75% of the volume of U.S. agricultural commodities financed under **P.L. 480** and other concessional financing arrangements be shipped on privately owned U.S.-registered vessels. Maritime interests generally support cargo preference, but proponents of P.L. 480 argue that it increases the costs of shipping U.S. commodities to poor countries and potentially reduces the volume of food aid that is provided.

Caribbean Basin Economic Recovery Act of 1983 (CBERA) — P.L. 98-67 (August 5, 1983), Title II, authorized unilateral preferential trade and tax benefits for eligible Caribbean countries, including duty-free treatment of eligible products.

This law is commonly referred to as the **Caribbean Basin Initiative (CBI)**. Amended several times, the last substantive revisions were made in the **Caribbean Basin Economic Recovery Expansion Act of 1990** (P.L. 101-382, Title II, August 20, 1990). This made trade benefits permanent (repealing the September 30, 1995 termination date).

Caribbean Basin Initiative (CBI) — A permanent program designed to increase private investment, trade, and tourism in Caribbean countries, initially created by the **Caribbean Basin Economic Recovery Act of 1983** and amended several times. It gives preferential trade and tax benefits for eligible Caribbean countries, including duty-free entry of eligible products. To be eligible, an article must be a “product” of (as defined in the U.S. general rules of origin) a beneficiary country and imported directly from it, and at least 35% of its import value must have originated in one or more CBERA beneficiaries. Slightly different import value rules apply to articles entering from Puerto Rico and the Virgin Islands. The duty-free import of sugar and beef products is subject to a special eligibility requirement that a beneficiary country submit and carry out a stable food production plan ensuring that increased production of sugar and beef will not adversely affect overall food production. Preferential tariff treatment, though, does not extend to imports of: textiles and apparel subject to textile agreements, specified footwear, canned tuna, petroleum and its products, and watches and watch parts containing any material originating in countries denied **most-favored-nation** trade status. Special criteria apply to the duty-free import of ethanol through FY2000. Import-sensitive products, not accorded duty-free tariff treatment, are eligible to enter at lower than most-favored-nation tariff rates. These products include handbags, luggage, flat goods (such as wallets, change purses, and key and eyeglass cases), work gloves, and certain leather wearing apparel.

Carrier — An **inert** material added to an active ingredient in a pesticide to enhance its delivery or effectiveness.

Carrying capacity — The maximum **stocking rate** for livestock possible without damaging vegetation or related resources. Carrying capacity may vary from year to year on the same area, due to fluctuating **forage** production. Used by the government in decisions about how many livestock will be allowed on an **allotment** on public lands.

Carryover — The supply of a farm commodity not yet used at the end of a **marketing year** and carried over into the next marketing year. An excessively large carryover is typically described as a surplus condition that causes prices to fall. When the carryover falls below normal, there may be concerns of a shortage contributing to price escalation.

Cartel — An alliance or arrangement among industrial or commercial enterprises or nations aimed at limiting competition or exercising monopoly power in a market.

Casein — The major portion of milk protein, manufactured from skim milk and used in processed foods (such as dessert toppings and coffee whiteners) and in industrial products such as glue, paint and plastics.

Cash commodity — The physical or actual commodity as distinguished from the **futures contract**. Sometimes called **spot commodity**, or actuals.

Cash forward sale — See **forward contracting**.

Cash grain farm — A farm where corn, grain sorghum, small grains, soybeans, or field peas and beans account for at least 50% of the value of farm products sold.

Cash in lieu of commodities — Refers to cash provided to food program operators (e.g., elderly nutrition programs, child care food programs, and some school food programs) in lieu of mandated commodity assistance. Recipients may use the cash to buy whatever foods they need to operate their meal service programs.

Cash market — The market for the **cash commodity** (as contrasted to a **futures contract**), taking the form of — (1) an organized, self-regulated central market (e.g., a commodity exchange); (2) a decentralized over-the-counter market; or (3) a local organization, such as a grain elevator or meat processor, which provides a market for a small region.

Cash price — The price in the marketplace for actual cash or **spot commodities** to be delivered via customary market channels.

Cash settlement — A method of settling certain **futures contracts** or **option contracts** whereby the seller (or **short** position) pays the buyer (or **long** position) the cash value of the commodity traded according to a procedure specified in the contract.

CAST — Council for Agricultural Science and Technology.

CAT — **Catastrophic crop insurance.**

Catastrophic crop insurance (CAT) — A component of the federal **crop insurance** program, authorized by the **Federal Crop Insurance Reform Act of 1994**, that compensates farmers for crop yield losses exceeding 50% of their average historical yield at a payment rate of 60% of the projected season average market price. CAT coverage requires that a farmer realize a yield loss of more than 50% and only makes payments on losses exceeding the 50-percent threshold. Producers pay no premium for CAT coverage, but except for cases of financial hardship must pay an administrative fee of \$50 per crop, up to a maximum of \$200 per county and \$600 in total (across all counties) for CAT protection. Under the Reform Act of 1994 producers were required to obtain coverage at the CAT (or higher) level for crops of economic significance (accounting for 10% or more of their farm's crop production value) in order to be eligible for various other **USDA** program benefits. The **FAIR Act of 1996** relaxed this requirement. A producer has the ability to purchase additional insurance coverage beyond CAT coverage, but must pay a premium, partially subsidized by the government, for that additional coverage.

Cattle cycle — The approximately 10-year period in which the number of U.S. beef cattle is alternatively expanded and reduced over several consecutive years in response to perceived changes in profitability by producers. Generally, low prices occur when cattle numbers (or beef supplies) are high, precipitating several years of herd liquidation. As cattle numbers decline, prices gradually begin to rise, causing cattle producers to begin adding cattle to their herds. The cycle is relatively long due to the long period of time it takes between the time a cow-calf operator decides to expand a cow herd to breed more beef cattle and the time those animals reach slaughter weight.

CBI — **Caribbean Basin Initiative.**

CBT — Chicago Board of Trade.

CCC — **Commodity Credit Corporation.**

CCI — Cotton Council International.

CD — **Conservation district.**

CDC — **Centers for Disease Control and Prevention.**

CED — **County Executive Director.**

Census of Agriculture — A comprehensive set of quantitative information on the agricultural sector of the U.S. economy, broken down to the state and county levels (i.e., number of farms, land in farms, crop acreage and production, livestock

numbers and production, production expenses, farm facilities and equipment, farm tenure, value of farm products sold, **farm size**, type of farm, among other data). The Census, conducted every 5 years, was the responsibility of the Commerce Department's Bureau of the Census. However, the FY1997 **USDA** appropriations act (P.L. 104-180, August 6, 1996) transferred funding for the Census of Agriculture to USDA's **National Agricultural Statistics Service** (NASS). NASS released the results of the 1997 Census in 1998.

Center for Food Safety and Applied Nutrition (CFSAN) — The agency within the **Food and Drug Administration** responsible for developing and overseeing enforcement of food safety and quality regulations and coordinating FDA and states' surveillance and compliance programs, among other activities. FDA's roughly 800 field inspectors (located administratively within FDA's Office of Regulatory Affairs) enforce CFSAN's food safety regulations at 53,000 processing facilities. CFSAN announced that its food safety priorities for 1999 include stepping up surveillance of imported fruits and vegetables, investigating the risk of *Listeria*, swiftly approving additives that can safeguard the nation's food supply and adopting HACCP rules for manufacturers of fruit juices, seafood and shell eggs.

Center for Veterinary Medicine — An agency within the **Food and Drug Administration** that is responsible for assuring that all animal drugs, feeds (including pet foods), and veterinary devices are safe for animals, are properly labeled, and produce no human health hazards when used in food-producing animals.

Center pivot irrigation — A self-propelled irrigation system in which a single pipeline supported on towers rotates around a central point. These systems are typically about one-quarter mile long and serve 128 to 132 acre circular fields.

Centers for Disease Control (CDC) and Prevention — An agency within the **Food and Drug Administration** that monitors and investigates food borne disease outbreaks and compiles baseline data against which to measure the success of changes in food safety programs.

Central and Eastern European Countries (CEEC) — A term for the group of countries including Albania, Bulgaria, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic, and the three Baltic States (Estonia, Latvia, and Lithuania).

CEQ — Council on Environmental Quality.

Certificates (commodity) — Legal instruments, entitling a qualified bearer to a specific dollar value of **USDA** surplus commodities. **Payment-in-kind (PIK)** "certs" either can specify the types of commodities or be generic. Certificates were heavily used during the 1980s as a means of meeting financial obligations and simultaneously disposing of CCC-owned commodities.

CFCs — Chlorofluorocarbons.

CFO — Conservation farm option; Chief Financial Officer.

CFR — **Code of Federal Regulations**.

CFSCAN — Center for Food Safety and Applied Nutrition.

CFTC — **Commodity Futures Trading Commission**.

CGIAR — **Consultative Group on International Agricultural Research**; <http://www.cgiar.org/>

Channelization — Engineering watercourses by straightening, widening, or deepening them so water will move faster. While improving drainage, this process can interfere with waste assimilation capacity, disturb fish and wildlife habitats, and aggravate flooding in other areas.

Check-off program — Usually, a reference to the generic research and **commodity promotion programs** for farm products that are financed by **assessments** applied to sales of those products by producers, importers, or others in the industry.

Chemigation — The application of a pesticide and/or fertilizer through any irrigation system. This delivery technique raises some concern that it may increase pollution.

Chemosterilant — A chemical that controls pests by preventing reproduction, thereby causing the population to collapse. This contrasts with chemicals that directly kill pests.

Child and Adult Care Food Program (CACFP) — This **child nutrition program** provides cash and commodity assistance to support meal service programs in child care centers, headstart facilities, outside of school programs, and family and group home day care homes for children, the elderly, and disabled. It is permanently authorized under Section 17 of the **National School Lunch Act**, administered by the **Food and Nutrition Service**, and funded annually by agricultural appropriations.

Child Nutrition Act of 1966 — P.L. 89-642 (October 11, 1966) was an anti-hunger initiative begun by the Johnson Administration as part of its “War on Poverty” and has been amended numerous times since then. It permanently authorizes the **special milk program** and the **school breakfast program**. The **special supplemental nutrition program for women, infants, and children (WIC)**, which provides federal grant funds to states for monthly food packages and nutrition education for low-income mothers and young children, is authorized under this Act through FY2003, as is federal spending for state administrative expenses (SAE) associated with the operation of child nutrition meal service programs and the **nutrition education and training (NET) program**.

Child nutrition programs — A grouping of programs funded by the federal government to support meal and milk service programs for children in schools, residential and day care facilities, family and group day care homes, and summer day camps, and for low-income pregnant and postpartum women, infants, and children under age 5 in local WIC clinics. Programs include **school lunch, school breakfast, summer food service, special milk, commodity distribution, nutrition education and training program**, and the **special supplemental nutrition program for women, infants and children (WIC)**. These programs are authorized under the **National School Lunch Act** and the **Child Nutrition Act of 1966**; are financed by annual agricultural appropriations laws; and are administered by the Food and Consumer Service of **USDA**. Changes to the authorizing statutes generally are made by the Agriculture Nutrition and Forestry Committee in the Senate. In the House, the Education and the Workforce Committee deals with most changes to child nutrition program authorizing statutes, although the Agriculture Committee usually is involved when proposed changes concern commodity distribution, food issues, and requirements affecting agricultural interests and the **farmers market nutrition program**.

Chlorinated hydrocarbons — Also known as organochlorines, these synthetic organic compounds contain chlorine. They tend to be persistent in the environment and to **biomagnify** in the food chain. Chlorinated hydrocarbons that are pesticides include DDT, aldrin, dieldrin, heptachlor, chlordane, lindane, endrin, mirex, hexachloride, and toxaphene. Most chlorinated hydrocarbon pesticide uses have been canceled because of their persistence, propensity to **bioaccumulate**, and toxicity to nontarget species.

Chlorophenoxy herbicides — A class of pesticides that includes 2,4-D. They mimic plant hormones. Uses of some have been canceled because of concerns about adverse health effects.

Cholinesterase inhibitors — A class of chemicals that includes numerous insecticides, such as parathion or carbaryl. They inhibit an enzyme found in animals that regulates nerve impulses. Cholinesterase inhibition is associated with a variety of acute symptoms such as nausea, vomiting, blurred vision, stomach cramps, and rapid heart rate.

Chronic toxicity — The capacity of a substance to cause long-term or delayed adverse health effects. For example, a cancer resulting from exposure to a carcinogen may not appear for years or decades.

C.I.F. (or c.i.f.) — **Cost, insurance, and freight.**

CIPs — **Commodity import programs.**

CIS — **Commonwealth of Independent States.**

CJD — **Creutzfeldt-Jakob disease** (see **bovine spongiform encephalopathy**).

Class I differential — Under federal **milk marketing orders**, the minimum price a processor must pay for milk used for fluid consumption (Class I milk) is the **basic formula price** plus the Class I differential. The Class I differential varies by about \$3.00 per hundredweight (cwt.) between the Upper Midwest and Southeast Florida. The Class I differential accounts for the costs of transporting milk, the added costs of marketing milk going into fluid milk products, and the higher cost of producing Grade A milk required for fluid products.

Class I equivalency — The amount of less productive land in a water district receiving Bureau of Reclamation water (Classes 2, 3, and 4) that would be necessary to be equivalent in productive potential to **Class I land**. This equivalency rating is made to adjust the number of acres that may be irrigated (see **acreage limitation**) so that less productive lands are equivalent in productive potential to 960 acres of Class I land.

Class I land — Under **reclamation law**, Class I land is defined as irrigable land within a particular agricultural economic setting that is productive enough to yield the highest level of suitability for continuous, successful irrigation farming, and has the highest relative productive potential as measured in net income per acre.

Class I Railroad — Any railroad with annual gross revenues of at least \$250 million (in 1991), according to the U.S. Department of Transportation. These are the largest long-distance U.S. railroad systems such as Union Pacific-Southern Pacific, Norfolk Southern, CSX, and Burlington Northern-Santa Fe, which own most of the track in the United States. Since passage of the Staggers Rail Act of 1980, aimed at deregulating the once highly-regulated industry to make it more efficient and cost-competitive, the number of Class I railroads has declined through consolidations and mergers, from more than 30, to eight in 1998. This consolidation has concerned many agricultural shippers—particularly those who lack access to nearby markets or to water transportation—fearful of higher prices due to lack of competition.

Classified pricing — The pricing system of federal **milk marketing orders**, under which milk processors pay into a pool for fluid grade (Grade A) milk; its value is based on how the milk ultimately is used. Milk used for fluid (Class I) consumption receives a higher price than milk for processed (Class II, Class III, Class IIIa) dairy products.

Clayton Act — A 1914 law that supplemented the **Sherman Anti-Trust Act** of 1890 by clarifying market activities (including those in agriculture) considered to be monopolistic or trade-restraining. The **Capper-Volstead Act** later exempted agricultural cooperatives from certain Clayton and Sherman Act provisions.

Clean Air Act — The primary federal law governing efforts to control air pollution. Federal legislation addressing air pollution was first adopted in 1955 (**Air Pollution Control Act**, P.L. 84-159) to provide research and technical assistance. Subsequent amendments, most notably the **Clean Air Act Amendments of 1970** (P.L. 91-604), 1977 (P.L. 95-95), and 1990 (P.L. 101-

549), strengthened the federal role. The **Clean Air Act** seeks to protect human health and the environment from emissions that pollute the air. The **Environmental Protection Agency** is required to establish minimum **National Standards Ambient Air Quality Standards (NAAQS)**, while states are assigned primary responsibility for developing compliance. Areas not meeting the standards (nonattainment areas) are required to implement specific control measures. There is no direct federal regulation of agriculture under the **Clean Air Act**. Two of the NAAQS (for particulates and **ozone**) could affect agriculture: particulates, because certain agricultural practices, such as prescribed burning and tilling, create airborne particles that might be targeted for control in State Implementation Plans; and ozone, because concentrations of ozone above the standard can adversely affect crop yields. Ozone is formed in the atmosphere when **nitrogen** oxides and volatile organic compounds (from manufacturing, transportation, and utilities) react in the presence of sunlight (agriculture rarely if ever represents significant sources of ozone precursors).

Clean Water Act — This is the principal law governing pollution of the nation’s rivers, lakes, estuaries, and coastal waters. Originally enacted in 1948 as the **Federal Water Pollution Control Act** (P.L. 80-845), it was totally revised by amendments in 1972 that gave the Act its current name and shape (P.L. 92-500). The objective of the Act is the restoration and maintenance of the chemical, physical, and biological integrity of the nation’s waters. The Act is implemented by the **Environmental Protection Agency** in partnership with state and local governments. Programs in the Act have been primarily directed at managing **point source pollution** (wastes discharged from industrial facilities, sewage treatment plants, and municipal storm sewer systems). Agricultural activities have been less of a focus, but some may be affected by the **Clean Water Act**. Large confined animal feeding operations are treated like industrial sources and are subject to permit requirements. Programs to manage **nonpoint source pollution** (rainfall runoff from farms, rangelands, forests, etc.) may affect agriculture. However, **irrigation** return flows are specifically exempt from regulation. A program in the Act that regulates discharges of dredged and fill material into wetlands (**Section 404**) requires permits for activities on agricultural **wetlands**.

CLOC — **Commodity letters of credit.**

CMA — Chemical Manufacturers Association.

CME — Chicago Mercantile Exchange.

CMS — Conservation management system.

CNP — **Child nutrition programs.**

CNPP — Center for Nutrition Policy and Promotion.

CO — Conservation operations.

COAP — **Cottonseed Oil Assistance Program.**

Coastal Zone Management Program — P.L. 92-583 (October 27, 1972) created the Coastal Zone Management Program in 1972 to provide grants to eligible states and territories as an incentive to prepare and implement plans guiding the use of coastal lands and resources. Amendments in 1990 require participants to develop **nonpoint pollution** programs. These programs must specify and implement management measures to restore and protect coastal waters. For agriculture, management measures are specified for **erosion**, sediments, nutrients, pesticides, grazing, and animal waste. Participants must implement these management measures after they have been approved by whatever means necessary, including regulation. Federal approval of state proposals is pending.

CoBank — **National Bank for Cooperatives.**

COC — County Office Committee.

COD — Chemical oxygen demand.

Code of Federal Regulations (CFR) — The codification of the general and permanent rules published in the **Federal Register** by the Executive departments and agencies of the federal government. The Code is divided into 50 titles that represent broad areas subject to regulation. Most regulations directly related to agriculture are in title 7. Each title is divided into chapters that usually bear the name of the issuing agency, followed by subdivisions into parts covering specific regulatory areas. For example, 7 CFR 1410 are the regulations that apply to the **Conservation Reserve Program**.

Codex Alimentarius Commission — A joint commission of the **Food and Agriculture Organization (FAO)** and the World Health Organization, comprised of some 146 member countries, created in 1962 to ensure consumer food safety, establish fair practices in food trade, and promote the development of international food standards. The Commission drafts nonbinding standards for food additives, veterinary drugs, pesticide residues, and other substances that affect consumer food safety. It publishes these standards in a listing called the “Codex Alimentarius.”

Coliform index — A rating of the purity of water based on a count of fecal coliform bacteria. The presence of fecal coliform bacteria, which are harmless bacteria that live in the intestines of humans and other vertebrate animals, indicates contamination by human or animal feces, and hence the potential presence of disease pathogens.

Colonia — A substandard housing area defined in the **Housing Act of 1949** as any identifiable community that: (1) is in the states of Arizona, California, New Mexico, or Texas; (2) is in an area that is within 150 miles of the border between the United States and Mexico (except for standard metropolitan statistical areas that have a population exceeding 1 million); (3) is designated by the state or county as a colonia; and (4) is determined to be a colonia based on criteria such as lack of potable water supply, lack of adequate sewage systems, and lack of decent, safe, and sanitary housing.

Colorado River Basin Salinity Control Act — P.L. 93-320 (June 24, 1974), and the laws authorizing three other conservation cost-sharing programs, were repealed in the **FAIR Act of 1996** and replaced by a new cost-sharing program, the **Environmental Quality Incentives Program (EQIP)**. Until it was replaced, the Colorado River Basin Salinity Control Program provided cost-sharing assistance to producers to install on-farm **irrigation** system improvements to prevent irrigation water heavily charged with salts and minerals from reentering the river. Participating farmers received up to 70% of total project costs and technical assistance. Participation was concentrated at sites where problems existed. This program was available to producers in the seven states of the Colorado River **watershed**. The law was administered by the Farm Service Agency until FY1996, when administration was transferred to the Natural Resources Conservation Service.

Colorado River Basin Salinity Control Program — This program was authorized in the **Colorado River Basin Salinity Control Act** and was repealed and replaced by the **Environmental Quality Incentives Program** in the **FAIR Act of 1996**. Administered by the Natural Resources Conservation Service, it is used to implement salinity control measures, primarily to manage irrigation water using financial and technical assistance to landowners. This program supports U.S. efforts to meet international treaty obligations for downstream water quality in Mexico.

Combine — A self-propelled grain harvester. In one operation it combines cutting, threshing, separation, cleaning, and straw dispersal.

Commission on 21st Century Production Agriculture — An 11-member panel authorized by Title I-G of the **FAIR Act** (P.L. 104-127) to conduct a comprehensive review of the farm economy, including the impact of the 1996 law; and a follow-up review that must include recommendations for changes in federal agricultural policy. The commission submitted its initial review to Congress in May 1999; the second report is due on January 1, 2001.

Commodity Assistance Program — A title often used to refer to a variety of domestic programs receiving food in the form of **USDA** supplied commodities. It was formalized in FY1996 appropriations law (P.L. 104-37, October 21, 1995) for the first time to refer to the consolidation for funding purposes of three commodity donation programs that are authorized under two separate statutes: the **Emergency Food Assistance Program (EFAP)**, **Soup Kitchen-Food Bank Program**, and the **Commodity Supplemental Food Program (CSFP)**.

Commodity certificates — Payments issued by the **Commodity Credit Corporation (CCC)** in lieu of cash payments to participants in farm subsidy or agricultural export programs. Holders of **certificates** are permitted to exchange them for commodities owned by the CCC. Certificates were used not only to compensate program beneficiaries but also to reduce the large, costly, and price-depressing commodity surpluses held by the CCC during the mid-1980s.

Commodity Credit Corporation (CCC) — A wholly owned government corporation created in 1933 to stabilize, support, and protect farm income and prices (federally chartered by the Commodity Credit Corporation Charter Act of 1948 (P.L. 80-806, June 29, 1948)). The CCC, which has no staff, is essentially a financing institution for **USDA's** farm price and income support **commodity programs**, and agricultural **export subsidies**. It is authorized to buy, sell, lend, make payments and engage in other activities for the purpose of increasing production, stabilizing prices, assuring adequate supplies, and facilitating the efficient marketing of agricultural commodities. The **FAIR Act of 1996** expanded the CCC mandate to include funding for several conservation programs (including the **Conservation Reserve Program**) and made conservation one of the purposes of the CCC. The programs funded through CCC are administered by employees of the **Farm Service Agency**. The CCC has the authority to borrow up to \$30 billion from the U.S. Treasury to carry out its obligations. Net losses on financial operations subsequently are restored through the congressional appropriations process.

Commodity distribution — Direct donation of food products by the federal government to needy persons, schools, and institutions. Commodities are either entitlement or **bonus**. Bonus commodities can be received when they are available from surplus stocks purchased by the **Commodity Credit Corporation** under its **price support** program or the **Agricultural Marketing Service** under its surplus removal program (Section 32 of the **Agricultural Adjustment Act of 1935**).

Commodity Distribution Program — This program supplies authority for the Secretary of Agriculture to use agricultural surplus removal (**Section 32**) and **Commodity Credit Corporation (CCC)** funds to buy commodities for **child and elderly nutrition programs**. The Secretary is directed to use Section 32 funds not needed for other purposes and CCC funds (if stocks are not available) to buy commodities for donation to maintain the annually programmed level of commodity assistance for Child and Elderly Nutrition programs. The program is authorized through FY2003 under Section 14 of the **National School Lunch Act (NSLA)**.

Commodity Distribution Reform Act and WIC Amendments of 1987 — P.L. 100-237 (January 8, 1988) established a free-standing law requiring the **USDA** to improve the distribution and quality of commodities donated to child nutrition programs. Also established a foodbank demonstration project making use of Section 32 agricultural surplus commodities, amended the **National School Lunch Act** to permit certain pilot projects receiving cash in lieu of commodities or commodity letters of credit to continue receiving them, and amended the **Child Nutrition Act of 1966** to make a variety of changes to the WIC program to expand coordination with other programs, conduct studies, and convert certain food funding to use for administrative costs.

Commodity exchange — An organization operating under a set of bylaws aimed at promoting trade in one or more commodities by providing services and rules for the conduct of trade.

Commodity Exchange Authority — A former regulatory agency of **USDA** established to administer the **Commodity Exchange Act** prior to 1975; the predecessor of the **Commodity Futures Trading Commission**.

Commodity Futures Trading Commission (CFTC) — The independent federal regulatory agency established by the **Commodity Futures Trading Commission Act of 1974** to administer the **Commodity Exchange Act**. It regulates trading on the futures exchanges in the United States. The CFTC also regulates the activities of numerous commodity exchange members, public brokerage houses, commodity trading advisors, and commodity pool operators.

Commodity Futures Trading Commission (CFTC) Act of 1974 — P.L. 93-463 (October 23, 1974) created the Commodity Futures Trading Commission, to replace the **U.S. Department of Agriculture's** Commodity Exchange Authority, as the independent federal agency responsible for regulating the futures trading industry. The Act made extensive changes in the basic authority of Commodity Exchange Act of 1936, which itself had made extensive changes in the original Grain Futures Act of 1923.

Commodity Import Programs (CIPs) — The U.S. **Agency for International Development** uses a small portion of U.S. foreign aid funds to make grants and loans to countries judged important to U.S. foreign policy objectives. These CIPs, by making dollars available, help these countries finance purchases of U.S. commodities (including agricultural commodities) or other inputs needed to meet their development objectives and also provide balance-of-payments support to countries with very limited foreign exchange.

Commodity letters of credit (CLOC) — Food instruments issued in lieu of commodities to certain designated schools participating in the **National School Lunch Program**. These letters of credit specify the types of foods that schools must buy, which are the same types of foods being donated to other schools by **USDA** under the commodity distribution program.

Commodity loan rates — Price per unit (pound, bushel, bale, or hundredweight) at which the CCC provides **nonrecourse loans** to farmers to enable them to hold **program crops** for later sale. Commodity loans under the **FAIR Act of 1996** are **recourse** for sugar in years that imports are below 1.5 million short tons, and will become recourse for dairy in 2000.

Commodity programs — This term is usually meant to include the commodity price and income support programs administered by the **Farm Service Agency** and financed by the Commodity Credit Corporation. The commodities now receiving support are: (1) those included in the **production flexibility contract payments** program, specifically wheat, feed grains, cotton, and rice; (2) those eligible for nonrecourse **marketing assistance loans**, soybeans and minor oilseeds; (3) those under **marketing quota** limits, peanuts and tobacco; (4) sugar and milk. A broader term that includes these programs and others is **farm programs**.

Commodity promotion programs — Programs that advertise and promote an agricultural commodity or product without reference to the specific farmer, brand name, or manufacturer. Producers can and do organize voluntary commodity promotion programs, but most are operated under the authority of either federal or state laws, frequently with the objective of requiring that all members of the industry participate. At the federal level, the programs are authorized by law, implemented by industry groups (after **USDA** review, rulemaking and approval), and financed by **assessments** (also called **check-offs**) of industry members such as producers, importers, and/or handlers. In the past, Congress enacted separate laws permitting producers of specifically-designated commodities to create such programs. The **FAIR Act of 1996** also gives **USDA** general authority to create programs for any commodity at the request of a group of producers. In early 1999, 12 federal promotion programs were fully operational: beef, cotton, dairy products, eggs, fluid milk, honey, mushrooms, popcorn, pork, potatoes, soybeans, and watermelon. In addition to the federally authorized programs, there are between 300 and 350 state-legislated promotion programs covering about 80 farm commodities. Nine out of ten U.S. farmers contribute to one or more of these efforts, which, collectively, raise and spend hundreds of millions of dollars annually.

Commodity Supplemental Food Program (CSFP) — The CSFP provides funding for monthly food packages consisting of **USDA** commodities (juice, egg mix, and canned fruits and vegetables), and administrative funding for local agencies serving low-income pregnant and postpartum women, infants, children up to age 6, and persons 60 years of age or older. The

precursor of the **WIC** program, the CSFP now operates in 81 project areas located in 20 states, and over one-half of the beneficiaries are elderly. CSFP is authorized through FY2002 under the **Agriculture and Consumer Protection Act of 1973**, as amended by the **FAIR Act of 1996**.

Common Agricultural Policy (CAP) — The set of legislation and practices jointly adopted by the nations of the European Union (EU) in order to provide a common, unified policy framework for agriculture. Its stated purposes are to increase farm productivity, stabilize markets, ensure a fair standard of living for farmers, guarantee regular supplies, and ensure reasonable prices for consumers. The CAP rests upon four basic principles: common import restrictions, common financing, common pricing, and common treatment of surpluses.

Common external tariff (CXT) — A tariff rate applied by a regional grouping of countries as a unit. For example, the European Community allows free trade in most agricultural commodities among member countries, but applies common external tariffs against many farm products imported from non-member or “third” countries.

Commonwealth of Independent States (CIS) — A formal association of states comprising the republics formed out of the former Soviet Union, with the exception of Estonia, Latvia and Lithuania. Included are Armenia, Azerbaijan, Belarus, Georgia, Kazakstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

Community Development Corporation (CDC) — Tax-exempt, non-profit organizations whose primary mission is the economic and social revitalization of distressed urban and rural areas. A CDC is a community-based organization carrying out its activities within a geographically defined area. CDCs may support or undertake such activities as housing development and rehabilitation, job training and counseling, and business development activities.

Community Facilities Program (CFP) — Administered by the **Rural Housing Service** of **USDA**, the CFP provides grants, loans, and loan guarantees to local governments, federally recognized native tribes, and nonprofit organizations. Funds are used to construct, expand, or rehabilitate such community facilities as hospitals, clinics, nursing homes, ambulatory care centers, police and fire stations, rescue and fire vehicles, communication centers, telecommunications, distant learning and telemedicine, child and adult care centers, jails, courthouses, airports, and schools.

Community food projects — A program administered by the **Cooperative State Research, Education and Extension Service** providing one-time matching grants to private non-profit entities to establish and carry out multi-purpose projects designed to increase **food security** on a local, community-based level. Project objectives are to meet the needs of low-income people by increasing their access to fresher, more nutritious food supplies; to increase the self-reliance of communities in providing for their own food needs; and to promote comprehensive responses to local food, farm, and nutrition issues. Congress has provided from \$1 million to \$2.5 million annually for the program in recent years, which **USDA** has used to make grants ranging from \$10,000 to \$250,000 each.

Comparative advantage — Refers to the economic theory that in international trade it is more advantageous for a country to devote its resources not to all lines of production in which it may have superiority (least cost production), but to those in which its relative superiority is greatest. Two countries may find trade mutually profitable even if one of the countries could produce all goods at lower cost than the other.

Competitive advantage — A situation in which one country, region, or producer can produce a particular commodity more cheaply than another country, region or producer.

Competitive bidding (for WIC) — With respect to the **WIC** program, refers to the method for containing program costs, particularly for infant formula contained in food packages; requires state WIC agencies to solicit bids to infant formula companies for the sale of their product. This is recommended but not required for other products sold through the program.

Competitive foods (in meal service) — Foods that may be regulated for sale in competition with the school lunch and breakfast programs under provisions of the **National School Lunch Act**.

Competitive imports — A term used by the **Economic Research Service** in its reporting of agricultural trade statistics to describe imports that are similar to and therefore competitive (in contrast to **non-competitive**) with those produced in the United States. Examples are beef, wheat, cotton, and sugar.

Composting — The controlled biological decomposition of organic material, such as sewage sludge, animal manures, or crop residues, in the presence of air to form a humus-like material. Controlled methods of composting include mechanical mixing and aerating, ventilating the materials by dropping them through a vertical series of aerated chambers, or placing the compost in piles out in the open air and mixing it or turning it periodically.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) — P.L. 99-499 (December 11, 1980) is commonly known as the **Superfund** law. It is the principal federal law for cleaning up hazardous waste sites to protect human health and the environment from releases of hazardous substances.

Con Act — **Consolidated Farm and Rural Development Act of 1961**.

Concentrated animal feeding operation (CAFO) — Generally, a facility where large numbers of farm animals are confined, fed, and raised, such as dairy and beef cattle feedlots, hog production facilities, and closed poultry houses. The **Environmental Protection Agency** has developed a specific regulatory definition of CAFO for the purposes of enforcing the **Clean Water Act**. The Act requires individual places that are potential sources of water pollution to obtain **point source** discharge permits that specify the allowable levels of effluent from each of these places. The regulations define “animal feeding operations” as those confining livestock or poultry for 45 days or more in a 12-month period in a facility that has no vegetative ground cover. Such places are further considered “concentrated,” and therefore required to have an EPA permit, if they reach certain size limits or meet other criteria specified in the EPA regulations. Those size limits are 700 mature dairy cattle, 1,000 beef cattle, 100,000 chickens, 55,000 turkeys, 2,500 swine, or 10,000 sheep.

Concentration (economic) — A measure of the degree to which a few large firms dominate total sales, production, or capacity within an industry or market. The concern is that the more concentrated an industry, the greater the likelihood of price and market manipulation. For example, meat packer concentration has long been a concern of cattle producers. It is common to express concentration as a ratio, by stating the share (%) held by the top 4, 8, or 12 firms.

Concessional (export) sale — A sale in which a foreign buyer is allowed loan payment terms that are more favorable than those obtainable in the commercial market. Under **P.L. 480**, the concessional provisions (compared to the commercial market) may include a lengthy credit period, a grace period before repayment begins, and a low interest.

Conditional registration — Under special circumstances, the **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)** permits **registration** of **pesticide** products that is “conditional” upon the submission of additional data. These special circumstances include a finding by the **Environmental Protection Agency** that a new product or use of an existing pesticide will not significantly increase the risk of unreasonable adverse effects. A product containing a new (previously unregistered) active ingredient may be conditionally registered only if the EPA finds that such conditional registration is in the public interest, that a reasonable time for conducting the additional studies has not elapsed, and the use of the pesticide for the period of conditional registration will not present an unreasonable risk.

Conjunctive use — Water management methods. Usually used to describe the practice of storing surface water in a groundwater basin in wet years and withdrawing it from the basin in dry years. Often used in discussing water supplies and water conservation.

Conservation — The management of human and natural resources to provide maximum benefits over a sustained period of time (see **sustainable agriculture**). In farming, conservation entails matching cropping patterns and the productive potential and physical limitations of agricultural lands to ensure long-term sustainability of profitable production. Conservation practices focus on conserving soil, water, energy, and biological resources. **Contour farming, no-till farming, and integrated pest management** are typical examples of conservation practices.

Conservation (cross) compliance — A provision originally authorized by the **Food Security Act of 1985** that requires farmers who operate on **highly erodible land** to manage this land under an approved conservation system in order to maintain eligibility in specified federal **farm programs**. The **FAIR Act of 1996** amended the conservation compliance provisions in several ways to provide greater planting flexibility to farmers.

Conservation districts (Soil and Water Conservation District) — A legal subdivision of a state government, with an elected governing body, which develops and implements soil and water conservation programs within a certain area, usually coinciding with county lines. The nearly 3,000 districts in the United States have varying names — soil conservation district, soil and water conservation district, natural resources district, **resource conservation district**, resources district, or conservation district.

Conservation easement — Acquisition of rights and interest to a property to protect identified conservation or resource values, using a reserved interest deed. Since the mid 1970s, conservation easements have been purchased to protect nearly 420,000 acres of farmland in fifteen states, primarily in the Northeast.

Conservation Farm Option Program — A provision of the **FAIR Act of 1996** authorizes a pilot program for producers who receive production flexibility payments to enter into a contract to consolidate payments at rates that are equivalent to payments that would otherwise be received from the **Conservation Reserve Program, Wetlands Reserve Program, and/or the Environmental Quality Incentives Program** in exchange for implementing practices to protect soil, water, and wildlife.

Conservation plan — A combination of land uses and farming practices to protect and improve soil productivity and water quality, and to prevent deterioration of natural resources on all or part of a farm. Plans may be prepared by staff working in **conservation districts** and must meet technical standards. For some purposes, such as **conservation compliance**, the plan must be approved by the local **conservation district**. Under the **1996 FAIR Act**, conservation plans for conservation compliance must be both technically and economically feasible.

Conservation practice — Any technique or measure used to protect soil and water resources for which standards and specifications for installation, operation, or maintenance have been developed. Practices approved by the **Natural Resources Conservation Service** are compiled at each **conservation district** in its **field office technical guide**.

Conservation Reserve Enhancement Program (CREP) — A sub program of the **Conservation Reserve Program**, CREP is a state-federal multi-year land retirement program developed by states and targeted to specific state and nationally significant water quality, soil erosion, and wildlife habitat problems. The CREP offers higher payments per acre to participants than the CRP, and perhaps other benefits as well. States with approved programs include Maryland, Minnesota, Illinois, New York, Oregon, Washington, and North Carolina.

Conservation Reserve Program (CRP) — A program, created in the **Food Security Act of 1985**, to retire from production up to 45 million acres of highly erodible and environmentally sensitive farmland. Landowners who sign contracts agree to keep retired lands in approved **conserving uses** for 10-15 years. In exchange, the landowner receives an annual rental payment, cost-share payments to establish permanent vegetative cover and technical assistance. The CRP reportedly has reduced **erosion** by up to 700 million tons per year. The **FAIR Act of 1996** extends authorization to enroll land through

2002 and caps maximum CRP acreage at 36.4 million acres, its 1995 level. The Act also makes the program spending mandatory and finances it through the **Commodity Credit Corporation**.

Conservation Technical Assistance (CTA) — CTA has been the central activity of the **Natural Resources Conservation Service** since it was established in 1936. NRCS field staff help landowners and farm operators plan and implement soil and water conservation and water quality practices. The most common use of this program in recent years has been preparing and updating **conservation compliance** plans. In FY1993, CTA assisted 1.2 million farmers and serviced 62 million acres.

Conservation tillage — Any tillage and planting system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage maintains a ground cover with less soil disturbance than traditional cultivation, thereby reducing soil loss and energy use while maintaining crop yields and quality. Conservation tillage techniques include **minimum tillage**, **mulch tillage**, **ridge tillage**, and **no-till**.

Conserving use acreage — Farmland diverted from crop production to an approved cultural practice that prevents **erosion** or other degradation. Though crops are not produced, conserving use is considered an agricultural use of the land.

Considered planted — Refers to a provision of the **Agricultural Act of 1949** that was used to implement the **base acreage** and yield system for the 1991-95 crops, a provision that was suspended by the **FAIR Act of 1996**. Under previous law, crop acreage bases were, in general, calculated as a 5-year average of planted and considered planted acreage. Acreage considered planted includes acreage idled under **production adjustment programs** or for weather-related reasons or natural disasters; acreage devoted to conservation purposes or planted to certain other allowed commodities; and acreage **USDA** determines is necessary for fair and equitable treatment.

Consolidated Farm and Rural Development Act of 1961 — P.L. 87-128 (August 8, 1961) authorized a major expansion of **USDA** lending activities, which at the time were administered by Farmers Home Administration (FmHA), but now through the **Farm Service Agency**. The legislation was originally enacted as the **Consolidated Farmers Home Administration Act of 1961**. In 1972, this title was changed to the **Consolidated Farm and Rural Development Act**, and is often referred to as the Con Act. The Con Act, as amended, currently serves as the authorizing statute for USDA's agricultural and rural development lending programs. Titles in the Act include current authority for the following three major FSA farm loan programs—farm ownership, farm operating and emergency disaster loans. Major amendments to the Con Act enacted in recent years that affect current USDA farm lending programs include the following: Title VI of the **Agricultural Credit Act of 1987** (P.L. 100-233, January 6, 1988) assists borrowers by requiring FSA to restructure or write down a delinquent loan if the government cost of restructuring is less than the cost of foreclosure. Title VI details the restructuring process and gives delinquent borrowers specific rights throughout the process. Title XVIII, Subtitle A of the **FACT Act of 1990** contained provisions designed to curb the perceived abuses of the borrower rights provisions of the 1987 Act. The 1990 farm bill allows FSA to consider the equity in non-essential assets in determining what portion of the loan can be written down and also gives FSA the authority to deny a borrower restructuring if these non-essential assets can be liquidated to make the borrower current on the delinquent loan. The **Agricultural Credit Improvement Act of 1992** (P.L. 102-554, October 28, 1992) established new USDA loan programs to assist beginning farmers and ranchers. The law established direct and guaranteed loan programs for beginning farmers and ranchers, and a program to provide 10-year loans for beginning farmers and ranchers to purchase their own farm or ranch in return for a down payment equivalent to 10% of the purchase price of the land. The law also limited the total number of years any borrower may participate in the agency's farm ownership and operating loan programs. Title VI of the **FAIR Act of 1996** directly affects eligibility for FSA loans and the servicing of its delinquent loans. It tightens the borrower rights provisions of the 1987 Act by, e.g., prohibiting any borrower who has had debt forgiven on a delinquent loan from receiving a new loan, and expedites the sale of farmland acquired by USDA through foreclosure or other forms of debt settlement.

Consumer-oriented agricultural products — One of three broad categories of agricultural products used by the **Foreign Agricultural Service** to report export and import data under its **BICO** system. (The others are **bulk commodities** and **intermediate agricultural products**. Consumer-oriented agricultural products are **high value products** that usually (but not always) are those ready, or easily made ready, for immediate use by consumers. Notable examples are snack foods, breakfast cereals, bakery mixes, eggs and products, dairy products, fresh or processed red meats and poultry, fresh or processed fruits, vegetables, nuts, pet foods, wine, and beer.

Consolidation — In agriculture and other economic sectors, consolidation usually is a reference to the trend from numerous smaller-sized operations toward fewer and larger ones. Consolidation can lead to higher **concentration**. See **industrialization**.

Consultative Group on International Agricultural Research (CGIAR) — An informal association of 56 public and private organizations that support 16 international agricultural research centers. All but three of the research centers are located in developing countries. The cosponsors of CGIAR are the **Food and Agriculture Organization of the United Nations**, the United Nations Development Programme, the United Nations Environment Programme, and the **World Bank** (where the CGIAR Secretariat is headquartered). CGIAR's mission is to promote sustainable agriculture in developing countries with the goal of creating food security, alleviating poverty, and preserving natural resources.

Consumer Price Index (CPI-U) — The Bureau of Labor Statistics' general measure of retail prices (for goods and services) paid by urban wage earners and clerical workers. Includes prices of about 400 items, including food, clothing, housing, medical care, and transportation. The CPI-U is commonly used to deflate time series data and is the most widely accepted measure of inflation.

Consumer subsidy equivalent (CSE) — A measure of the value of monetary transfers to consumers resulting from agricultural policies in a given year. If negative, it measures the implicit tax imposed on consumers by agricultural policies. The main component of the CSE is market transfers due to market **price support** to producers. The CSE can be measured in money terms, in money terms per unit of production, or in percentage terms. See **producer subsidy equivalent (PSE)**.

Consumptive water use — Water removed from available supplies without return to a water resources system, e.g., water used in manufacturing, agriculture, and food preparation. Crop consumptive water use is the amount of water transpired during plant growth plus what evaporated from the soil surface and foliage in the crop area.

Continuous inspection — **USDA's** meat and poultry inspection system is often called "continuous" because no animal destined for human food may be slaughtered or dressed unless an inspector is continuously present to examine each one before slaughter (**antemortem inspection**), and its carcass and parts after slaughter (**postmortem inspection**). In processing plants (as opposed to slaughter plants), inspectors need not be present at all times, but they do visit at least once daily. Thus, processing inspection is also considered to be continuous.

Contour farming — Field operations (such as plowing, planting, cultivating, and harvesting) at right angles to the natural slope to reduce soil **erosion**, protect soil fertility, and limit water runoff. Contour strip farming is a kind of contour farming in which row crops are planted in strips, between alternating strips of close-growing, erosion-resistant forage crops.

Contract — Written or oral agreement spelling out the parties' understanding of how a commodity is to be produced and/or marketed, including specifications for quantity, quality, and price. **Marketing contracts** are commonly used for crops, while **production contracts** are more prevalent in the livestock industry. Contracts contrast to cash markets. Cash markets continue to dominate the agriculture sector, accounting for almost 70% of farm commodity sales in 1997. However, contracting could likely continue to grow as a risk management tool for farmers and a coordination tool for processors.

Futures contracts provide a way to manage price risk that typically do not involve actual delivery of commodities.

Contract acreage — Enrolled 1996 commodity **base acreage** under the **FAIR Act of 1996** for wheat, feed grains, upland cotton, and rice (generally fixed for 1996 through 2002). A farmer may voluntarily choose to reduce contract acreage in subsequent years. Land leaving the CRP may be entered into a **production flexibility contract** if the land was previously commodity base acreage.

Contract commodity — The commodities previously eligible for **deficiency payments** and now eligible for **production flexibility contracts** under the **FAIR Act of 1996**: wheat, corn, sorghum, barley, oats, rice, and upland cotton.

Contract for future sale — A sales contract under which a farmer agrees to deliver products of specified quality and quantity to a buyer for a specified price within a prescribed time frame. Contract sales are a growing practice, recently accounting for 86% of poultry, more than 50% of fruits, and 43% of milk. The benefits to processors are greater uniformity and predictability resulting in lower costs of grading, processing, and packing. The benefits to farmers are more stable income from a guaranteed market and price, and possibly access to a wider range of production inputs and advanced technology.

Contract payments under AMTA — Some \$36 billion in payments to be made to farmers for **contract crops** for fiscal years 1996-2002 under Title I of the **FAIR Act of 1996**, known as the **Agricultural Market Transition Act (AMTA)**. The total amount made available for each fiscal year is specified in the Act and allocated to commodities each fiscal year using a set of percentages also specified in the Act. These percentages were based on the Congressional Budget Office's February 1995 baseline forecast of what **deficiency payments** would have been if provisions in effect for the 1995 crop had been extended. For example, for fiscal 1997, the total allocation for wheat is 26.26% of total annual payments of \$5.385 billion, or \$1.414 billion. The annual payment rate for wheat equals total spending (\$1.414 billion) divided by the sum of all individual wheat payment contract quantities for the year. As with other program commodities, an individual farm's **payment quantity** equals the farm's program payment yield multiplied by 85% of the farms wheat contract acreage. **Program yields** under the 1996 Act are determined in the same manner as under the 1949 Act for 1995 crops. An individual farmer's transition payment is the payment quantity times the annual **payment rate**. The payment is made by September 30 of each of the fiscal years 1996 through 2002. Producers may also choose to receive 50% of the contract payment in December or January of the fiscal year. Farmers have near total planting flexibility on the contract acres (the exception being fruits and vegetables) as well as on the remainder of the farm.

Contract production — A form of **vertical integration** where a firm commits to purchase a commodity from a producer at a price formula set in advance of the purchase.

Contract sanctity — The concept that U.S. agricultural products already contracted to be exported should not be subject to government cancellation because of short supply, national security, and/or foreign policy reasons. The **FACT Act of 1990** provides for contract sanctity by prohibiting the President from restricting the export of any agricultural commodity already under contract to be delivered within 270 days from the date the **embargo** is imposed, except during national emergency or war.

Conventional agriculture — Generally used to contrast common or traditional agricultural practices featuring heavy reliance on chemical and energy inputs typical of large-scale, mechanized farms to **alternative agriculture** or **sustainable agriculture** practices. Mold-board plowing to cover stubble, routine pesticide spraying, and use of synthetic fertilizers are examples of conventional practices that contrast to alternative practices such as **no-till**, **integrated pest management**, and use of animal and green manures.

Conventional tillage — Tillage operations considered standard for a specific location and crop and that tend to bury the crop residues; usually considered as a base for determining the cost effectiveness of **erosion** control practices. See **no-till farming**.

Converted wetland — Under the **swampbuster program**, these are **wetlands** that were drained or altered to improve agricultural production after December 23, 1985, the date swampbuster was enacted. On lands with this designation, no drainage maintenance and no additional drainage are allowed.

Conveyance loss — Water loss in pipes, channels, conduits, ditches by leakage or evaporation.

Cooperative — An enterprise or organization owned by and operated for the benefit of those using its services. In agriculture, such an organization is owned and used by farmers mainly to handle the off-farm part of their businesses — buying farm supplies, marketing their products, furnishing electric and telephone service, and providing business services — at cost. Essential features are democratic control, limited return on capital, and operation at cost, with distribution of financial benefits to individuals in proportion to their use of the services made available by the cooperative (called patronage refunds). In 1997, there were 3,884 farmer cooperatives in the United States. As a variation from the traditional design, so-called “new generation cooperatives” are characterized by limited membership, require substantial investment, and include delivery contracts. Producers are increasingly using this model to create their own **value-added** business enterprises. The **Rural Business-Cooperative Service** (RBS) assists in forming new cooperative businesses and improving the operations of existing cooperatives through technical assistance, research, information products. Cooperatives are afforded certain antitrust exemptions by the **Capper-Volstead Act**.

Cooperative Extension System — A federal-state-local cooperative education system that provides continuing adult education based on the academic programs of the **land grant colleges of agriculture** and their affiliated **state agricultural experiment stations**. The system employs approximately 32,000 people located on land grant campuses and offices in virtually every county in the nation. About half of Extension’s education programs focus on agriculture and natural resources, one-quarter on youth development (including the vocational 4-H program), and the balance on home economics and community resource development work.

Cooperative Research and Development Agreement (CRADA) — The Federal Technology Transfer Act of 1986 allows industry to enter into research contracts with government laboratories. In exchange for this cooperation, the company involved is entitled to first rights to obtain an exclusive license to any inventions that may emerge as a result of the CRADA. **USDA’s** in-house research agency, the **Agricultural Research Service** has developed more than 800 CRADAs with industry since the law was enacted.

Cooperative State Research, Education, and Extension Service (CSREES) — The **USDA** agency that administers federal funds appropriated for agricultural and forestry research, extension, and education programs at eligible institutions, including the **land grant colleges of agriculture** in the states, selected veterinary schools, and other institutions with capabilities in the food and agricultural science arena. The agency administers **formula funds** to the **1862 land grant colleges** under the **Hatch Act of 1887**, the **Smith-Lever Act of 1914** and the **McIntire-Stennis Act of 1962**; **Evans-Allen funds** for research programs at the **1890 land grant colleges**; the **National Research Initiative (NRI)** Competitive Grants program; the **Special Grants** program; grants for higher education; and the research portion of the **Fund for Rural America**.

Cooperator Program — Officially known as the **Foreign Market Development Program (FMDP)**. One of the agricultural export promotion programs operated by the **Foreign Agricultural Service**. This program consists of joint government/agri-industry efforts to develop markets by acquainting potential foreign customers with U.S. farm products. Activities under this program include providing technical assistance to prospective foreign buyers, overseas food exhibits, product demonstrations and advertising aimed at foreign consumers. FAS shares the financing of these projects with the “cooperators,” which are nonprofit commodity trade associations primarily composed of producer-based farm groups.

Coordinated review effort (CRE) — Food and Consumer Service reviews of the **National School Lunch Program** conducted in cooperation with state agencies to improve the management of the programs, evaluate meal data accuracy, and provide training and technical support to schools to help improve local program accountability.

Corn Belt — That area of the United States where corn is a principal cash crop, including Iowa, Indiana, most of Illinois, and parts of Kansas, Missouri, Nebraska, South Dakota, Minnesota, Ohio and Wisconsin.

Corn gluten — A byproduct of wet milling of corn. Corn gluten is used as a medium-protein (20-24%), medium-fiber (10%) feedstuff. The European Union is the major market for U.S. corn gluten feeds.

Corn/hog ratio — See **hog/corn ratio**, and **feed ratio**.

Corporate farm — A form of farm ownership which is a separate legal entity from the owners of the farm. Changes in the tax law in the 1970s encouraged the incorporation of farms as corporate tax rates declined while individual tax rates rose, mainly because of inflation. The 1992 Census of Agriculture reports that less than 4%, or nearly 73,000, of the 1.925 million farms in the nation were corporate farms. By contrast, more than 1.653 million (86%) were individual or family-owned operations and 186,000 (10%) were partnerships.

Cosmetic appearance — Section 1351 of the **FACT Act of 1990** defines the term as “the exterior appearance of an agricultural commodity, including changes to that appearance resulting from superficial damage or other alterations that do not significantly affect yield, taste, or nutritional value.” The Agricultural Marketing Service sets **grades and standards** for many agricultural commodities. Some consumer and environmental groups have argued that some of these standards are harmful because they encourage excessive pesticide use merely to make fruits and vegetables “attractive.” Agricultural interests disagree, countering that consumers prefer blemish-free produce and that cosmetic standards are no less important than other grading factors.

Cost/benefit analysis — A quantitative and sometimes qualitative evaluation of the costs which would be incurred by some action (such as building a dam, or implementing an environmental regulation) versus the overall benefits to society of the proposed action. See **risk-benefit analysis**.

Cost-containment (for WIC) — Refers to statutory provisions in the **Child Nutrition Act of 1966** that require state agencies to contain WIC program costs, particularly with respect to the cost of infant formula sold through the program. See **competitive bidding** and **sole source bids**.

Cost, insurance, and freight (C.I.F.) — In general, c.i.f. means that the seller’s price includes the cost of the goods, the marine insurance, and all transportation charges to the named point of destination. Similar terms include C.&F., cost and freight; C.F.I., cost, freight, and insurance; C.I.F. & C., cost, insurance, freight, and commission; C.I.F.C. & I., cost, insurance, freight, commission, and interest; and C.I.F.I. & E., cost, insurance, freight, interest, and exchange. C.A.F. is the French form of C.I.F.

Cost of production — The average unit cost (including purchased inputs and other expenses) of producing an agricultural commodity. The **Agricultural and Consumer Protection Act of 1973** requires **USDA** to make annual estimates of the average cost of producing selected commodities. These cost of production estimates have been used by Congress in considering farm policy options.

Cotton competitiveness provisions — Provisions added by the Food, Agriculture, Conservation, and Trade Act of 1990 to the cotton program designed to keep U.S. cotton price competitive in domestic and export markets. Sometimes referred to as the “three-step competitiveness” provisions. Step 1 is the discretionary authority for **USDA** to reduce the **adjusted world price** (used in the cotton **marketing assistance loan** program) when world prices are declining to near the adjusted world

price, but U.S. prices are higher than world prices. Though rarely used, the Step 1 adjustment is intended to make marketing loans more effective in keeping U.S. cotton globally competitive. **Step 2 payments**, sometimes referred to as the “user marketing certificate program,” are made to U.S. cotton users and exporters when U.S. prices are higher than world prices. Step 2 payments are intended to bridge price gap and keep U.S. cotton competitive. Step 3 mandates the opening of a “special import quota” when the differential between the higher U.S. price for cotton and the lower price for foreign cotton extends for a specified length of time. Its purpose is to allow imports to enter, acting to lower U.S. prices to bring them more in line with world prices. Step 3 quotas were in effect in April-May 1995, from late October 1995 through early May 1997, and were triggered in late February 1999. A step 3 quota cannot be established if a **limited global quota for upland cotton** is in effect, which operates differently and is triggered when other price conditions are met.

Cottonseed Oil Assistance Program (COAP) — Along with the **Sunflower Oil Assistance Program (SOAP)**, COAP was one of two programs under which bonuses were awarded to exporters to assist in exports of U.S. vegetable oil to targeted markets. Funds for the programs were authorized to be made available under **Section 32** of the **Agricultural Adjustment Act of 1935**. The provision in the **Disaster Assistance Act of 1988** that authorized the COAP to begin in fiscal year 1989 expired at the end of fiscal year 1995. However, the **USDA** appropriations act for FY1996 (P.L. 104-37, October 21, 1995) provided authority to operate the program in fiscal year 1996. COAP was not reauthorized by the **FAIR Act of 1996**, although **export subsidies** for cottonseed oil can be financed under the **Export Enhancement Program (EEP)**.

Countertrade — A trade transaction of goods and services without the exchange of money. Forms of countertrade include **barter**, buy-back or compensation, counter-purchase, offset requirements, swap, or triangular trade.

Countervailing duty — A charge levied on an imported article to offset the unfair price advantage it holds due to a subsidy paid to producers or exporters by the government of the exporting country. Section 303 of the **Tariff Act of 1930**, as amended, provides for an assessment equal to the amount of the subsidy, in addition to other duties and fees normally paid on the imported article. Countervailing duties are permitted under Article 6 of the **GATT**.

Country-of-origin labeling — Under Section 304 of the **Tariff Act of 1930**, as amended, most products entering the United States must be clearly marked so that the “ultimate purchaser” can identify the country of origin. Imported meat products are subject to this requirement: imported carcasses and parts of carcasses must be labeled, and individual retail (consumer-ready) packages also must be labeled. Imported carcasses or parts generally go to U.S. plants for further processing. The labeling policy considers these plants as the “ultimate purchasers.” Therefore, any products these plants make from the imported meat (for example, ground beef patties made in the United States from beef that originated in Canada or elsewhere) do not have to bear country-of-origin labels. A number of other agricultural articles are exempt from the basic country-of-origin labeling requirements: eggs, livestock and other animals, live or dead; and other “natural products” such as fruits, vegetables, nuts and berries. (However, the outermost containers used to bring these articles into the United States must indicate the country of origin.) There is an interest among U.S. farmers to require more extensive labeling of agricultural products (especially meats and produce). At issue are whether consumers would be more likely to buy the U.S. alternative if such labeling is more prevalent and whether foreign countries might view such a change as a **nontariff trade barrier**.

County committees — Panels of three to five farmers, elected by other farmers, to oversee the local operation of **commodity programs**, credit, and other programs of the **Farm Service Agency**. County committees, established by the **Soil Conservation and Domestic Allotment Act of 1935**, are so named because they have overseen **USDA** field offices for farmers that once existed in most rural farm counties throughout the United States. Today, the committees often oversee activities in multi-county areas, due to **USDA** reorganization and consolidation of its field office structure into a network of about 2,500 **field service centers**. The committees are responsible for hiring and supervising the **County Executive Director** (CED), who manages the day-to-day activities of the field service center and its employees. The director and most county office staff legally are employees of the farmer-elected committees rather than the federal government, although their salaries come from federal funds.

County Executive Director (CED) — The supervisor hired by the Farm Service Agency **county committee** to manage the day-to day activities of a **field service center** (formerly called the **county office**).

County loan rate — Nonrecourse loan rates vary from county to county to account for transportation cost differences to the nearest terminal elevator. The weighted average for all county loan rates — the actual loan levels received by farmers — in the United States must equal the national average loan rate, established by **USDA** according to limits set by Congress.

County office — Usually refers to the local office of the **Farm Service Agency**, where farmers go to conduct business associated with federal farm commodity and credit programs, and some conservation programs. As a result of reorganization in 1994, local offices are increasingly shared with other **USDA** agencies having local representatives, such as the **Natural Resources Conservation Service**. Offices shared by several agencies are called **field service centers**.

County payments — **Forest Service** payments of 25% of gross revenues from each national forest to the states for use on road and school programs in the counties where the national forests are located. Technically known as Payments to States, because the states determine which road and school programs can be funded, but the payments are allocated to the counties based on the national forest acreage in each county. Commonly confused with **Payments in lieu of taxes**.

Cover crop — A close-growing crop, planted primarily as a rotation between regularly planted crops, or between trees and vines in orchards and vineyards, to protect soil from erosion and improve it between periods of regular crops.

Cow-calf operator — A ranch or farm where cows are raised and bred mainly to produce calves usually destined for the beef market. The cows produce a calf crop each year, and the operation keeps some heifer calves from each calf crop for breeding herd replacements. The rest of the calf crop is sold between the ages of 6 and 12 months along with old or nonproductive cows and bulls. Such calves often are sold to producers who raise them as **feeder cattle**.

CP — Contracting party.

CPI — **Consumer Price Index**.

CRADA — **Cooperative Research and Development Agreement**.

CRBSC — Colorado River Basin Salinity Control Program.

CRC — Crop Revenue Coverage (see **revenue insurance**).

CRES — Conservation Reporting and Evaluation System.

Creutzfeldt-Jacob Disease (CJD) — A sporadic and rare, but fatal human disease that usually strikes people over 65. It occurs worldwide at an estimated annual rate of one case per million population. About 10-15% of CJD cases are inherited. A small number of cases occurred as the result of various medical treatments or procedures which inadvertently transferred the CJD agent. In March 1996, the British government announced a possible link between **bovine spongiform encephalopathy (BSE)** and CJD. The announcement was prompted by the discovery of several atypical cases of CJD in Great Britain.

Critical control point — An operation (practice, procedure, process, or location) at or by which preventive or control measures can be exercised that will eliminate, prevent, or minimize one or more hazards. Critical control points are fundamental to **Hazard Analysis and Critical Control Point (HACCP)** systems, which are now being adopted by the food industry to prevent health hazards in the food supply.

Critical habitat — Under the **Endangered Species Act**, critical habitat is an area essential to the conservation of a listed **species**, though the area need not actually be occupied by the species at the time it is designated. Critical habitat must be designated for all threatened and endangered species under the Act (with certain specified exceptions). The areas may be federal or nonfederal land, but only the federal government is required to protect it. A federal agency with whom a landowner is dealing must ensure that its actions (which may include giving a loan, increasing irrigation flows, etc.) do not adversely modify these areas.

Crop acreage base — A crop-specific measure equal to the average number of acres planted (or considered planted) to a particular **program crop** for the previous five years. The sum of the crop acreage bases for all program crops on a farm may not exceed the farm acreage. The acreage base was used in determining the number of acres a farmer, under an acreage reduction program, had to remove from normal crop production and devote to **conserving uses** in order to be eligible for **USDA** price and income supports. The **FAIR Act of 1996** suspends the **base acreage** provisions of the **permanent law**.

Crop insurance — Insurance that protects farmers from crop losses due to natural hazards. Hail and fire insurance are offered through private companies without federal subsidy. A subsidized multiperil federal insurance program, administered by the **Risk Management Agency**, also is available to most farmers. The program is authorized by the Federal Crop Insurance Act (which is actually title V of the **Agricultural Adjustment Act of 1938**), as amended. Federal crop insurance is available for about 60 different crops, although not all insurable crops are covered in every county. With the amendments to the Federal Crop Insurance Act made by the **Federal Crop Insurance Reform Act of 1994**, USDA is authorized to offer basically “free” **catastrophic (CAT)** coverage to producers who grow an insurable crop. Farmers must sign a waiver foregoing any federal disaster assistance if they decline CAT coverage. For an additional premium, farmers can buy additional coverage beyond the CAT level. Crops for which insurance is not available are protected under the **Noninsured Assistance Program (NAP)**. Federal crop insurance is sold and serviced through private insurance companies. A portion of the premium is subsidized by the federal government, as well as the administrative and operating expenses of the private companies. The **Federal Crop Insurance Corporation** reinsures the companies by absorbing the losses of the program when indemnities exceed total premiums. Several **revenue insurance** products are available on major crops as a form of additional coverage.

Crop reports — Reports compiled by the **National Agricultural Statistics Service (NASS)** on various commodities that are released throughout the year. Information in the reports includes estimates on planted acreage, yield, and expected production, as well as comparison of production from previous years.

Crop residue — That portion of a plant, such as a corn stalk, left in the field after harvest. Crop residues are measured for farmers who use **conservation tillage** to implement their **conservation plans** to meet **conservation compliance** requirements. These farmers are required to maintain a minimum level of crop residue to be in compliance. Under revisions to the conservation compliance program in the **FAIR Act of 1996**, farmers are allowed to use third parties, certified by **USDA**, to measure levels of crop residue.

Crop Revenue Coverage (CRC) — A form of **revenue insurance** that protects a producer’s revenue for an insurable crop whenever low prices, low yields, or a combination of both causes revenue to fall below a guaranteed level selected by the producer. It differs from other revenue insurance programs by allowing producers to use the higher of the planting price or the market price in determining a target level of revenue.

Crop rotation — The growing of different crops, in recurring succession, on the same land in contrast to **monoculture** cropping. Rotation usually is done to replenish soil fertility and to reduce pest populations in order to increase the potential for high levels of production in future years.

Crop scouting — Precise assessments of pest pressure (typically insects) and crop performance to evaluate economic risk from pest infestations and the potential effectiveness of pest control interventions. Scouting is usually sold as a commercial service to farmers.

Crop share rent — In contrast to cash rent, the tenant farmer pays the landlord a share of the crop. This arrangement puts the landlord, like the tenant operator, at risk from variation in yields and prices. For the farm operator, crop share rent is a mechanism for sharing risks with the landlord. In relation to **commodity programs** for supporting prices and farm incomes, cash rent landlords do not have a beneficial interest in the commodity and are not eligible for some benefits compared to crop share landlords that do have a beneficial interest in the crop.

Crop year — The year in which a crop is produced. This contrasts with the **marketing year**, which is the 12-month marketing period that begins with harvest.

Cropland — Land used primarily for the production of row crops, close-growing crops, and fruit and nut crops. It includes cultivated and noncultivated acreage, but not land enrolled in the **Conservation Reserve Program**. Approximately 382 million acres of cropland, including 50 million acres of irrigated land, was in use in the United States during the most recent **national resources inventory**, conducted in 1992. Cropland is 30% of all non-federal rural lands. In 1996, the value of production from cropland was about \$108 billion.

Cross compliance — A no longer used requirement that a farmer who participates in a **price support** program for one crop must also participate in price support programs for other crops grown on the same farm. See **conservation compliance**.

CRP — Conservation Reserve Program.

Crush spread — In the soybean futures market, the simultaneous purchase of soybean futures and the sale of soybean meal and soybean oil futures to establish a processing margin. See **gross processing margin**.

CSCE — Coffee, Sugar, and Cocoa Exchange.

CSE — Consumer subsidy equivalent.

CSFP — Commodity Supplemental Food Program.

CSPI — Center for Science in the Public Interest.

CSREES — Cooperative State Research, Education, and Extension Service.

CSRS — Cooperative State Research Service (see **Cooperative State Research, Education, and Extension Service**).

CU — Consumers' Union.

Cultural methods — Practices used to enhance crop and livestock health and prevent weed, pest or disease problems without the use of chemical substances; examples include the selection of appropriate varieties and planting sites; selection of appropriate breeds of livestock; providing livestock facilities designed to meet requirements of species or type of livestock; proper timing and density of plantings; irrigation; and extending a growing season by manipulating the microclimate with green houses, cold frames, or wind breaks.

Custom feeders — Producers who provide the service of feeding animals (e.g., cattle, hogs) they do not own, in return for a fee paid by someone else (such as a **packer**) who does own the animals. Custom feeding potentially provides packers with more control over supplies and prices of animals. Custom feeding is a form of **vertical integration**.

Customs union — An agreement between two or more countries to remove trade barriers between each other and to establish common tariff and nontariff policies with respect to other countries. The **European Community (EC)** of the **European Union (EU)** is the best know customs union.

CVD — Countervailing duty.

CVM — Center for Veterinary Medicine.

CWA — Clean Water Act (Federal Water Pollution Control Act).

CWB — Canadian Wheat Board.

cwt. — Hundredweight, or one hundred pounds.

CXT — Common external tariff.

CY — Crop year; calendar year.

CYFAR — Children, Youth and Families at Risk Program.

CZMA — Coastal Zone Management Act (see **Coastal Zone Management Program**).

Dacthal (DCPA) — A selective **herbicide**, trade name Dacthal, used especially on vegetables. DCPA and its breakdown products are environmentally significant and became the most commonly detected pesticide residues in an **Environmental Protection Agency** survey of drinking water wells conducted during 1988-1990.

Dairy and Tobacco Adjustment Act of 1983 — P.L. 98-180 (November 29, 1983) was designated the **Dairy and Tobacco Adjustment Act of 1983**. Title I authorized a voluntary **dairy diversion program**, which was operated between January 1984 and March 1985. Producers who elected to participate in the program and reduce their milk marketings by between 5 and 30% below their base production were paid \$10 per hundred pounds (cwt.) for these reductions. For a 16-month period (12/1/83- 3/31/85), all dairy farmers were assessed 50 cents per cwt. on all milk marketed to help defray the cost of the diversion program. The Act also authorized a national dairy **check-off program** for dairy product promotion, research and nutrition education. This self-help program is funded through a permanent 15-cent per cwt. **assessment** on all milk production, and is administered by a board of dairy farmers who are appointed by the Secretary of Agriculture. Title II was designated the **Tobacco Adjustment Act of 1983**. Title II provided for reduced levels of **price support** for tobacco, the prohibition of lease and transfer of flue-cured quota, the mandatory sale of allotments and quotas by nonfarming entities, the required inspection of imported tobacco, and various other modifications to the tobacco programs.

Dairy Diversion Program — A voluntary supply control program authorized by the **Dairy Production Stabilization Act of 1983**, under which producers in 1984-85 received payments, of \$10 per cwt., for reducing their milk marketings by between 5 to 30% below an earlier base period.

Dairy Export Incentive Program (DEIP) — A program that offers subsidies to exporters of U.S. dairy products to help them compete with other nations. **USDA** pays cash to exporters as bonuses to help them sell certain U.S. dairy products at prices below the exporter's cost of acquiring them. The program was originally authorized by the **Food Security Act of 1985** and extended by the **FACT Act of 1990** and the **Uruguay Round Agreements Act of 1994**. The total tonnage and dollar amounts of these and other **export subsidies** have been limited by the Uruguay Round's agreement on agriculture. The **FAIR Act of 1996** extends the program through 2002, and permits its use for market development in addition to offsetting the subsidies of other countries.

Dairy Market Loss Assistance Program (DMLA) — A program announced March 8, 1999, that makes direct payments to dairy farmers on the first 26,000 hundredweight of milk marketed during 1997 or 1998. The actual payment rate

will be determined after signup by dividing \$200 million by the total eligible milk. This program was authorized by the emergency provisions of the FY1999 **USDA** appropriations act (P.L. 105-277, October 21, 1998).

Dairy Price Support Program — The federal program that maintains a minimum farm price for milk used in the manufacture of dairy products. The CCC indirectly assures a minimum price for milk by purchasing any cheddar cheese, nonfat dry milk, and butter offered to it by dairy processors at stated prices. These purchase prices are set high enough to enable dairy processors to pay farmers at least the support price for the milk they use in manufacturing these products. The support price was \$10.20 per hundred pounds of milk (cwt.) in 1997, it declined to \$10.05/cwt in 1998, and \$9.90/cwt in 1999.

Under provisions of the **FAIR Act of 1996**, the dairy **price support** program is scheduled to terminate on December 31, 1999.

Dairy Promotion Program — The Dairy Production Stabilization Act of 1983 authorized a national producer program for dairy product promotion, research, and nutrition education as part of a comprehensive strategy to increase human consumption of milk and dairy products and to reduce dairy surpluses. Dairy farmers fund this self-help program through a mandatory 15-cent per hundredweight assessment on all milk produced in the 48 contiguous states and marketed commercially. Dairy farmers can direct up to 10 cents of this assessment for contributions to qualified regional, state or local dairy product promotion, research or nutrition education programs. The national program is administered by the National Dairy Promotion and Research Board (Dairy Board), a group of 36 dairy farmers appointed by the Secretary of Agriculture to staggered 3-year terms. This program should not be confused with the processor-funded **Fluid Milk Promotion Program**.

Dairy Termination Program — Also called the **whole herd buyout**, this program was authorized by the **Food Security Act of 1985**. Under it, farmers received **USDA** payments for agreeing to remove their entire dairy herds from production for 5 years.

Data call-in — A part of the **Environmental Protection Agency** Office of Pesticide Programs (OPP) process of developing key required test data, especially on the long-term, chronic effects of existing pesticides, in advance of scheduled Registration Standard reviews. Data call-in from manufacturers is an adjunct of the registration standards program intended to expedite **re-registration**.

DC — District Conservationist.

DDT — The abbreviated name of a **chlorinated hydrocarbon** insecticide, dichloro-diphenyl-trichloromethane. It is persistent in the environment and **biomagnifies** in birds of prey. The **Environmental Protection Agency** canceled U.S. registration of virtually all but emergency uses of DDT in 1972.

Dealer trust — The **Packers and Stockyards Act** includes provisions aimed at protecting the financial interests of livestock and poultry producers. Under the act, the inventories and accounts receivable of a packer or live poultry dealer — but not *livestock* (e.g., cattle, pigs, sheep) dealers such as auction houses — must be held in trust for unpaid cash sellers when the packer or poultry dealer fails to pay due to bankruptcy or other financial difficulty. In such situations, the seller is to be paid with these assets before other creditors. **USDA** for several years has been seeking an amendment to the act extending this protection to those who sell to livestock dealers, which, the Department says, have caused a significant amount of unrecoverable losses for livestock producers.

Debt-asset ratio — A financial ratio that measures the percentage of a farm operator's assets that are financed by debt. For example, a ratio of 0.4 means that for every \$100 of assets the operator has \$40 of debt. The ratio indicates to a lender the degree of security of a loan. Higher values indicate greater risk. Although a safe or acceptable level varies greatly by enterprise, a debt-asset ratio in excess of 0.4 may indicate financial stress. A ratio of 0 means that the operator owes no debt; a ratio greater than 1 means that the borrower's debts exceed the value of assets, indicating the insolvency of the farm business.

Decoupling — The concept of separating federal farm payments from the requirement that farmers produce specified **program crops** and/or divert land from production. A chief goal of decoupling is to remove a seemingly inherent contradiction in traditional policy: asking farmers to reduce production, while implicitly encouraging more output by tying their benefits to each unit produced. The decoupling concept was first introduced during debate over policy options in the 1985 omnibus **farm bill**, and was effectively implemented by policy changes made by the **FAIR Act of 1996**.

Deductions (food stamps) — When calculating a **household's** monthly food stamp benefit, food stamp rules require calculation of its **net income**, with lower net income amounts (larger deductions) producing higher food stamp benefits. This calculation is done by subtracting a series of dollar deductions from the household's total cash monthly income, so as to better reflect the amount of money the household has available for food spending. Food stamp deductions include: (1) a "standard deduction" (\$134 a month) that is subtracted for all recipients, (2) an earned income deduction (20% of any earnings) in recognition of taxes and work expenses, (3) a deduction for dependent care expenses related to work or training (up to certain limits), (4) a deduction for child support payments, (5) a deduction for medical expenses above \$35 a month (only available to elderly and disabled recipients), and (6) a deduction for excessively high shelter expenses (those above roughly one-third of a household's income, up to certain limits).

Deferred pricing — A **cash forward contract** that provides for determining price by formula at a later date. This also may be called "booking the **basis**," when the formula sets price relative to a futures price.

Deficiency payments — Direct government payments made to farmers who participated in an annual **commodity program** for wheat, feed grains, rice, or cotton, prior to 1996. The crop-specific deficiency payment rate was based on the difference between the legislatively set **target price** and the lower national average market price during a specified time. The total payment was equal to the **payment rate**, multiplied by a farm's eligible **payment acreage** and the program **payment yield** established for the particular farm. In the latter years of the program, farmers could receive up to one-half of their projected deficiency payments at program signup. If actual deficiency payments, which were determined after the crop year, were less than **advance deficiency payments**, the farmer was required to reimburse the government for the difference, except for **zero, 50/85-92 payments**. The **FAIR Act of 1996** eliminated deficiency payments and replaced them with **production flexibility contract** payments.

Defoliant — A chemical that removes leaves from trees and growing plants; regulated as a pesticide.

DEIP — Dairy Export Incentive Program.

Delaney Clause — The Delaney Clause in the **Federal Food, Drug, and Cosmetic Act (FFDCA)** states that no additive shall be deemed to be safe for human food if it is found to induce cancer in man or animals. It is an example of the **zero tolerance** concept in food safety policy. The Delaney prohibition appears in three separate parts of the FFDCA: Section 409 on food additives; Section 512, relating to animal drugs in meat and poultry; and Section 721 on color additives. The Section 409 prohibition applied to many pesticide residues until enactment of the **Food Quality Protection Act of 1996** (P.L. 104-170, August 3, 1996). This legislation removed pesticide residue tolerances from Delaney Clause constraints.

Delayed pricing — A type of deferred pricing that provides for transfer of title before the price is determined and final settlement made. Contracts including this feature are sometimes called "price-later" contracts.

Delivery — In settlement of a futures contract, the tender and receipt of the actual commodity, the cash value of the commodity, or of a delivery instrument covering the commodity (e.g., warehouse receipts or shipping certificates). Futures contracts may be settled by delivery, but more often they are settled by **offset** or cash. Each futures exchange has specific procedures for delivery of a commodity.

Delivery month — The specified month within which a **futures contract** matures and can be settled by **delivery**. Also referred to as contract month.

Delivery point — A location where a commodity can be delivered to fulfill a futures contract.

Demurrage — The charge that a shipper may be required to pay for detaining a rail car (or water carrier) longer than necessary to load it. What length of time is considered reasonable, and the level of demurrage charges, are frequently points of dispute between agricultural shippers and the railroads, particularly in proceedings before federal or state transportation regulatory bodies.

Dermal toxicity — The ability of a pesticide or other chemical to poison people or animals via skin contact. Many **organophosphate** pesticides exhibit high dermal toxicity.

Department of Agriculture (USDA) — USDA was originally established in 1862 and raised to cabinet status in 1889. In FY1997 it had an employment level equal to about 113,000 staff years, working in some 30 separate agencies, carrying out program activities valued at \$84 billion, with net federal budgetary outlays of \$57 billion. Forestry, natural resource, and farm activities utilized 58% of the staff time. However, about 70% of USDA expenditures went to domestic food assistance programs. Over 90% of the staff are located in local, state, and regional field offices away from the Washington, DC, headquarters. Approximately three-fourths of USDA spending is classified as mandatory spending, which by definition is not constrained by the annual appropriations process. Eligibility for mandatory programs is written into law; any individual or entity that meets the eligibility requirements is entitled to a payment as authorized by the law. The vast majority of mandatory spending is in the **Food Stamp Program** and certain other food and nutrition programs, the farm **commodity programs**, the **crop insurance** program, and the **Conservation Reserve Program**. The other roughly 25% of USDA budget is classified as discretionary and is subject to annual appropriations, including rural development, agricultural research and education, agricultural credit, international food aid, food marketing and inspection, forestry, and certain nutrition programs. All USDA discretionary programs are funded through an annual Agriculture, Rural Development, **Food and Drug Administration**, and Related Agencies Appropriations Act (except the **Forest Service** is funded through the **Department of Interior** appropriations act). Annual appropriations are made to the food stamp and other mandatory nutrition programs based on estimated spending needs. However, supplemental appropriations are generally made if and when these estimates fall short of required spending. An annual appropriation is made to the **Commodity Credit Corporation**, which funds the commodity programs and the Conservation Reserve Program, in order to cover its past net realized losses. Most, but not all, USDA programs are under the congressional authorizing jurisdiction of the House Committee on Agriculture and the Senate Committee on Agriculture, Nutrition, and Forestry.

Department of Agriculture Reorganization Act of 1994 — Title II of P.L. 103-354 (October 13, 1994) was designated the Department of Agriculture Reorganization Act of 1994 and gave the Secretary of Agriculture broad authority to reorganize **USDA** to achieve greater efficiency, effectiveness, and economy. The law called for consolidation of agencies and offices, as well as a reduction in personnel of 7,500 by the end of FY1999.

Department of the Interior (DOI) — This cabinet-level agency, also known as the Home Department, was created on March 3, 1849 by an Act of Congress to oversee and manage the vast national or **public domain**. Today the Department includes eight bureaus whose functions include managing National Parks and National Wildlife Refuges, collecting revenues from mineral resources, and operating programs developing, protecting, and enhancing resources on the Nation's **publiclands**.

DES — **Diethylstilbesterol**.

Desiccant — A chemical agent that absorbs moisture; desiccants can be used to control certain insect pests or mildew, and also to dry foliage before harvest (as with potatoes). Desiccants are regulated as **pesticides** under the **Federal Insecticide, Fungicide, and Rodenticide Act**.

Designated uses of water — Water uses identified in state water quality standards that must be achieved and maintained as required under the **Clean Water Act**. Uses can include cold water fisheries, public water supply, irrigation, etc.

Desired future condition — Used to describe the future condition of federal forests and **rangeland** resources that meet management objectives. Desired future condition is based on ecological, social, and economic considerations during the land and resource management planning process. Desired future condition is usually expressed as ecological status or management status of vegetation and desired soil qualities.

Desired plant community — The plant community that has been determined through a land use or management plan to best meet the plan's objectives for a site. A desired plant community is consistent with the site's capability to produce the required resource attributes through natural succession, management intervention, or a combination of both.

Developing countries — A country with a low per capita income. Terms such as less developed country, least developed country, underdeveloped country, poor, and southern have been used to describe developing countries. The **Agricultural Trade Development Assistance Act of 1954** (P.L. 480) defines developing country, for purposes of receiving U.S. food aid, as “a country that has a shortage of foreign exchange earnings and has difficulty meeting all of its food needs through commercial channels” [Section 402(4), 7. U.S.C. 1732]. Under the **Uruguay Round** Agreement on Agriculture, the World Trade Organization (WTO) accords longer periods of time to developing than to developed countries to phase in required reductions in **tariffs**, export subsidies, and trade-distorting domestic support. The WTO allows considerable latitude to countries to designate themselves as developing for purposes of phasing in WTO obligations. However, a country's status as developed or developing can become an issue if a country is applying for membership in the WTO. China, for example, a candidate for WTO membership, has argued that it should be considered a developing country and given longer periods of time to implement WTO rules and disciplines. The United States, the European Union, Japan, and other current WTO developed country members have argued that China is too important a presence in world agriculture to be admitted to the WTO as a developing country.

Development easement — A legal agreement by which a landowner surrenders the right to develop a designated parcel of property. Some local and state governments have programs to acquire development easements from private landowners to prevent conversion of farmland to other uses.

Dietary Guidelines for Americans — Dietary recommendations for healthy Americans age 2 and older about food choices that promote health, specifically with respect to prevention or delay of chronic diseases. These guidelines, which were first published in 1980, are issued every five years by **USDA** /HHS to reflect the latest nutrition knowledge. The guidelines will again be issued in 2000. Currently, there are seven messages that concern eating a variety of foods, balancing the foods eaten with physical activity, choosing plenty of grains, fruits and vegetables, choosing a diet low in fats, cholesterol, salt and sugar and limiting alcoholic beverages. The **food guide pyramid** is a practical consumer guide to using the dietary guidelines.

Dietary supplements — Defined by law as a vitamin, mineral, herb, botanical, an amino acid, a dietary substance added to supplement the diet to increase the total dietary intake, or concentrate, metabolite, constituent, extract or combination of any ingredients described above. Supplements cannot be represented for use as a conventional food or sole item of a meal or the diet; and they must be labeled as dietary supplements. Regulatory authority rests with the **Food and Drug Administration**. There are concerns about the degree of regulation by FDA for safety and claims made for the products by manufacturers.

Diethylstilbestrol (DES) — A synthetic estrogen hormone. DES was used widely in the United States as a growth promoter in cattle and sheep and as a treatment for estrogen-deficiency disorders in veterinary medicine, and for postcoital contraception. However, because of its carcinogenic properties and other adverse effects, the **Food and Drug Administration** has revoked all use of it in food-producing animals.

Differential assessment — Basing the valuation of farmland for property tax purposes on its use for farming rather than on its “highest and best” use, such as potential development. Types of differential assessment include preferential assessment, deferred taxation, and restrictive agreement.

Dioxin — Any of a group of toxic chlorinated compounds known chemically as dibenzo-p-dioxins (or the most toxic of these compounds, 2,3,7,8 tetrachloro dibenzo-p-dioxin). They are produced inadvertently as a by-product of chemical production or combustion and are widespread pollutants in the environment.

Direct export credit — See **GSM-5, Direct Export Credit Program**.

Direct marketing; farmer-to-consumer direct marketing — Any arrangement where the producer or his/her representative is selling his products directly to the end user. Typical forms of direct marketing are farmers’ markets and roadside stands. Other examples include **subscription farming** and regular delivery of fresh farm produce by farmers to homes or restaurants.

Direct payments — Payments (usually in cash but sometimes in commodity **certificates**) made directly to producers in conjunction with participation in commodity support or other programs. Under the **FAIR Act of 1996**, participating producers receive **production flexibility contract** payments, which replace **deficiency payments**. Also, producers receive direct payments under **conservation reserve** contracts.

Disaster payments — Direct federal payments provided to crop producers when either planting is prevented or crop yields are abnormally low because of adverse weather and related conditions. The **Federal Crop Insurance Act of 1980** greatly expanded **crop insurance** coverage in an attempt to permanently replace disaster payments with government-subsidized insurance. However, between 1988 and 1994, ad-hoc disaster legislation was enacted in each year that provided a total of nearly \$10 billion in direct disaster payments to farmers. These large payments prompted the enactment of the **Federal Crop Insurance Reform Act of 1994**, which included provisions to broaden the federal subsidy of the federal crop insurance program, in an effort to increase farmer participation in the program and lessen the pressure for ad-hoc disaster payments. The 1994 Act also created a permanent **noninsured assistance program (NAP)** that makes payments to farmers who grow a crop that is ineligible for crop insurance. NAP pays eligible farmers 60% of the market price of the crop on losses in excess of 50%, but only when the farmer’s area experiences a minimum crop loss of 35%.

Discharge — In water resources, the term refers to the flow of surface water in a stream or canal or the outflow of ground water from a flowing artisan well, ditch, or spring. In environmental protection, the term is used synonymously with effluent or emission as a term of **point source pollution** release.

Disease vectors — Plants or animals that harbor and carry disease organisms which may attack crops or livestock.

Dispute Settlement Body (DSB) — The General Council of the **World Trade Organization**, composed of all member countries, convenes as the Dispute Settlement Body to administer rules and procedures. It is responsible for adjudicating disputes arising under various multilateral trade agreements. The DSB has authority to establish panels, adopt panel and Appellate Body reports, maintain surveillance of implementation of rulings and recommendation, and authorize suspension of concession or other obligations under the various agreements.

Dissolved oxygen (DO) — The oxygen freely available in water, vital to fish and other aquatic life and necessary for the prevention of odors in water. DO levels are a critical indicator of a waterbody’s ability to support desirable aquatic life. Secondary and advanced wastewater treatments are generally designed to ensure adequate DO in waste-receiving waters by removing, digesting, or oxidizing oxygen-demanding wastes (see **biological oxygen demand**).

Distance Learning and Telemedicine Grant and Loan Program (DLT) — A program authorized by the **FACT Act of 1990** to provide grants to rural schools and health care providers to help them invest in telecommunications facilities and equipment to bring educational and medical resources to rural areas where the services otherwise might be unavailable. The **FAIR Act of 1996** reauthorized and streamlined the program. Funding is authorized at \$100 million annually. DLT is administered by the **Rural Utilities Service**.

Diversion payments — Payments once but no longer made to farmers who voluntarily reduced their planted acreage of a **program crop** and devoted the land to a **conservation use** when a **paid acreage diversion** was in effect. Also, payments made to dairy producers in the late 1980s under the no longer operating **dairy termination program** who agreed to reduce their milk marketings below a prescribed level.

DMLA — Dairy Market Loss Assistance Program.

DNA — Deoxyribonucleic acid.

DO — Dissolved oxygen

Dockage — A factor in the grading of grains and oilseeds; i.e., dockage in wheat is described as “weed seeds, weed stems, chaff, straw, or grain other than wheat, which can be readily removed from the wheat by the use of appropriate sieves and cleaning devices; also, underdeveloped, shriveled and small pieces of wheat kernels removed in properly separating, properly rescreening, or recleaning.” The term is also used to describe the amount of reduction in price taken because of a deficiency in quality.

Doctrine of prior appropriation — Water rights doctrine adopted by most western states, giving the first person to use water from a stream the first right to such water. If the first user does not consume all of the water, then the second and later users can appropriate water for their needs. The water right is not necessarily tied to land ownership.

DOI — Department of the Interior.

Domestic farm labor — Individuals (and the family) who receive a substantial portion of their income from the production or handling of agricultural or aquacultural products. Farm owners and others may be eligible for **Section 514 loans** to make housing available for domestic farm labor. For purposes of housing loans, the farm laborers must be U.S. citizens or legally admitted for permanent residence in the United States. The term includes retired or disabled persons who were domestic farm labor at the time of retiring or becoming disabled.

Domestic price — The price at which a commodity trades within a country, in contrast to the **world price**. For those commodities not benefitting from some form of **price support**, the domestic price is determined by supply and demand. For commodities that receive price support, the domestic price is usually set by the **loan rate** or some comparable support level that serves as a price floor in the marketplace working in conjunction with any **import quota** that may be in effect.

Double cropping — The practice of consecutively producing two crops of either like or unlike commodities on the same land within the same year. An example of double cropping might be to harvest a wheat crop by early summer and then plant corn or soybeans on that acreage for harvest in the fall. This practice is only possible in regions with long growing seasons.

Downer (or downed animals) — Commonly used term for animals that are disabled due to illness or injury. A longstanding issue is whether these animals are treated humanely or inhumanely by shippers, stockyards, and **packers** while they are being moved or held for slaughter. Legislation periodically introduced in Congress would outlaw the sale or transfer of such animals, but livestock producer groups (who generally agree that livestock markets should not accept severely disabled animals) contend that their voluntary efforts to end harmful practices have already proven successful.

DPSP — Dairy price support program.

Drainage — Improving the productivity of agricultural land by removing excess water from the soil by such means as ditches, **drainage wells**, or subsurface drainage tiles. See **swampbuster** and **wetlands**.

Drainage basin — The area of land that drains water, sediment, and dissolved materials to a common outlet at some point along a stream channel.

Drainage wells — Wells drilled to carry excess water off agricultural fields. Because they act as a funnel from the surface to the groundwater below, drainage wells can contribute to groundwater pollution.

DRES — Dietary risk evaluation system.

National Drought Policy Commission — P.L. 105-199 (July 16, 1998), the National Drought Policy Act, authorized creation of the Commission to conduct a study of current federal, state, local and tribal drought preparedness, and review laws and programs to determine if deficiencies exist in current relief policies and resources. The Commission's report to the President and Congress is due no later than January 16, 2000.

Dryland farming — A system of producing crops in semi-arid regions (usually with less than 20 inches of annual rainfall) without irrigation. Dryland farmers often try to rebuild soil moisture by leaving the land fallow (unplanted) or mulched in alternate years, called **summer fallowing**.

DSB — Dispute Settlement Body.

DTP — Dairy Termination Program.

Dumping — Selling commodities in a foreign market at a lower price than in the domestic market. Under **World Trade Organization** rules, dumping occurs when the price to the importer is less than the normal price of the product charged to the buyer in the country of origin. When considering the imposition of an **antidumping duty**, the U.S. government examines the imported price of a product compared to its **domestic price**. In addition, before duties are imposed, proof of injury to a U.S. industry must be demonstrated.

Durum wheat — A species of wheat distinct from wheat used to make bread and other bakery products. The hard, flinty kernels of durum wheat are specially ground and refined to obtain semolina, a granular product used in making pasta items such as macaroni and spaghetti. Most durum wheats are grown in Mediterranean countries, the former Soviet Union countries, North America, and Argentina. U.S. durum production is centered in North Dakota with other producing states being South Dakota, Minnesota, Montana, California, and Arizona.

Duty, import — A customs duty is a charge assessed by a government on an imported item at its point of customs entry into the country, and paid for by the importer; the term is now used interchangeably with **tariff**. In terms of assessing duties there are two basic types: an **ad valorem duty** is assessed in proportion to the value of the imported item, whereas a "specific" duty is assessed on the basis of a measure other than value, such as the quantity of the product imported. In addition, a "compound" or "mixed" duty, which is a combination of an ad valorem and specific duty, is occasionally used in the **Harmonized Tariff Schedules of the United States (HTSUS)**. Special duties such as **anti-dumping duties** or **countervailing duties** may also be levied on imports to offset the unfair price advantage of an imported article that is sold below normal value or subsidized by an exporting country.

***E. coli* 0157:H7 (*Escherichia Coli* 0157:H7)** — A bacterium that lives harmlessly in the intestines of animals such as cattle, reptiles, and birds. However, in humans the bacterium, which can be transmitted through foods, can cause bloody diarrhea, and also lead to hemolytic uremic syndrome (HUS), a life threatening disease. Although other known strains of *E. coli* are thought to be harmless to humans, the 0157:H7 strain is particularly virulent and dangerous. It has been implicated in several major outbreaks of food borne illness in recent years. After a 1993 outbreak in the West, caused by the consumption of undercooked hamburgers, resulted in hundreds of illnesses and several deaths, **USDA** began regularly testing samples of ground beef for the pathogen. USDA, as part of its new **hazard analysis and critical control point (HACCP)** rule, also now requires all meat and poultry slaughter plants to regularly test carcasses for generic *E. coli* (as opposed to the 0157:H7 strain) in order to verify that their sanitary systems are effectively controlling fecal contamination.

EA — Environmental Assessment.

Easement — A landowner sells or surrenders the right to develop a portion of the property, usually in return for a payment or some other benefit. Some local and state governments, and land trusts, have programs to acquire development easements from landowners to prevent conversion of farmland to other uses. Since the mid 1970s, **conservation easements** have been purchased to protect nearly 420,000 acres of farmland in 15 states, primarily in the Northeast.

EBT — Electronic benefit transfer.

EC — European Community.

ECARP — Environmental Conservation Acreage Reserve Program.

Economic Research Service (ERS) — **USDA's** in-house agricultural economics analysis and research agency. It employs about 600 people and has an annual budget of about \$53 million.

Economies of scale — See **economies of size**.

Economies of size — The concept that the average cost of production per unit declines as the size of the operation grows. One reason farms have been growing in size is to make more economical use of machines capable of covering more ground with less labor, to capture economies of size. Larger sized farms can typically get volume discounts on such inputs as chemicals and seed.

Ecosystem — A functioning community of nature that includes fauna and flora together with the chemical and physical environment with which they interact. Ecosystems vary greatly in size and characteristics; an ecosystem can be a mud puddle, a field or orchard, or a forest. An ecosystem provides a unit of biological study and can be a unit of management.

ECP — Emergency Conservation Program.

EDF — Environmental Defense Fund.

Edward R. Madigan U.S. Agricultural Export Excellence Award — An award established by the **FAIR Act of 1996** to recognize companies' and other entities' entrepreneurial efforts in the food and agricultural sector for advancing U.S. agricultural exports.

EEP — Export Enhancement Program.

EFAP — Emergency Food Assistance Program (formerly **TEFAP**).

EFAP — Emergency Feed Assistance Program (see **emergency livestock feed programs**).

Effluent — Waste, usually liquid, released or discharged to the environment. Generally the term refers to **point source** discharges of sewage or contaminated waste waters into surface waters.

Effluent limitation — An **Environmental Protection Agency** “standard of performance” reflecting the maximum degree of discharge reduction achievable by the best available technology for various categories of sources of water pollution. These categories include feedlots, grain mills, and several kinds of food processing.

EFNEP — **Expanded Food and Nutrition Education Program**.

EFPP — Emergency Feed Program (see **emergency livestock feed programs**).

EI — **Erosion index**.

EIA — Environmental impact assessment; economic impact assessment.

EID — Electronic identification devices.

EIP — **Export Incentive Program**.

EIR — Environmental impact report.

EIS — **Environmental impact statement**.

Elasticity — See **price elasticity of demand**.

Elderly and disabled — For food stamp purposes: “elderly” persons are age 60 or older; and “disabled” persons are beneficiaries of disability-based governmental assistance, such as social security disability payments and certain veterans disability payments.

Electronic benefit transfer (EBT) systems — Under an EBT system, recipients are issued an “ATM-like” card and a “personal identification number” (PIN) instead of food stamp coupons. They access their food stamp benefits when purchasing food by using the card at an approved retailer: “swiping” the card through a point-of-sale terminal and entering their PIN. This electronically debits a “food stamp account” maintained for them (and is replenished monthly) and credits the retailer with the purchase amount. States are permitted to issue food stamp benefits through EBT systems, and, unless a waiver is granted, must use EBT systems by 2002.

Elevator — A tall warehouse facility that uses vertical conveyors to raise or elevate grain, generally owned privately or by an agricultural cooperative, where grain is stored before being marketed. The term elevator often refers to any grain storage facility, even if the grain is not elevated. The country elevator is where a farmer delivers grain; a **terminal elevator** is a major transshipment facility; while an export elevator is at a port facility.

ELISA — Enzyme immunosorbant assay (test).

ELS — **Extra-long staple (cotton)**.

ELS cotton — The abbreviation for **extra-long staple cotton**.

EM — **Emergency disaster loans**.

EMAP — Environmental Monitoring and Assessment Program.

Embargo — A government-ordered prohibition or limitation on trade with another country. Under an embargo, all trade, or selected goods and services, may be restricted. The **Food Security Act of 1985** states that U.S. policy is: (1) to foster and encourage agricultural exports, (2) not to restrict or limit such exports except under the most compelling circumstances, (3) that any prohibition or limitation on such exports should be imposed only when the President declares a national emergency under the **Export Administration Act**, and (4) that contracts to export agricultural commodities and products agreed upon before any prohibition or limitation should not be abrogated. Whenever commercial export sales of an agricultural commodity are suspended for reasons of short supply, but to a country with which the United States continues commercial trade, the **Food and Agriculture Act of 1977** requires **USDA** to set the commodity **price support** loan rate at 90% of the **parity price**. The Food, Agriculture, Conservation, and Trade Act of 1990 contains **contract sanctity** provisions that place constraints on the embargo of agricultural commodities from the United States. The 1990 Act also: (1) provides for agricultural embargo protection that, if certain conditions are met, compensates producers with payments if the President suspends or restricts exports of a commodity for national security or foreign policy reasons, and (2) requires **USDA** to develop plans to alleviate the adverse effects of embargoes if imposed. The **FAIR Act of 1996** requires **USDA** to compensate producers of a commodity, or commodities, if the U.S. government imposes an export embargo on any country for national security or foreign policy reasons, and if no other country joins the U.S. embargo within 90 days. Compensation may take the form of payments to producers or funds made available to promote agricultural exports or food aid.

Emergency Conservation Program — A program administered by the **Farm Service Agency** to help farmers to rehabilitate farmland damaged by natural disasters by sharing in the cost of rehabilitation.

Emergency Disaster (EM) Loan Program — When a county has been declared a disaster area by either the President or the Secretary of Agriculture, farmers in that county may become eligible for low-interest emergency disaster (EM) loans available through the **Farm Service Agency** (formerly Farmers Home Administration). EM loan funds may be used to help producers recover from production losses (when the producer suffers a significant loss of an annual crop) or from physical losses (such as repairing or replacing damaged or destroyed structures or equipment, or for the replanting of permanent crops such as orchards). A qualified producer can then borrow up to 80% of the actual production loss or \$500,000, whichever is less, at a subsidized interest rate.

Emergency feeding agency — This refers to an organization serving the food needs of the poor and unemployed that is designated by a state as eligible for commodities and administrative support to distribute commodities or operate a meal service program under the **Emergency Food Assistance Program**.

Emergency Food Assistance Act of 1983 — P.L. 98-92 (September 2, 1983) amended the original **Temporary Emergency Food Assistance Act (TEFAA) of 1983** to authorize multi-year funding and commodity donations from excess CCC inventories of foodstuffs for food distribution by emergency feeding organizations serving the needy and homeless. It subsequently was amended in 1985, 1988, 1990, and 1996 (under the **FAIR Act of 1996**) and currently authorizes funding through FY2002 to buy and donate commodities and to provide grants for state and local costs of transporting, storing, and distributing them to emergency feeding organizations, soup kitchens, and food banks serving low-income persons. In addition to discretionary funds authorized to be appropriated by this law, the welfare reform law of 1996 required that \$100 million of food stamp appropriations be used annually to buy commodities for emergency feeding organizations.

Emergency Food Assistance and Soup Kitchen-Food Bank Program (EFAP-Soup kitchens) — This program provides **USDA** commodities to **emergency feeding organizations** to help with the food needs of low-income populations. It also authorizes grants to states to help with the state and local costs of transporting, storing, and distributing the commodities. In addition to authorizing funding to buy commodities for these programs, the program also requires that \$100 million of food stamp funds be used annually for that purpose. The program is authorized through FY2002 by the **Emergency Food Assistance Act of 1983**, as amended by the **FAIR Act of 1996**. Eligible agencies include food banks, food pantries,

soup kitchens, and public and private charitable agencies serving the poor. States determine the agencies eligible to participate and set low-income standards for eligibility.

Emergency livestock feed programs— The **USDA** was given permanent authority by the **Disaster Assistance Act of 1988** to implement an array of emergency livestock feed programs. These programs were designed to assist livestock producers who lose a significant amount of feed grown on the farm due to a natural disaster. The primary livestock feed programs implemented by USDA were: (1) the Emergency Feed Assistance Program (EFAP), which provided farmers who experienced a large loss of feed production with government-owned grain at a subsidized price, and, (2) the Emergency Feed Program (EFP), a cost-share program for farmers affected by a disaster who purchased their needed feed in the marketplace. To meet mandated budget savings requirements, the **FAIR Act of 1996** suspended these programs from the law through 2002.

Emergency Wetlands Reserve Program (EWRP) — Authorized in 1993 under emergency supplemental appropriations to respond to widespread floods in the Midwest, EWRP provided payments to purchase easements and partial financial assistance to landowners who permanently restored wetlands at sites where the restoration costs exceeded the land's fair market value. EWRP was administered by Natural Resources Conservation Service as part of its Emergency Watershed Program and operated in seven midwestern states. Land in this program is considered to be a part of the land enrolled in the **Wetland Reserve Program**.

Emerging Markets Program — A program originally authorized by the **FACT Act of 1990**, and titled the Emerging Democracies Program. The program was authorized to promote U.S. agricultural exports by providing technical assistance and credits or credit guarantees to emerging democracies annually for fiscal years 1991-95. Funds could be used to establish or provide facilities, services, or U.S. products to improve handling, marketing, storage, or distribution of imported agricultural products. The program initially focused on central and eastern Europe and the former Soviet Union. The **FAIR Act of 1996** reauthorized the program through 2002 and renamed it the Emerging Markets Program. The program is retargeted to emerging markets (defined as countries that **USDA** determines have the potential to provide viable and significant markets for U.S. agricultural products). The law authorizes \$10 million per year and the Commodity Credit Corporation must make available not less than \$1 billion of direct credit or credit guarantees to emerging markets for fiscal years 1996-2002, in addition to the amounts authorized for **GSM-102/103**.

Emission — Waste released or emitted to the environment. The term is commonly used in referring to discharges of gases and particles to the atmosphere, i.e., air pollutants, and also is used in referring to particles or energy released radioactively. Sometimes the term is used broadly, encompassing any pollutant discharge.

EMU — **European Monetary Unit**.

End-use certificate — The **North American Free Trade Agreement Implementation Act** mandates end-use requirements for wheat and barley imported from any country requiring end-use certificates for imports of U.S. produced commodities. Canada is the only nation that requires such certificates, and U.S. wheat is the only commodity subject to the restriction. Regulations implementing the End-Use Certificate Program, implemented February 27, 1995, are found at 7 **CFR** 782.

Endangered species — **Species** of animals or plants likely to go extinct in the foreseeable future unless current trends are altered. They are listed by regulation under the **Endangered Species Act** and assigned the Act's highest level of protection. Only scientific factors may be taken into account in deciding whether to list a species as endangered, though economic factors may be taken into account at other stages of the Act. See also **threatened species**. For the legal definition, see Section 3 of the Act.

Endangered Species Act (ESA) of 1973 — P.L. 93-205 (December 28, 1973), as amended, is one of the major federal laws protecting **species** and the ecosystems on which they depend. While states generally have primacy in wildlife law, this is one of a handful of areas in which federal law plays the major role. ESA is administered primarily by the **Fish and Wildlife Service** (and by the National Marine Fisheries Service (NMFS) for certain marine species). Under authority of this Act, species of plants and animals at risk of extinction are listed as either “endangered” or “threatened” according to the degree of risk. Once a species is listed, powerful legal tools are available to aid the recovery of the species and to protect its habitat. Over 1000 species of domestic animals and plants have been listed as either endangered or threatened. The ESA has been controversial for two main reasons: First, its standards of protection are substantive, rather than procedural, occasionally preventing activities that would lead to the taking of an endangered or threatened species or jeopardizing its continued existence. Thus, the protection of endangered salmon may result in limitations on logging around spawning habitat. Even if a given activity is rarely prohibited outright, mandatory changes or modifications of practices are not infrequent. Second, because other laws often lack the strict substantive provisions that Congress included in the ESA regarding taking of species, critical habitat, and avoidance of jeopardy, the ESA often becomes a battleground by default over larger controversies concerning resource scarcities and altered ecosystems. Like the miners’ canaries, endangered species have flagged controversies over the Tellico Dam (hydropower development versus farmland protection and tribal graves, as well as the snail darter); northwest timber harvest (protection of logging jobs and communities versus commercial and sport fishing, recreation, and ecosystem protection, as well as salmon and spotted owls); and the Edwards Aquifer (allocation of water among various users with differing short- and long-term interests, with a few spring-dependent species caught in the cross-fire). Farmers, ranchers, and loggers can be affected by ESA in various ways, depending on the particular listed species, the locale, the nature and health of the ecosystem, the ownership of the land, etc. On federal land, ESA may require land managers to restrict or modify resource uses to protect listed species; on private land, ESA prohibits **takings** and requires agencies providing any Federal service—such as permitting, increasing irrigation flows, or loans—to ensure the action will not adversely affect critical habitat.

Endocrine disruptor — A chemical agent that interferes with natural hormones in the body. Hormones are secreted by endocrine glands (such as the pituitary, thyroid, pancreas, ovary, and testis), are transported through the body in the bloodstream, and regulate body growth and metabolism, other endocrine organs, and reproductive functions. There is emerging concern that endocrine disruptors may be causing human health or ecological effects, such as abnormal thyroid function, decreased fertility, and alteration of immune and behavioral function. This concern arises from demonstrated instances (an example is the ability of **diethylstilbestrol (DES)** to disrupt female reproductive function throughout the lifespan in laboratory animals and humans) and the fact that hormones are biologically active at very low concentrations (at parts per billion or less), so low levels of disruptors may similarly be biologically active. In amendments to the **Safe Drink Water Act** and the **Federal Insecticide, Fungicide, and Rodenticide Act in 1996**, Congress directed the **Environmental Protection Agency** to study endocrine disruptors. The outcome of this research will be of consequence to agriculture because some pesticides and animal growth stimulants have been hypothesized to act as endocrine disruptors.

Environment — The totality of the surrounding external conditions—biological, chemical, and physical—within which an organism, community, or object exists. The term is not exclusive in that organisms can be and usually are part of another organism’s environment. Thus one can speak of the environment as that within which humankind lives, i.e., separate and external; or, one can speak of humankind as a component of the environment.

Environmental Assessment — Under implementing regulations of the **National Environmental Policy Act of 1970**, a document used by agencies to determine whether the environmental effects are sufficient to require an EIS.

Environmental Conservation Acreage Reserve Program (ECARP) — An umbrella program authorized by the **FACT Act of 1990** that includes the **Conservation Reserve Program**, and the **Wetland Reserve Program**. The **FAIR Act of 1996** continues the CRP and WRP and creates the **Environmental Quality Incentives Program**. The goal of the ECARP is to provide long-term protection of environmentally sensitive land. Contracts, easements, and cost-share payments are used to assist landowners and operators of farms and ranches to conserve and enhance soil, water, and related natural resources, including grazing land, wetland, and wildlife habitat.

Environmental equity/ justice — Equal protection from environmental hazards for individuals, groups, or communities regardless of race, ethnicity, or economic status. This applies to the development, implementation, and enforcement of environmental laws, regulations, and policies, and implies that no population of people should be forced to shoulder a disproportionate share of adverse impacts of pollution.

Environmental impact statement (EIS) — A document required of federal agencies by the **National Environmental Policy Act** for major projects or administration-initiated legislative proposals significantly affecting the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and assesses alternative actions.

Environmental Protection Agency (EPA) — An independent federal government agency established in 1970 and charged with coordinating effective governmental action concerning the environment, including setting standards, promulgating and enforcing regulations, and initiating and implementing environmental programs. Two areas of jurisdiction that most directly affect agricultural production are the registration of **pesticides** and implementation of the Clean Water Act.

Environmental Quality Incentives Program (EQIP) — A program created by the **FAIR Act of 1996** to provide primarily cost-sharing assistance, but also technical and educational assistance, aimed at reducing soil, water, and related natural resource problems. The program replaces the **Agricultural Conservation Program**, the **Water Quality Incentives Program**, the **Great Plains Conservation Program**, and the **Colorado River Basin Salinity Control Program**. EQIP is authorized at \$1.3 billion in mandatory spending over 7 years (total), with at least half of the funding targeted to environmental concerns associated with livestock production; spending in general is to be targeted to state-designated **priority areas**. EQIP is to be operated to maximize the environmental benefits per dollar expended.

EPA — Environmental Protection Agency.

Epidemiology — Study of the distribution of disease, or other health-related conditions and events in human or animal populations, in order to identify health problems and possible causes.

EQIP — Environmental Quality Incentives Program.

Equivalence — A term applied by the **Uruguay Round** Agreement on the Application of **Sanitary and Phytosanitary (SPS) Measures**. WTO Member countries shall accord acceptance to the SPS measures of other countries (even if those measures differ from their own or from those used by other Member countries trading in the same product) if the exporting country demonstrates to the importing country that its measures achieve the importer's appropriate level of sanitary and phytosanitary protection.

Erosion — The wearing away of the land surface. Unconsolidated materials, such as soil, erode more rapidly than consolidated materials, such as rock. The most common causes of erosion are wind and moving water. The susceptibility of soil to erosion is quantified by the erosion index. Water causes **sheet, rill, and gully erosion**.

Erosion (erodibility) index (EI) — The erosion (sometimes called erodibility) index is created by dividing potential **erosion** (from all sources except gully erosion) by the **T value**, which is the rate of soil erosion above which long term productivity may be adversely affected. The erodibility index is used in the **conservation compliance** and **Conservation Reserve Programs**. For example, one of the eligibility requirements for the CRP is that land have an EI greater than 8.

ERS — Economic Research Service.

ESA — Endangered Species Act.

ESA — Environmentally sensitive area.

Estuary — Regions of interaction between rivers and near-shore ocean waters, where tidal action and river flow mix fresh and salt water. Such areas include bays, mouths of rivers, salt marshes, and lagoons. These brackish water ecosystems shelter and feed marine life, birds, and wildlife. Estuaries typically include adjoining **wetlands**.

Ethanol — C_2H_5OH ; the **alcohol** product of carbohydrate fermentation used in alcoholic beverages and for industrial purposes (also known as ethyl alcohol or grain alcohol). It is blended with gasoline to make **gasohol**. In the 1998/99 corn **marketing year**, about 540 million bushels (5.5% of the corn crop and 7.2% of domestic use) will be used to produce about 1.5 billion gallons of ethanol.

EU — **European Union**.

EUP — **Experimental use permit**.

Euro — The single currency of the 11 countries that are members of the **European Monetary Union**, one of the institutions of the **European Union**. This new currency went into effect on January 1, 1999. The participating countries are Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Spain, and Portugal. The exchange rates for the currencies of these 11 countries were irrevocably fixed in terms of the euro on December 31, 1998. Although the euro is now the official currency, the transition will occur in two phases. For financial transactions, the euro replaced national currencies on January 1, 1999, but for notes and coins, it will replace national currencies in 2002. Four **EU** members did not join the launch of the euro in January 1999: Denmark, Greece, Sweden, and the United Kingdom.

European Community (EC) — A regional organization created by the Treaty of Rome (1957), which provided for the gradual elimination of customs duties and other interregional trade barriers, a common external tariff, and gradual adoption of other integrating measures, including the **Common Agricultural Policy (CAP)**, and guarantees of free movement of labor and capital. Of the current 15 member countries, the original six were Belgium, France, West German, Luxembourg, and the Netherlands. Membership expanded to include Denmark, Ireland, and the United Kingdom in 1973; Greece in 1981; Spain and Portugal in 1986; and Austria, Finland, and Sweden in 1995. In 1993, with establishment of the **European Union (EU)**, the EC became the customs union component of the EU.

European Monetary Union (EMU) — As agreed in the Maastricht Treaty, 11 European Union members began participating in the EMU on January 1, 1999. The 11 countries are Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. The other four countries — the United Kingdom, Denmark, Sweden, and Greece — either chose not to participate at this time, or did not meet the economic criteria. Under the EMU, the 11 countries have a common central bank (the European Central Bank), and thus a common monetary policy, similar to that of the U.S. Federal Reserve System, and a single currency, called the **euro**.

European Union (EU) — Since 1993, the term used to describe the **European Community** and related institutions. The entry into force of the Maastricht Treaty of European Union on November 1, 1993, introduced this change in terminology regarding the EC and many of its institutions.

Eutrophication — The process by which a body of water acquires a high concentration of plant nutrients, especially nitrates or phosphates. This nutrification promotes algae growth that, when it dies, can lead to the depletion of **dissolved oxygen**, killing fish and other aquatic organisms. While eutrophication is a natural, slow-aging process for a body of water, human activities can greatly accelerate the process.

Evans-Allen funds — Federal funds distributed to the **1890 land grant colleges of agriculture** under a provision in the **National Agricultural Research, Extension, and Teaching Policy Act of 1977**, to support research programs. The

provision became known by the names of two of its primary proponents in Congress, Representative Frank Evans of Colorado and Representative James Allen of Alabama.

Evapotranspiration — The loss of water from the soil both by evaporation and by transpiration from the plants growing in the soil.

EWG — Environmental Working Group.

EWP — Emergency Watershed Protection Program.

Excess land limitation — Irrigable land, other than exempt land, owned by any landowner in excess of the maximum **acreage limitation** (ownership entitlement) under the applicable provision of **reclamation law**.

Exotic species — A **species** that is not native to a region.

Expanded Food and Nutrition Education Program (EFNEP) — EFNEP is a program of the **Cooperative Extension System** that operates in all 50 states and U.S. territories. Started in 1965, its purpose is to provide low-income individuals, particularly youth and families with young children, with the knowledge, skills, and desire to adopt and maintain a nutritious diet.

Experimental use permit — A permit under the **Federal Insecticide, Fungicide, and Rodenticide Act** that authorizes the testing of new pesticides or uses thereof in experimental field studies on 10 acres or more of land or one acre or more of water. Such tests provide data to support **registration** of pesticides.

Export Administration Act (EAA) of 1979 — P.L. 96-72 (September 29, 1979) provides legal authority to the President to control U.S. exports for reasons of national security, foreign policy, and/or short supply. However, the **FACT Act of 1990** (P.L. 101-624) provides for **contract sanctity** by prohibiting the President from restricting the export of any agricultural commodity already under contract for delivery within 270 days from the date the **embargo** is imposed, except during national emergency or war. With the expiration of EAA in 1994, the President declared a national emergency and exercised authority under the **International Emergency Economic Powers Act** to continue the EAA export control regulations then in effect by issuing Executive Order 12924 on August 19, 1994, last extended by the Presidential Notice of August 13, 1998.

Export allocations or quotas — Controls applied to exports by an exporting country to limit the amount of goods leaving that country. Such controls usually are applied in time of war or during some other emergency requiring conservation of domestic supplies, as well as to advance foreign policy and national security objectives of the exporting country. The European Union, in 1996, used a licensing system to allocate and restrict exports of wheat because of short supplies and high prices.

Export Credit Guarantee Programs (GSM-102/103) — The Commodity Credit Corporation finances export credit guarantee programs for commercial financing of U.S. agricultural exports. The programs finance the sale of exports to buyers in countries where credit is needed but where financing may not be available without CCC guarantees. Two programs back up credit extended by private banks in the United States (or in some instances by the U.S. exporter) to approved foreign banks using dollar-denominated letters of credit to pay for food and agricultural products sold to foreign buyers. The Export Credit Guarantee Program (**GSM-102**) guarantees credit terms up to 3 years. The Intermediate Export Credit Guarantee Program (**GSM-103**) guarantees longer term credits up to 10 years. Under these programs, the CCC does not provide financing, but guarantees payments due from foreign banks. Typically, 98% of principal and a portion of interest at an adjustable rate is covered. Because repayment is guaranteed, U.S. financial institutions can offer credit on competitive terms to foreign banks, usually with interest rates based on the **London Inter-Bank Offered Rate (LIBOR)**.

Export credit revolving fund — The Agriculture and Food Act of 1981 authorized a revolving loan fund that would provide short-term and intermediate-term direct credit for export sales of agricultural commodities, breeding animals, and handling facilities in developing markets. Once capitalized, loans would be made from the initial fund and repayments of principal and

interest would return to the fund to be revolved as new loans. Money was never appropriated to capitalize the revolving fund and its statutory authority was eliminated in the **FACT Act of 1990**.

Export Enhancement Program (EEP) — A program that **USDA** initiated in May 1985 under the **CCC Charter Act** to help U.S. exporters meet competitors' subsidized prices in targeted markets. The program was later authorized by the **Food Security Act of 1985**; the **FACT Act of 1990**; the **Uruguay Round Agreements Act**; and the **FAIR Act of 1996**. Under the EEP, exporters are awarded cash payments, which enable an exporter to sell certain commodities to specified countries at competitive prices. The **FAIR Act of 1996** caps EEP program levels annually through 2002 and allows **USDA**, under certain conditions, to target up to \$100 million annually for the sale of intermediate-value products.

Export Incentive Program (EIP) — A federal export promotion effort operated by the **Foreign Agricultural Service**. Assistance is provided to private firms to help them promote brand name food items in overseas markets. EIP is administered as part of the **Market Access Program**.

Export licenses — A government document authorizing the export of specific goods in specific quantities to a particular destination. Licenses may be required to export to some countries for most or all goods, and for other countries only under special circumstances. The Office of Export Administration in the Department of Commerce administers the export licensing system under the authority of the **Export Administration Act**.

Export PIK — A program used in the 1980s that made **payment-in-kind** to U.S. exporters as export subsidies for surplus commodities.

Export subsidy — A direct or indirect compensation provided by government to private commercial firms to promote exports of domestic products. Article 16 of the GATT considers that export subsidies are unfair competition and allows **countervailing duties** to be imposed on subsidized products. Indirect methods of export subsidization include government subsidized financing for exports, export promotion and information activities, tax benefits, or other forms of assistance that may lead to lower than normal costs for exported products. The **Uruguay Round** Agreement on Agriculture imposes limits on agricultural export subsidies.

Exposure assessment — Identifying the pathways by which toxicants may reach individuals, estimating how much of a chemical various individuals are likely to be exposed to, and estimating the number likely to be exposed at each level.

Extension Service — Refers to a nationwide continuing education system that is based on the academic programs of the **land grant colleges of agriculture** (see **Cooperative Extension System**). The term also is the former name of the **USDA** agency that distributed federal funds to the states under the **Smith-Lever Act of 1914** to carry out Extension programs. The 1994 **USDA** reorganization merged this agency with the Cooperative State Research Service (CSRS) to form the **Cooperative State Research, Education, and Extension Service**.

Extra-long staple (ELS) cotton — Also called American Pima, this cotton has a staple length of 1-3/8" or more, is characterized by fineness and high fiber strength, and is used in high-value products such as sewing thread and expensive apparel. It is grown chiefly in west Texas, New Mexico and Arizona. ELS cotton and **upland cotton** are both eligible for nonrecourse loans. However, ELS cotton is not eligible for **marketing loan** repayment provisions or **loan deficiency payments**.

Extra-Long Staple Cotton Act of 1983 — P.L. 98-88 (August 26, 1983) eliminated marketing quotas and allotments for **extra-long staple cotton** and tied its support to upland cotton through a formula that set the **nonrecourse loan** rate at not less than 150% of the **upland cotton** loan level.

FAC — Food Aid Convention, see **International Grains Agreement (IGA)**.

F.O.B — Free on board.

Free on board (F.O.B. or f.o.b.) — Indicates that the seller assumes all responsibilities and costs up to the specific point or stage of delivery named including transportation, packing, insuring, etc. A wide variety of f.o.b. terms is used, such as f.o.b. factor Detroit, f.o.b. cars New York, f.o.b. ship Norfolk. “Free on board vessel,” under most P.L. 480 grain contracts, means delivery at the discharge end of the loading spout.

FAC — Food and Agriculture Council; Food Aid Convention.**FACA — Federal Advisory Committee Act.**

FACT — Food Animal Concerns Trust.

FACT Act of 1990 — Food, Agriculture, Conservation, and Trade Act of 1990; the omnibus 1990 **farm bill**.

Failed acreage — Tracts of properly-planted and managed crops that did not grow or were destroyed due to a natural disaster. Failed acreage is eligible for indemnification if covered by the federal **crop insurance** program.

FAIR Act of 1996 — Federal Agriculture Improvement and Reform Act of 1996; the 1996 omnibus **farm bill**.

Fair information practices — A set of standards developed in the early 1970s to describe how information should be used and protected; usually stated as eight principles in this country and including openness, individual access, collection limitations, data quality, use limits, disclosure limits, security, and accountability. The agriculture community is starting to consider whether it needs such a set of standards, and whether this set is the best model.

Fair market value (FMV) — The amount in cash, or on terms reasonably equivalent to cash, for which in all probability something might be sold by a knowledgeable owner to a knowledgeable purchaser. Several federal statutes state that the federal government should receive fair market value when exchanging or selling federal lands and resources.

Fallow cropland — Cropland left idle during the growing season, sometimes called **summer fallow**. It may be tilled or sprayed to control weeds and conserve moisture in the soil. The amount of cultivated summer fallow has ranged between 22 and 32 million acres over the past 10 years, or 7 to 10% of the cropland used for crops.

FAMC — Federal Agricultural Mortgage Corporation (**Farmer Mac**).

Family farm — As defined by **USDA** regulations, a farm that (1) produces agricultural commodities for sale in such quantities so as to be recognized in the community as a farm and not a rural residence; (2) produces enough income (including off-farm employment) to pay family and farm operating expenses, pay debts, and maintain the property; (3) is managed by the operator; (4) has a substantial amount of labor provided by the operator and the operator’s family; and (5) may use seasonal labor during peak periods and a reasonable amount of full-time hired labor.

FAO — **Food and Agriculture Organization** of the United Nations.

FAPRI — Food and Agricultural Policy Research Institute.

Farm — As defined for purposes of the Census of Agriculture since 1978, a farm is any place that has, or has the potential to produce, \$1,000 or more in annual gross sales of farm products. According to the 1992 Census of Agriculture, there are about 1.925 million farms in the United States. This number includes all **farm sizes** and ownership structures, including **corporate farms**, partnerships, and **family farms**.

FARM — Farm Animal Reform Movement.

Farm acreage base — The total of the crop **acreage bases** (wheat, feed grains, cotton, and rice) for a farm for a year, the average acreage planted to soybeans and other non-**program crops**, and the average acreage devoted to conserving uses (excluding **Acreage Reduction Program** land). The **FAIR Act of 1996** eliminated the need to calculate a farm acreage base.

Farm and risk management (FARRM) accounts — A proposal that would permit farmers and ranchers to put aside money in good (higher-income) years without having to pay taxes on the savings until it is withdrawn at a later time, presumably in lower-income years when taxable income also would be lower. Bills to create these accounts have been introduced in Congress in recent years.

Farm bill — A phrase that refers to a multi-year, multi-commodity federal support law. It usually amends some and suspends many provisions of **permanent law**, reauthorizes, amends, or repeals provisions of preceding temporary agricultural acts, and puts forth new policy provisions for a limited time into the future. Beginning in 1973, farm bills have included titles on **commodity programs**, trade, rural development, farm credit, conservation, agricultural research, food and nutrition programs, marketing, etc. These are referred to as omnibus farm bills. The following is a generally agreed chronological list of farm bills: (1) Food and Agriculture Act of 1965, P.L. 89-321; (2) **Agricultural Act of 1970**, P.L. 91-524; (3) **Agriculture and Consumer Protection Act of 1973**, P.L. 93-86; (4) **Food and Agriculture Act of 1977**, P.L. 95-113; (5) Agriculture and Food Act of 1981, P.L. 97-98; (6) **Food Security Act of 1985**, P.L. 99-198; (7) **Food, Agriculture, Conservation, and Trade Act of 1990**, P.L. 101-624; (8) **Federal Agriculture Improvement and Reform Act of 1996**, P.L. 104-127.

Farm Credit Act of 1971 — P.L. 92-181 (December 10, 1971) recodified all previous acts governing the **Farm Credit System (FCS, or System)**, a cooperatively owned government sponsored enterprise that provides credit primarily to farmers and ranchers. The Act eliminated earlier provisions relating to government capitalization of the System, and expanded the lending authorities of many System institutions. The Act, as amended, currently serves as the authorizing statute for the Farm Credit System. Major legislation that has modified the 1971 Act in recent years include: **Agricultural Credit Act of 1987** (P.L. 100-233, January 6, 1988) authorized up to \$4 billion in federal financial assistance to FCS institutions to assist in their recovery from the agricultural credit crisis of the 1980s. The Act created a System entity to issue up to \$4 billion in federally guaranteed bonds, required the U.S. Treasury to pay a portion of the interest on these bonds, and also required the FCS to ultimately repay the Treasury for this assistance. The Act also mandated the merger of certain System banks within each farm credit district and expanded other merger authorities, and gave delinquent FCS borrowers certain rights. A separate System institution was established by the Act to insure the timely repayment of principal and interest on consolidated Systemwide debt issues. **Farm Credit Banks and Associations Safety and Soundness Act of 1992** (P.L. 102-552, October 28, 1992) was designed to enhance the financial safety and soundness of FCS banks and associations by establishing new mechanisms to ensure repayment of Farm Credit System debt resulting from federal financial assistance provided to the System under the 1987 Act. The **Farm Credit System Reform Act of 1996** (P.L. 104-105, February 10, 1996) includes numerous provisions that provide regulatory relief for the FCS.

Farm Credit Administration (FCA) — The independent federal regulator responsible for examining and insuring the safety and soundness of all **Farm Credit System** institutions. The FCA is governed by a 3-member, Presidentially-appointed board of directors, one of whom serves as chairman.

Farm Credit Banks — Institutions within the **Farm Credit System (FCS)** that make direct long-term agricultural loans secured by farm real estate through **Federal Land Bank Associations**. They provide wholesale loan funds to direct FCS lending associations — **Production Credit Associations, Federal Land Credit Associations**, and Agricultural Credit Associations.

Farm Credit System (FCS) — A network of cooperatively owned lending institutions and related service organizations serving all 50 states and the Commonwealth of Puerto Rico. The FCS specializes in providing farm real estate and rural homeowner loans, operating credit, and related services to farmers, ranchers, and producers or harvesters of aquatic products. The FCS may also finance the processing and marketing activities of these borrowers, certain farm-related businesses, and agricultural, aquatic, and public utility cooperatives. It is chartered under authorities in the **Farm Credit Act of 1971**, as amended, but does not receive any direct government funding. The System provides about one-fourth of the total credit used by U.S. farmers, ranchers, and cooperatives. Historically, the FCS consisted of a **Federal Land Bank (FLB)**, a Federal Intermediate Credit Bank (FICB) and a **Bank for Cooperatives (BC)** in each of the 12 districts across the nation. Within each district, **Federal Land Bank Associations (FLBA)** and **Production Credit Associations (PCA)** served as local lenders for the FCS providing farm real estate and operating credit, respectively. A severe financial crisis led to the enactment of the **Agricultural Credit Act of 1987**, which provided federal financial assistance to weak institutions in the FCS, but required the FCS to streamline its operations as a condition for assistance. As a result, each district was required to merge its FLB and FICB to form a **Farm Credit Bank (FCB)**. For FLBAs and PCAs that share a similar geographical territory, stockholders were given the option of merging institutions to form an Agricultural Credit Association (ACA). The Central Bank for Cooperatives and 10 of the 12 BCs also agreed to a merger forming a **National Bank for Cooperatives (CoBank)**.

Farm Credit System Assistance Board — A temporary board created by the **Agricultural Credit Act of 1987** and responsible for approving **Farm Credit System** lender requests for federal financial assistance. Members of the Board consisted of the Secretary of Agriculture, Secretary of Treasury (or their appointees), and an agricultural producer with financial experience.

Farm Credit System Insurance Corporation (FCSIC) — An entity of the **Farm Credit System (FCS)**, established by law in 1987, to insure the timely repayment of principal and interest on FCS debt securities.

Farm equity — The net worth of the farm sector's assets (i.e., farmland, machinery, equipment, facilities, crop and livestock inventories) against which there is no debt. This represents all farm proprietors' residual claims to farm assets. Increases in farm equity in the late 1970s became increasingly important for most agricultural producers as a source of additional collateral against which to obtain credit for operating and expansion purposes. The level of farm equity ranges widely from one farm to another. The overall **debt-asset ratio** is a measure of the farm sectors financial condition.

Farm income — Several measures are used to gauge the earnings of a farming operation over a given period of time: **Gross cash income** is the sum of all receipts from the sale of crops, livestock, and farm related goods and services as well as all forms of direct payments from the government. **Gross farm income** is the same as gross cash income with the addition of nonmoney income, such as the value of home consumption of self-produced food and the imputed gross rental value of farm dwellings. **Net cash income** is gross cash income less all cash expenses such as for feed, seed, fertilizer, property taxes, interest on debt, wages to hired labor, contract labor and rent to nonoperator landlords. **Net farm income** is gross farm income less cash expenses and noncash expenses, such as capital consumption, perquisites to hired labor, and farm household expenses. Net farm income is a longer term measure of the ability of the farm to survive as a viable income-earning business, while net cash income is a shorter term measure of cash flow.

Farm income and balance sheet — The income statement measures the profitability of a farm business for a particular period of time, usually one year. The balance sheet measures the wealth or financial position of the business at a particular point in time by reporting the farm's assets, debt, and net worth. The **Economic Research Service** publishes the income statement and balance sheet of the Nation's farm sector, and the farm sector financial statement each state.

Farm inputs — The resources that are used in farm production, such as chemicals, equipment, feed, seed, and energy. Most farm inputs are purchased (a change from the days when animals powered most operations), making production costs susceptible to nonfarm economic conditions. Over time, prices of farm inputs have increased relative to commodity prices,

creating what farmers describe as a cost-price squeeze. The relationship between prices paid for inputs compared to prices received for output is quantified in the **parity ratio**.

Farm loan programs of the FSA — Loan programs, administered by the **Farm Service Agency** (replacing **FmHA**), providing both direct and guaranteed real estate, operating loans, and direct emergency disaster loans to individuals whose primary business is farming and ranching. Loans are targeted to **family farms** whose operators are unable to obtain sufficient credit from private commercial lenders on reasonable terms. Under the **FAIR Act of 1996**, farm lending programs are permanently reauthorized, with new restrictions on the purposes for which loans can be used and on the length of time borrowers are eligible for new credit assistance. Provisions are extended that reserve a portion of loan funds for new and beginning farmers.

Farm labor housing grants — **Section 516 grants** are available through the **Rural Housing Service** to qualified nonprofit organizations to providing housing to farm workers.

Farm labor housing loans — **Section 514 loans** are available through the **Rural Housing Service** to qualified farm owners for the purpose of providing housing to **domestic farm labor**.

Farm Operating (OL) Loans — Subtitle B of the **Consolidated Farm and Rural Development Act**, as amended, authorizes the **Farm Service Agency** (formerly **FmHA**) to make direct and guaranteed farm operating loans. Applicants must be family-sized farmers, who are denied credit by private and cooperative sources, and have reasonable prospects for success in the farm operation. Operating loans are made to farmers to help them pay their operating expenses for such productions costs as feed, seed, fertilizer, and pesticides, and to meet other essential operating expenses. The loan limit is \$200,000 for a direct loan and \$400,000 for a guaranteed loan, and the scheduled repayment is usually over 1 to 7 years depending on loan purposes. The interest rate on direct loans is determined by the Farm Service Agency and does not exceed the federal cost of borrowing plus 1 percentage point. However, loans to “limited resource” borrowers can be made at significantly below market rates. The interest rate on guaranteed loans is negotiated between the borrower and the lender. **USDA** guarantees the timely repayment of 90% of principal and interest on guaranteed loans, and in some cases can subsidize the interest rate on these loans. The amount **USDA** can directly lend or guarantee each year is determined in the annual congressional appropriations process.

Farm operator — A person who operates a farm, either by doing or supervising the work or by making the day-to-day management decisions. Nationally, farm operators own about 57% of their land and lease or rent the remainder.

Farm ownership (FO) loans — Subtitle A of the **Consolidated Farm and Rural Development Act**, as amended, authorizes the **Farm Service Agency** (formerly **FmHA**) to make direct and guaranteed farm ownership loans to eligible family farmers. One of the functions of the FO loan program is to assist farmers, especially beginning farmers, in the purchase and enlargement of farms. An eligible borrower must be unable to obtain sufficient credit from a commercial lender, but must assure reasonable prospects of success in the farm operation. Loans are made for up to 40 years and cannot exceed \$200,000 for a direct loan, or \$300,000 for a guaranteed loan. The interest rate for a direct loan is determined by **USDA**, and cannot exceed the cost of funds to the Government plus 1 percentage point. However, direct loans to “limited resource” borrowers can be made at significantly below the federal cost of funds. The interest rate on guaranteed loans is negotiated between the borrower and the lender. **USDA** guarantees the timely repayment of 90% of principal and interest on guaranteed loans, and in some cases can subsidize the interest rate on these loans. The amount **USDA** can directly lend or guarantee each year is determined in the annual congressional appropriations process.

Farm price — The price that farmers receive for the commodities they market. Sometimes the term farm-gate price is used to emphasize that the price does not include transportation or processing costs.

Farm programs — This term is generally meant to include the **commodity programs** administered by the **Farm Service Agency**, as well as the other **USDA** programs that directly benefit farmers. Some examples of the other programs include **farm loans**, federal **crop insurance**, the **noninsured assistance program** (NAP), the **Conservation Reserve Program** (CRP), and conservation cost sharing.

Farm Service Agency (FSA) — One result of the 1994 legislative reorganization of **USDA** was the consolidation of the **ASCS**, **FCIC** and **FmHA** into a single agency, the FSA. This agency is responsible for administering farm income-support programs, conservation cost-sharing programs, **noninsured crop assistance** (NAP), and the former FmHA **farm loan programs**. FSA services are provided through **field service centers** located throughout the agricultural areas of the nation.

Farm size — Although a standard definition is not available, the most common way to measure farm size is by the value of gross farm sales. **USDA** defines small farms as those having less than \$50,000 in sales annually, representing 73% of the 2.1 million farms counted in 1992. It considers the remaining 27% of all farms (with sales of \$50,000 or more) to be commercial farms. Although the 558,000 commercial farms counted in 1992 were a relatively small portion of all farms, they accounted for 88% of gross farm sales.

Farm to retail price spread — The difference between the **farm price** and the retail price of food, reflecting charges for processing, shipping, and retailing farm goods. The current spread accounts for about three-fourths of the retail price for a **market basket** of foods, according to **USDA**. The farm value accounts for about 51% of the retail cost of eggs, compared to 19% for processed fruits and vegetables.

Farmed wetlands — Under the **swampbuster program**, these are **wetlands** that were partially drained or altered to improve crop production before swampbuster was enacted as part of the December 23, 1985, farm law. Farmed wetlands may be farmed as they were before the 1985 date, and the drainage that was in place before that date can be maintained, but no additional drainage is allowed.

Farmer Mac (Federal Agricultural Mortgage Corporation) — Created by the **Agricultural Credit Act of 1987** as a federally chartered, private corporation responsible for guaranteeing the timely repayment of principal and interest to investors in a new agricultural secondary market. The secondary market allows a lending institution to sell a qualified farm real estate loan to an agricultural mortgage marketing facility, or pooler, which packages these loans, and sells to investors securities that are backed by, or represent interests in, the pooled loans. Farmer Mac guarantees the timely repayment of principal and interest on these securities and, under authorities granted in 1995, can also serve as a loan pooler.

Farmer-Owned Grain Reserve (FOR) — A program, established under the **Food and Agriculture Act of 1977**, designed to buffer sharp price movements and to provide reserves against production shortfalls by allowing wheat and feed grain farmers to participate in a subsidized grain storage program. Farmers who placed their grain in storage received an extended nonrecourse loan for at least 3 years. Under certain conditions, interest on the loan could be waived and farmers could receive annual storage payments from the government. The **FAIR Act of 1996** repealed this program.

Farmers Home Administration (FmHA) — Formerly an agency of **USDA** that provided direct and guaranteed credit to family-sized farmers who were denied credit by a commercial lender. The 1994 **USDA** reorganization transferred FmHA's **farm loan programs** to the newly formed **Farm Service Agency**.

Farmers Market Nutrition Program — Authorized through FY2003 under Section 17 of the **Child Nutrition Act of 1966**, this program provides funding for grants to selected states that develop programs promoting the use of farmers markets by **WIC** recipients.

Farmland — Land used for agricultural purposes. The federal government recognizes **prime farmland** and **unique farmland** as the most important categories. According to **USDA**, the United States has had roughly 1 billion acres of farmland. Farmland consists of **cropland**, **pastureland**, and grazing land.

Farmland protection — Programs, operated mostly at state and local levels by government agencies or private entities such as land trusts, that are designed to limit conversion of agricultural land to other uses that otherwise might have been more financially attractive to the landowner. Every state has at least one such program; the most popular programs are tax relief through preferential or differential assessment, and right-to-farm laws. **Easements** are used in some states.

Farmland Protection Program (FPP) — A program established by the **FAIR Act of 1996** to fund the purchase of conservation easements of 170,000-340,000 acres of land having prime or unique soil or other desirable production qualities that are threatened by urban development. Eligibility depends upon already having a pending offer from a state or local government to protect qualifying land by limiting nonagricultural use. **USDA** is authorized to use up to \$35 million of funds from the CCC. During the first year of operation, USDA awarded almost \$15 million to 18 states to protect an estimated 50,000 acres of farmland.

FARRM — Farm and risk management accounts.

Farrow-to-finish— Typically, a confinement operation where pigs are bred and raised to their slaughter weight, usually 200-250 pounds. Facilities that have 2,500 or more swine are considered by the **Environmental Protection Agency** to be a **concentrated animal feeding operation (CAFO)** subject to **point source pollution** permit requirements.

FAS — Foreign Agricultural Service.

FASEB — Federation of American Societies for Experimental Biologies.

FASFAS — Federation of American Societies of Food Animal Sciences.

Fast track authority — A legislative procedure that may be adopted by Congress for considering bills to implement trade agreements. The procedure calls for consultation between the President and Congress as trade agreements are negotiated. Once an implementing bill is introduced, it may not be amended, time for debate is limited, and the bill is subject to an up or down vote. Many agricultural interests support fast track legislation on the grounds that it will facilitate negotiations for enhancing trade and hence possible export markets for farm products.

Fat free lean index — One of several measures of hog quality (in this case, leanness) that can be used in determining value. The index was developed by the National Pork Producers Council, an industry trade group.

FB — Farm Bureau (American Farm Bureau Federation).

FCA — Farm Credit Administration.

FCB — Farm Credit Bank.

FCC — Farm Credit Council.

FCIC — Federal Crop Insurance Corporation.

FCS — Farm Credit System

FCS — Food and Consumer Service.

FCSIC — Farm Credit System Insurance Corporation.

FDA — Food and Drug Administration.

FDI — Food Distributors International.

FDPIR — Food Distribution Program on Indian Reservations.

Fecal coliform bacteria — Bacteria found in the intestinal tracts of mammals. Their presence in water or sludge is an indicator of pollution and possible contamination by pathogens.

Fed cattle — Animals leaving a **feedlot**, after fattening on a high protein ration, that are ready to be sold to a **packing plant** for slaughter. Beef cattle are typically sold to packers at about 1,100 pounds, which yields a **carcass weight** of about 660 pounds.

Federal Agricultural Mortgage Corporation — An organization more commonly referred to as **Farmer Mac**, which is a secondary (resale) market for agricultural mortgages. Farmer Mac was authorized by the **Agricultural Credit Act of 1987**.

Federal Agriculture Improvement and Reform Act of 1996 (FAIR) — P.L. 104-127 (April 4, 1996) was the omnibus 1996 **farm bill** that removed the link between **income support** payments and farm prices. It authorized 7-year production flexibility **contract payments** that provide participating producers with fixed government payments independent of current farm prices and production. The law specified the total amount of money to be made available through contract payments under **production flexibility contracts** for each fiscal year from 1996 through 2002. Payment levels were allocated among **contract commodities** according to specified percentages, generally derived from each commodity's share of projected deficiency payments for fiscal 1996-2002. The law increased planting flexibility by allowing participants to plant 100% of their total **contract acreage** to any crop, except with limitations on fruits and vegetables. The authority for **acreage reduction programs** was eliminated, while **nonrecourse loans** (with **marketing loan repayment provisions**) were continued in a modified form. Minimum loan rates generally were calculated each year at 85% of recent past market prices. Authority for the **Farmer-Owned Reserve Program** was suspended through the 2002 crop year. Authority for the honey program was eliminated. Dairy price supports were phased down for milk over 4 years and then eliminated. A new **recourse loan program** was initiated for dairy products starting in the year 2000. The **peanut program** was continued but revised to reduce the likelihood of the federal government incurring loan program costs due to loan forfeitures. The minimum national poundage quota was eliminated. The **sugar program** also was continued but modified. Trade and food aid programs were reoriented toward greater market development, with increased emphasis on high-value and value-added products. Other provisions established a Commission to conduct a comprehensive review of changes to production agriculture under the 1996 Act, required **USDA** to conduct research on futures and options contracts through pilot programs, capped expenditures for the **Export Enhancement Program**, and changed the name of the Market Promotion Program to the **Market Access Program**. The 1996 Act also reauthorized the **Food Stamp Program** for 2 years and commodity donation programs for 7 years, and established a **Fund for Rural America** to augment existing resources for agricultural research and rural development. Other research authorities were revised and extended, some only for 2 years rather than 7 years. The 1996 Act authorized new enrollments in the **Conservation Reserve Program** to maintain total acreage at up to 36.4 million acres. Other conservation programs were also revised and extended. The Act also contained numerous provisions in the areas of farm credit, rural development, and generic commodity promotion through **check-off programs**, among others.

Federal Crop Insurance Corporation (FCIC) — The wholly owned federal corporation within **USDA** that administers the federal **crop insurance** program. The **FAIR Act of 1996** created an Office Of Risk Management (which **USDA** has renamed the **Risk Management Agency**), which houses the FCIC.

Federal Crop Insurance Program — See **crop insurance**.

Federal Crop Insurance Reform Act of 1994 — This Act is Title I of P.L. 103-354 (October 4, 1994). Beginning with the 1995 crops, it modifies the federal **crop insurance** program by authorizing a new **catastrophic (CAT)** coverage level available to farmers. The premium on this level of coverage (crop losses in excess of 50% receiving a payment of 60% of the market price of the insured crop) is 100% subsidized by the government, but requires a farmer to pay a \$50 per crop per county administrative fee. The Act allows farmers to purchase additional insurance coverage providing higher yield or price protection levels, with the premium on this buyup coverage partially subsidized by the government. The Act also creates the **Noninsured Assistance Program (NAP)**, a permanent disaster payment program for crops not covered by crop insurance. The 1994 Act amends and in many cases suppresses major portions of the Federal Crop Insurance Act of 1980 (P.L. 96-365, September 26, 1980) which serves as the authorizing statute for the federal crop insurance program. The 1980 Act expanded the scope of the crop insurance program and permitted USA to subsidize farmer premium payments.

Federal Farm Credit Banks Funding Corporation (FFCBFC) — An entity within the **Farm Credit System (FCS)** that manages and coordinates the sale of system-wide bonds and notes in the national financial markets. Since the FCS, by law, is not permitted to accept customer deposits, these bonds and notes are the FCS's primary source of loanable funds.

Federal Food, Drug, and Cosmetic Act (FFDCA) of 1938 — P.L. 75-717 (June 25, 1938) is the basic authority intended to ensure that foods are pure and wholesome, safe to eat, and produced under sanitary conditions; that drugs and devices are safe and effective for their intended uses; that cosmetics are safe and made from appropriate ingredients; and that all labeling and packaging is truthful, informative, and not deceptive. The **Food and Drug Administration** is primarily responsible for enforcing the FFDCA, although **USDA** also has some enforcement responsibility. The **Environmental Protection Agency** establishes limits for concentrations of pesticide residues on food under this Act.

Federal grain inspection program — The grain inspection program administered by the **Grain Inspection, Packers and Stockyards Administration**. The program establishes official U.S. standards for grain and certain other commodities such as rice, hops, and processed grain products. The program offers a user-financed nationwide inspection and weighing system to certify that grain meets approved standards. By law, all grain exported from the United States must be officially inspected.

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) — P.L. 80-44 (June 25, 1947), as amended, is the basic authority that requires the **Environmental Protection Agency** to regulate the sales and uses of **pesticides**. The federal government began regulating pesticides in 1910 for the purpose of preventing the exploitation of farmers from adulterated and ineffective products. The original 1947 FIFRA was the first effort to address potential risks to human health. FIFRA was completely revised in 1972 (P.L. 92-516) to become the basis for current federal policy. The law directs EPA to restrict the use of pesticides to prevent unreasonable adverse effects on people and the environment taking into account the costs and benefits of various uses. The sale of any pesticide is prohibited unless it has gone through **registration** and is labeled to show the approved uses and restrictions.

Federal Land Bank Associations (FLBAs) — Institutions within the **Farm Credit System** that take applications for and service long-term real estate loans for the **Farm Credit Banks**, but do not have direct lending authority.

Federal Land Credit Associations — Institutions within the **Farm Credit System (FCS)** that have authority to make long-term real estate loans to eligible retail customers. FLCAs receive their funds directly from the **Farm Credit Banks**.

Federal Land Policy and Management Act of 1976 (FLPMA) — P.L. 94-579 (October 21, 1976) 1) set out for the **Bureau of Land Management** standards for managing **public land**, including land-use planning, sales, withdrawals, acquisitions, and exchanges; 2) authorized local advisory councils to represent major citizens groups interested in land use planning and management; 3) established criteria for review of proposed wilderness areas; and 4) provided guidelines for other aspects of public land management such as grazing. This law is also known as the BLM “organic” act.

Federal Meat Inspection Act of 1906 — Enacted June 30, 1906, as chapter 3913, 34 Stat. 674, and substantially amended by the Wholesome Meat Act 1967 (P.L. 90-201), requires **USDA** to inspect all cattle, sheep, swine, goats, and horses when slaughtered and processed into products for human consumption. The primary goals of the law are to prevent adulterated or misbranded livestock and products from being sold as food, and to ensure that meat and meat products are slaughtered and processed under sanitary conditions. These requirements apply to animals and their products produced and sold within states as well as to imports, which must be inspected under **equivalent** foreign standards. The **Food and Drug Administration** is responsible for all meats considered “exotic” at this time, including venison and buffalo.

Federal Noxious Weed Act — P.L. 93-629 (January 3, 1975) was adopted to prevent foreign weeds from entering and becoming established to the detriment of U.S. crops and livestock. Under this act, the **Animal and Plant Health Inspection Service** inspects incoming passengers, baggage, and cargo at international airports, seaports and border stations to intercept any of 2,300 listed noxious weeds before they enter the country. If a noxious weed does become established, APHIS has the authority under this act to work with federal, state, and local agencies to confine, eradicate, or control it.

Federal Plant Pest Act — P.L. 85-36 (May 23, 1957) prohibits the movement of plant pests from a foreign country into or through the United States unless authorized by **USDA**. The law gives USDA’s **Animal and Plant Health Inspection Service** broad authority to inspect, seize, quarantine, treat, destroy or dispose of imported plant and animal materials that are potentially harmful to U.S. agriculture, horticulture, forestry, and, to a certain degree, natural resources.

Federal Register (FR) — Each federal working day, this federal document publishes current Presidential orders or directives, agency regulations, proposed agency rules, notices and other documents that are required by statute to be published for wide public distribution. **USDA** publishes its rules, notices and other documents in the Federal Register. Final regulations are organized by agency and program in the **Code of Federal Regulations**.

Federal Seed Act — P.L. 76-354 (August 9, 1939) requires accurate labeling and purity standards for seeds in commerce, and prohibits the importation and movement of adulterated or misbranded seeds. The law works in conjunction with the **Federal Noxious Weed Act** to authorize the **Animal and Plant Health Inspection Service** to regulate the importation of field crop, pasture and forage, or vegetable seed that may contain noxious weed seeds.

Federal-State Marketing Improvement Program — Sometimes referred to in budget documents as Payments to States and Territories, the program provides matching funds to states for research and innovative projects aimed at identifying new market opportunities for producers or at improving the efficiency of agricultural marketing systems. The program is administered by **AMS** and has been funded federally at just over \$1 million per year recently.

Federal Water Pollution Control Act — See **Clean Water Act**.

Feed grain — Any of several grains most commonly used for livestock feed, including corn, grain sorghum, oats, rye, and barley. These grains and the farms producing them historically have received federal price and income support. They qualify as **contract commodities** and receive **production flexibility contract** payments.

Feed ratio — The relationship of the cost of feeding animals to their market weight, expressed as a ratio to the sale price of animals, such as the **hog/corn ratio**. This serves as an indicator of the profit margin or lack of profit in feeding animals to market weight.

Feeder cattle — A steer or cow mature enough to be placed in a feedlot where it will be fattened prior to slaughter. Feeder calves are less than 1 year old; feeder yearlings are between 1 and 2 years old.

Feedlot — A confined **cattle feeding** facility where feeder cattle (usually less than a year old) are put on higher protein rations to prepare them for slaughter as **fed cattle** at “good” or better **grades**. Commercial feedlots of 1,000 head or more are considered by the **Environmental Protection Agency** to be **concentrated animal feeding operation (CAFO)** and therefore subject to rules requiring permits setting effluent standards.

FERM — Forest Ecosystem Restoration and Management.

Fertilizer — Any organic or inorganic material, either natural or synthetic, used to supply elements (such as nitrogen (N), phosphate (P₂O₅), and potash (K₂O)) essential for plant growth. If used in excess or attached to eroding soil, fertilizers can become a source of water pollution.

FFA — Future Farmers of America.

FFCBFC — **Federal Farm Credit Banks Funding Corporation**.

FFDCA — **Federal Food, Drug, and Cosmetic Act**.

FFLI — **Fat free lean index**.

FIA — Futures Industry Association.

FICB — Federal Intermediate Credit Bank.

Field office technical guide — A manual placed in all **Natural Resources Conservation Service** district offices and **field service centers** that gives the technical specifications and guidelines for all approved **conservation practices**.

Field service agency — Generally refers to any one of the following **USDA** agencies that administer programs and provide services to farmers and other rural residents through an extensive network of state and local offices: the **Farm Service Agency, Risk Management Agency, Natural Resources Conservation Service, Rural Housing Service, Rural Business-Cooperative Service, and Rural Utilities Service**. The **Foreign Agricultural Service**, because of its overseas offices, also is considered a field service agency under the **Administrative Convergence** plan being developed by **USDA** in 1998. Although other **USDA** agencies and mission areas also have field offices nationwide and overseas, they generally are not considered field service agencies by the Department.

Field service center — A centralized location for a variety of **USDA** agency field offices. These have been reduced in number from about 3,700 to about 2,600 through closures and consolidations initiated as part of a **USDA** reorganization and streamlining effort mandated by the **Department of Agriculture Reorganization Act of 1994**. In 1999, **USDA** was still considering the closure of some additional offices. The centers are intended to provide “one-stop shopping” for clients of the **Farm Service Agency, the Natural Resources Conservation Service, and USDA’s rural development agencies**.

FIFRA — **Federal Insecticide, Fungicide, and Rodenticide Act**.

Filter strip — An area of vegetation, generally narrow and long, that slows the rate of runoff, allowing sediments, organic matter, and other pollutants that are being conveyed by the water to be removed. Filter strips reduce **erosion** and the accompanying stream pollution, and can be a **best management practice**.

Findley payments — Under the so-called Findley Provision authorized by the **Food Security Act of 1985** (and first sponsored by former Congressman Paul Findley), **USDA** was able to reduce the basic, formula-set **nonrecourse loan** rate for major crops by up to an additional 20% if that was necessary to keep the United States competitive in international markets.

If done, direct compensatory payments were made to producers equal to the amount of the loan rate reduction. These “Findley Payments,” limited to \$200,000 per **person**, essentially added to the larger direct **deficiency payment**. The Findley provisions are superseded by the marketing loan repayment provisions of the **FAIR Act of 1996**.

FIP — Forestry Incentives Program

Fire ants — A South American stinging ant that has become established in southern states from North Carolina to Texas. The **Animal and Plant Health Inspection Service** quarantines nursery products from affected states and conducts research to find promising biological control agents in South America that could be imported to combat the pest in the United States.

Fish and Wildlife Service (FWS) — FWS, in the **Department of the Interior**, is the federal agency charged with managing and protecting the nation’s wild plants and animals, including **endangered** and **threatened species**. It generally works closely with state agencies, which have management primacy for most **species**. (The federal government has assumed responsibility for marine mammals, migratory birds, and endangered and threatened species). It manages the **National Wildlife Refuge System**, and cooperates with private landowners in **habitat conservation**.

Fish farming — Usually, freshwater commercial **aquaculture**; catfish farms are an example.

FLB — Federal Land Bank

FLBA — Federal Land Bank Association

FLCA — Federal Land Credit Association

Flex acreage — The Omnibus Budget Reconciliation Act of 1990 mandated that **deficiency payments** not be made on 15% of a farm’s crop acreage base, called normal flex acres. The acreage could be planted to any **program crop** (called flexing), but not fruits and vegetables. An additional 10% of the farm’s **base acreage** could be flexed at the option of the operator. Flexing did not diminish the crop acreage base of a farm. The **FAIR Act of 1996** effectively provides total flexibility among all commodities, except for fruits and vegetables.

Flood risk reduction program — Provides for contracts for producers on farms that have **contract acreage** under Title I of the **FAIR Act of 1996** that are frequently flooded. Individuals can receive up to 95% of transition payments and projected **crop insurance** payments in lieu of **market transition payments**. In return, producers must comply with **swampbuster** and **conservation compliance** provisions and forego future conservation program payments and disaster payments. Though authorized, this program has not yet been implemented.

Flow to market — A quantity provision in a fruit or vegetable **marketing order** that does not change the total quantity that can be marketed during a season, but rather controls the rate or time period that quantities can be shipped to markets by means of **shipping holidays** and **prorates**.

FLPMA — Federal Land Policy and Management Act

Flue-cured tobacco — A type of cigarette tobacco, it and **burley tobacco** account for more than 90% of U.S. tobacco production. Flue-cured tobacco production is limited by national **marketing quotas** and **acreage allotments**, and is eligible for **nonrecourse price support loans**. Flue-cured production is centered in North Carolina.

Fluid differential — In federal **milk marketing orders**, the **Class I differential** is the amount added to the **basic formula price** to determine a region’s minimum price for milk used for fluid (drinking) purposes.

Fluid Milk Promotion Act of 1990 — This is the designation given to Subtitle H of Title XIX of the **Food, Agriculture, Conservation, and Trade Act of 1990**. Subtitle H authorized the establishment of a national milk processor **check-off program** for fluid milk promotion. The program is funded through a 20-cent per hundredweight (**cwt.**) **assessment** on all milk processed for fluid consumption. The Act required **USDA** to conduct a referendum among fluid milk processors to determine if a majority favored implementing the program. The Fluid Milk Order was approved by processors and became effective December 10, 1993.

Fluid Milk Processor Promotion Program — A national program authorized by the **Fluid Milk Promotion Act of 1990** (Fluid Act) with the purpose of increasing consumption of milk and dairy products and reducing milk surpluses by developing generic advertising programs. The program is funded by a mandatory 20-cent per hundredweight **assessment** on processors for all fluid milk processed in the contiguous 48 states and marketed commercially. The program is administered by the National Fluid Milk Processor Promotion Board. It should not be confused with the dairy farmer funded **Dairy Promotion Program**. The **FAIR Act of 1996** extends the Fluid Milk Promotion Program through 2002.

FMD — **Foot-and-mouth disease.**

FMDP — **Foreign Market Development Program; Cooperator Program.**

FmHA — **Farmers Home Administration.**

FMI — Food Marketing Institute.

FMIA — **Federal Meat Inspection Act.**

FMMO — Federal **milk marketing orders.**

FMV — Fair market value.

FNS — **Food and Nutrition Service.**

FO — Farm ownership loans.

FOIA — Freedom of Information Act.

Foliar nutrient — Any liquid substance applied directly to the foliage of a growing plant for the purpose of delivering an essential nutrient in an immediately available form.

Food additives — Any substance or mixture of substances other than the basic foodstuff present in a food as a result of any phase of production, processing, packaging, storage, transport or handling. **USDA** allows food additives in meat, poultry and egg products only after they have received **Food and Drug Administration** safety approval. Food additives are regulated under the authority of the **Federal Food Drug and Cosmetic Act** and are subject to the **Delaney Clause**.

Food, Agriculture, Conservation, and Trade Act of 1990 (FACT) — P.L. 101-624 (November 28, 1990) was a 5-year omnibus **farm bill**. It continued to move agriculture in a market-oriented direction by freezing **target prices** and allowing more planting flexibility. New titles included rural development, forestry, **organic** certification, and **commodity promotion programs**. The law established a Rural Development Administration (RDA) in the **USDA** to administer programs relating to rural and small community development. It extended and modified the **Food Stamp Program** and other domestic nutrition programs and made major changes in the operation of **P.L. 480**. It revised existing law involving agricultural trade credits and guarantees. The **FACT Act** was soon altered by the **Food, Agriculture, Conservation, and Trade Act Amendments of 1991** (P.L. 102-237) to correct errors and alleviate problems in implementing the law. The amendments allowed the Farm

Credit **Bank for Cooperatives** to make loans for agricultural exports and established a new regulatory scheme and capital standards for the **Federal Agricultural Mortgage Corporation (Farmer Mac)**. The law also established new handling requirements for eggs to help prevent food-borne illness. More policy changes were made by the Omnibus Budget Reconciliation Act (OBRA) of 1993 (P.L. 103-66). This law intended to reduce federal farm spending by \$3 billion over 5 years by eliminating USDA's authority to waive minimum acreage **set-aside** requirements for wheat and corn, reducing deficiency payments to farmers participating in the 0/92 and 50/92 programs from 92% to 85% of the normal payment level, reducing the acreage to be enrolled in the **Conservation Reserve Program** and **Wetlands Reserve Program**, and requiring improvement in the actuarial soundness of the federal crop insurance program. The measure also provided for a temporary moratorium on sales of synthetic bovine growth hormone and reduced the loan rate for soybeans. It reduced **Market Promotion Program (MPP)** funding through fiscal 1997 and provided for a series of significant MPP operational reforms. It also provided, among other provisions, for the designation of a series rural (and urban) empowerment and enterprise zones, eligible for special federal aid and tax credits.

Food Aid Consultative Group — A group created by the **FACT Act of 1990** to review and address issues concerning the effectiveness of regulations and procedures that govern U.S. food aid programs. The **FAIR Act of 1996** extended the authority for the Food Aid Consultative Group through 2002.

Food Aid Convention (FAC) — See **International Grains Agreement**.

Food and Agricultural Act of 1965 — P.L. 89-321 (November 3, 1965) was the first multi-year farm legislation, providing for 4-year commodity programs for wheat, feed grains, and upland cotton. It was extended for 1 more year, through 1970, by enactment of P.L. 90-559. It authorized a Class I milk base plan for the 75 federal **milk marketing orders** and a long-term acreage diversion under a Cropland Adjustment Program. The law also continued payment and **acreage diversion programs** for feed grains and cotton, and certificate and diversion programs for wheat.

Food and Agriculture Act of 1977 — P.L. 95-113 (September 9, 1977) was an omnibus **farm bill**. It increased price and income supports and established a **farmer-owned reserve** for grain. It also established a new two-tiered pricing program for peanuts. Under the **peanut program**, producers were given an **acreage allotment** on which a **poundage quota** was set. Growers could produce in excess of their quota, within their acreage allotment, but would receive the higher of the two price-support levels only for the quota amount. Peanuts in excess of the quota are referred to as "additional." Title XIII was designated the **Food Stamp Act of 1977** and replaced the original 1964 Act with a new law making significant changes, including the elimination of the purchase requirement and simplification of eligibility requirements. Title XIV was designated the **National Agricultural Research, Extension, and Teaching Policy Act** and made USDA the leading federal agency for agricultural research, extension, and teaching programs. It also consolidated the funding for these programs.

Food and Agriculture Councils (FACs) — These councils were instituted in 1982 by **USDA** to function as interagency coordinating groups on three levels: national, state, and local. The state FACs are composed of senior level officials of individual USDA agencies within each state, and in recent years they have played a major role in managing the reorganization and "downsizing" of USDA's field office structure. Local FACs have consisted of USDA representatives at county or area-wide levels; and a national FAC at USDA's Washington headquarters has served as a liaison with the state and local FACs.

Food and Agriculture Organization of the United Nations (FAO) — A UN organization, founded in 1945, that collects and disseminates information about world agriculture. FAO also provides technical assistance to **developing countries** in agricultural production and distribution, food processing, nutrition, fisheries, and forestry. The FAO's Global Information Early Warning System (GIEWS) monitors for famine conditions in regions of risk.

Food and Drug Administration (FDA) — An agency within the Public Health Service of the Department of Health and Human Services. FDA is a public health agency, charged with protecting consumers by enforcing the **Federal Food, Drug, and Cosmetic Act** and several related public health laws. Importantly for agriculture, a major FDA mission is to protect the

safety and wholesomeness of food. In this regard, its scientists test samples to see if any substances, such as pesticide residues, are present in unacceptable amounts, it sets food labeling standards, and it sees that medicated feeds and other drugs given to animals raised for food are not threatening to the consumer's health.

Food and fiber system— That sector of the U.S. economy that includes agricultural production and all economic activities supporting or utilizing that production, including farm machinery and chemical production, and processing, manufacturing, transportation, and retailing. In 1995, the food and fiber system employed 22.9 million workers, or 17.3% of the U.S. workforce, and accounted for \$983 billion, or 13.5% of the **gross domestic product**.

Food and Nutrition Service (FNS)— The **USDA** agency whose goals are to provide needy people with access to a more nutritious diet, to improve the eating habits of the nation's children, and to stabilize farm prices through the distribution of surplus foods. It administers 15 domestic food assistance programs (including the **food stamp program**, **child nutrition programs** (e.g., school feeding programs), and the **Special Supplemental Nutrition Program for Women, Infants and Children (WIC)**). FNS works in partnership with the states and reimburses most of the administrative costs the states incur for carrying out local program administration.

Food-borne illnesses— Illnesses caused by pathogens that enter the human body where food is the carrier. In order of the incidence of cases, the leading pathogens are *Campylobacter* (bacteria commonly found in poultry), *Salmonella* (bacteria commonly found in poultry, eggs, meat, and milk), *Shigella* (bacteria transmitted through direct contact with an infected person, or from food or water contaminated by an infected person), *E. coli* 00157 (bacteria often found in cattle and transmitted through undercooked, contaminated ground beef), *Yersinia* (cause of diarrheal illness known to be most frequently associated with undercooked pork), *Listeria* (bacteria found in a variety of raw food, such as uncooked meats and vegetables, as well as in processed foods that become contaminated after processing), *Vibrio* (bacteria that can cause disease in those who eat contaminated seafood or have an open wound that is exposed to seawater).

Food Code— The code, published by the **Food and Drug Administration**, consists of model requirements for safeguarding public health that may be adopted and used by various parts of local, state, and federal governments, if desired. It is used by officials who have compliance responsibilities for food service, retail food stores, or food vending operations.

Food Distribution Program on Indian Reservations (FDPIR)— This program allows Indian Tribal Organizations to operate a food distribution program as an alternative to the **food stamp program** for those living on or near an Indian reservation. Eligibility for benefits is the same as that for the food stamp program and funds for the program are drawn from food stamp appropriations. Foods contained in packages include frozen and/or canned meats and poultry, canned fruits and vegetables and juices, dry cereals, cornmeal, flour, butter, macaroni, cheese, evaporated and nonfat dry milk, oats, peanuts and peanut butter, shortening and oils.

Food donations to charitable institutions, soup kitchens, and food banks— Donations of food by the **Commodity Credit Corporation** to help provide meals to needy people. Foods donated are from agricultural surpluses acquired by **USDA** as part of its price stabilization and surplus removal activities. Eligible charitable groups range from churches operating community kitchens for the homeless to orphanages and homes for the elderly. Other eligible groups include meals-on-wheels programs, soup kitchens, temporary shelters, correctional institutions offering rehabilitative activities, group homes for the mentally retarded, and hospitals that offer general and long-term health care.

Food for Peace Program— A label given to the food donation activities carried out overseas under **P.L. 480**.

Food for Progress Program (FPP)— A food aid program originally authorized by the **Food Security Act of 1985** to provide commodities on credit terms or on a grant basis to **developing countries** and emerging democracies to assist in the introduction of elements of free enterprise into the countries' agricultural economies. Commodities may be provided under authority of **P.L. 480** (Title I) or **Section 416(b)**; the CCC may purchase commodities for use in Food for Progress if the commodities are currently not held in CCC inventories. The **FAIR Act of 1996** extends authority for the FPP through 2002.

Food guide pyramid — A graphic developed by **USDA** as the consumer guide to implementing the **dietary guidelines** in their own food choices. It consists of a six food groups and suggests the foods and number of servings from each group that should be consumed daily. At the bottom is the grains group, of which 6-11 servings should be consumed daily. The next level up contains the vegetable group (3-5 servings) and the fruits group (2-4 servings). The third level contains the dairy group (2-3 servings) and the protein group (2-3 servings). At the top of the pyramid is the group that should be eaten sparingly, which includes fats, oils and sweets. USDA published a Kids' Food Pyramid in the spring of 1999.

Food insecurity — See **food security**.

Food package — Generally refers to foods contained in the package of specific items provided to those participating in the **WIC program or CSFP**. Also may refer to foods distributed by food banks and pantries, and by Indian Tribal agencies distributing commodities in lieu of food stamps.

Food power — The act of withholding or making available agricultural commodities for export or aid by an exporting nation or group of nations for the purpose of influencing the actions of another country or group of countries. Food power implies a foreign policy motivation rather than a financial or humanitarian motivation to export activities.

Food safety initiative — A 1997 interagency initiative among the **Food and Drug Administration, Center For Disease Control, Environmental Protection Agency, and U.S. Department of Agriculture** to implement a series of coordinated efforts to reduce the annual incidence of food borne illness and resultant economic losses to consumers and industry by enhancing the safety of the U.S. food supply.

Food Safety and Inspection Service (FSIS) — A 10,000 employee agency within **USDA** responsible for ensuring food safety in some 6,400 meat and poultry plants throughout the United States; the agency also certifies the safety programs operated for state and foreign plants. Most food safety inspection costs are borne by taxpayers rather than the industry, in contrast to user fees for inspection and grading related to marketing standards.

Food security — Access by all people at all times to enough food for an active healthy life. Food security at a minimum includes the ready availability of nutritionally adequate and safe food, and an assured ability to acquire acceptable foods in socially acceptable ways, that is, without having to resort to emergency food supplies, scavenging, stealing, or other coping strategies. The World Food Summit, convened in Rome in November 1996 by the Food and Agriculture Organization of the United Nations, estimated that 800 million people worldwide do not have enough food to meet their basic nutritional needs. Representatives of the more than 180 nations attending the Summit pledged to work to reduce this number by half by no later than 2015. Causes of food insecurity may include poverty, civil conflict, governmental corruption, environmental degradation, and natural disasters. A U.S. position paper on international (world) food security, released in October 1997, argues that food security also requires "...social and economic conditions which empower individuals to gain access to food, either by producing food themselves or earning income to buy food."

Food Security Act of 1985 — P.L. 99-198 (December 23, 1985), a 5-year omnibus **farm bill**, allowed lower commodity price and income supports and established a dairy herd buyout program. Changes were made in a variety of other **USDA** programs. Several enduring conservation program were created, including **sodbuster, swampbuster**, and the **Conservation Reserve Program**. Shortly after enactment, the **Technical Corrections to Food Security Act of 1985 Amendments** (P.L. 99-253, February 28, 1986) gave USDA discretion to require **cross-compliance** for wheat and feed grains instead of mandating them, changed acreage base calculations, and specified election procedures for local **Agricultural Stabilization and Conservation** committees. Technical changes and other modifications were enacted by the **Food Security Improvements Act of 1986** (P.L. 99-260, March 20, 1986), including limiting the **non-program crops** that could be planted under the 50/92 provision, permitting haying and grazing on diverted wheat and feed grain acreage for a limited period in regions of distress, and increasing deductions taken from the price of milk received by producers to fund the **dairy**

termination program (also called the whole herd buyout) program. Again in 1986, the Omnibus Budget Reconciliation Act (P.L. 99-509) made changes in the 1985 Act requiring advance deficiency payments to be made to producers of 1987 wheat, feed grains, upland cotton, and rice crops at a minimum of 40% for wheat and feed grains and 30% for rice and upland cotton.

The 1985 Act also amended the **Farm Credit Act of 1971**. Further commodity program changes were made in the FY1987 agricultural appropriations bill (P.L. 99-591, October 30, 1986). In addition to its funding provisions, P.L. 99-591 set the annual **payment limitation** at \$50,000 per person for deficiency and paid land diversion payments, and included honey, resource adjustment (excluding land diversion), disaster, and Findley payments under a \$250,000 aggregate payment limitation. Once again, the Omnibus Budget Reconciliation Act of 1987 (P.L. 100-203) not only set the 1988 fiscal year budget for agriculture and all federal agencies, but also set **target prices** for 1988 and 1989 **program crops**, established loan rates for program and non-program crops, and required a voluntary paid land diversion for feed grains. P.L. 100-203 further defined who could receive farm program payments by defining a “**person**” in terms of payment limitations.

Food Security Commodity Reserve — A special reserve of up to 4 million metric tons of wheat, corn, sorghum, and rice to be used for international humanitarian purposes. This reserve created by the **FAIR Act of 1996** is an expansion and replacement of the **Food Security Wheat Reserve** established by the Agriculture Act of 1980. The reserve is to be used to provide famine relief and other emergency relief when commodities are not available for programming under **P.L. 480**.

Food Security Wheat Reserve (FSWR) — Title III of the Agriculture Act of 1980 established a reserve of up to 4 million **metric tons** of wheat for use in meeting emergency food needs in **developing countries**. This reserve generally was to be used to meet famine or other urgent or extraordinary relief requirements during periods of tight supplies and high prices when commodities are not available under the provisions of **P.L. 480**. The FSWR was replaced by the **Food Security Commodity Reserve** under the **FAIR Act of 1996**.

Food Service Management Institute — This institute provides instruction, research, and materials in support of better food service management practices by child nutrition providers receiving federal support (e.g., schools operating school meal programs). It is permanently authorized under Section 21 of the **National School Lunch Act**, with an annual entitlement funding level of \$3 million.

Food Stamp Act of 1964 — P.L. 88-525 (August 31, 1964) provided permanent legislative authority to the **Food Stamp Program**, which had been administratively implemented on a pilot basis in 1962. It was later replaced and completely rewritten and revised by the food stamp provisions of the **Food and Agricultural Act of 1977** (Title XIII), which eliminated the purchase requirement and simplified eligibility requirements. Amendments were made to this Act in 1981-82, 1984-85, 1988, 1990, and 1994. Most recently, the 1996 omnibus welfare reform law (the **Personal Responsibility and Work Opportunity Reconciliation Act, PRWORA**) incorporated the most extensive changes to the food stamp program since the 1977 rewrite of the law. This was followed by more changes including the 1997 Balanced Budget Act (P.L. 105-33) and the 1998 agricultural, research, extension, and education reform law (P.L. 105-185). The current Food Stamp Act includes authority through FY2002 for the regular **food stamp program**, for **nutrition assistance grants** to Puerto Rico and American Samoa (in lieu of food stamps), and for commodity purchases for the **emergency food assistance program**.

Food Stamp Program (FSP) — This program supplements the food buying power of eligible low-income **households** by providing them with monthly benefits through coupons or **electronic benefit transfer (EBT)** cards. Eligibility is governed primarily by a household’s financial resources (e.g., income eligibility generally is limited to those with total cash income below 130% of the federal **poverty guidelines**). However, applicants and recipients also must meet some non-financial requirements — e.g., the eligibility of noncitizens is limited, work requirements are imposed on most adults. In general, benefits may be used to purchase any food item for home consumption in an approved food concern. The regular food stamp program operates in the 50 states, the District of Columbia, Guam, and the Virgin Islands. Variants of the regular program (funded through **nutrition assistance grants**) operate in Puerto Rico, American Samoa, and the Northern Marianas. Food stamps and nutrition assistance grants are administered by the **Food and Nutrition Service** and are funded as entitlements by annual agriculture appropriations acts.

Food borne pathogens — Disease-causing microorganisms found in food, usually bacteria, fungi, parasites, protozoans, and viruses. The top ten pathogens are: *Salmonella*; *Staphylococcus Aureus*; *Campylobacter jejuni*; *Yersinia enterocolitica*; *Listeria monocytogenes*; *Vibrio cholerae non-01*; *Vibrio Parahemolyticus*; *Bacillus cereus*; *Escherichia coli - enteropathogenic*; and *Shigella*. Many of these pathogens may be found in contaminated meat, poultry, shell eggs, dairy products, and seafood.

Foot-and-mouth disease (FMD) — A major disease of cloven-footed animals (e.g., cattle and pigs) that does not exist in the United States. The **Animal and Plant Health Inspection Service** conducts a surveillance program to track the disease in foreign countries, regulates the importation of animal products from countries where FMD exists, and tests imported animals in quarantine.

FOR — Farmer-Owned Grain Reserve.

FPP — Food for Progress Program.

Forage value index (FVI) — A derived index of the relative change in the previous year's average monthly rate per head for pasturing cattle on privately owned land in the West. Used in calculating federal **grazing fees**.

Foreign Agricultural Service (FAS) — The **USDA** agency that administers agricultural export and food aid programs. FAS is also responsible for formulating agricultural trade policy, negotiating to reduce foreign agricultural trade barriers, and carrying out programs of international cooperation and technical assistance. The agency maintains a global network of agricultural officers (counselors and attaches) as well as a Washington-based staff to analyze and disseminate information on world agriculture and trade, develop and expand export markets, and represent the agricultural trade policy interests of U.S. producers in multilateral forums.

Foreign Market Development Program (FMDP) — More commonly called the **Cooperator Program**.

Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA) — Provides authority to the **Forest Service** to prepare and update an assessment every 10 years to inventory and monitor the status and trends of the forest lands and range lands in the **National Forest System**, and to prepare a long-range plan every 5 years to guide Forest Service policies.

Forest health — A term used for a collection of concerns over the alleged deterioration in forest conditions, including both current problems (e.g., insect and disease infestations, wildfires, and related tree mortality) and risks of future problems (e.g., too many small-diameter trees (overstocking), excessive biomass, and an unnatural mix of tree species in mixed stands).

Forest plans — Land and resource management plans for units of the **National Forest System** under the **National Forest Management Act**. The Act specifies a detailed process and numerous requirements, including public participation and periodic revision, intended to achieve **multiple use** in the **national forests**.

Forest Service (FS) — The largest **USDA** agency in terms of employees (about 37,000) with responsibility for administering the **National Forest System**, for providing financial and technical forestry assistance to states and to private landowners under **State and Private Forestry**, and for conducting Forestry Research.

Forestland — A classification of land use in the **Natural Resources Inventory (NRI)**. It includes areas where trees cover at least 10% of the land and must be at least an acre in size. Forestland was found on 395 million acres, almost 30% of all private lands, in the 1992 NRI.

Forestry Incentive Program (FIP) — Initiated in 1975 as an independent program and currently administered by the **Natural Resources Conservation Service**, FIP provides financial assistance for up to 65% of the cost of tree planting and timber stand improvement on private forest stands of less than 1,000 acres. Payments are limited to \$10,000 per year. More than 4,500 forest owners with 165,000 acres participated in 1995. The program now is authorized under the **Cooperative Forestry Assistance Act of 1978**, as amended.

Forfeiture penalty (sugar) — A penalty paid to the **Commodity Credit Corporation** by a processor of sugar beets or sugarcane who, having taken out a **nonrecourse loan**, decides to hand over sugar pledged as collateral to the **CCC** rather than accept the then-market price (see **loan forfeiture**). The penalty is 1 cent/lb. on raw cane sugar, 1.072 cents/lb. on refined beet sugar. Some view this penalty as lowering the **price support** levels authorized by the **FAIR Act of 1996** by the penalty amount (i.e., for raw cane sugar, from 18 cents/lb. to 17 cents/lb.).

Formula funds — Federal dollars distributed to the **land grant colleges of agriculture** through formulas found in the **Hatch Act**, the **Smith-Lever Act**, the **McIntire-Stennis Act**, and the **Evans-Allen Act** for (1) agricultural research at the **state agricultural experiment stations**, (2) extension programs and (3) forestry research at the land grant colleges of agriculture, and (4) research at the **1890 institutions**, respectively.

Formula pricing — An arrangement where a buyer and seller agree in advance on the price to be paid for a product delivered in the future, based upon a pre-determined calculation. For example, a packer might agree to pay a hog producer the average cash market price on the day the hogs will be delivered, plus a 2-cent per-pound premium. Such transactions have been used widely in agriculture, particularly for livestock. Users believe that formula pricing brings efficiency and predictability to market transactions. However, as the use of formula pricing expands, fewer animals are sold in cash markets, where prices are more widely reported and understood by producers. Some of these producers believe that formula pricing makes it harder to determine the true value of their animals in the marketplace, and creates greater opportunity for buyers to manipulate and pay lower prices.

Forward contract — A cash transaction common in many industries, including agricultural commodity merchandising, in which a commercial buyer and seller agree upon delivery of a specified quality and quantity of goods at a specified future date. A price may be agreed upon in advance, or there may be agreement that the price will be determined at the time of delivery. Forward contracts, in contrast to **futures contracts**, are privately negotiated and are not standardized.

Forward market — This refers to informal (non-exchange) trading of commodities to be delivered at a future date. Contracts for forward delivery are “personalized” (i.e., delivery time and amount are determined between seller and customer).

Forward selling — **Forward contracting** in which the price is fixed at the time the contract is entered.

Four-firm ratio — It is common to express the degree of **concentration** within an industry, including agriculture (that is, the degree to which a few firms dominate sales or production) as a ratio, by stating the share (%) held by the top four firms.

FPP — **Farmland Protection Program**

FPPA — **Farmland Policy Protection Act**

FR — **Federal Register**

FR — Final rulemaking.

FRAC — **Food Research and Action Center**

Free lunch (or breakfast, snack, or milk) — Refers to a federally subsidized meal (or snacks or half-pint of milk) that is offered under a child nutrition program at no cost to children who apply for and whose family income qualifies them for it. Income eligibility for free meals is set at 130% or less of the federal poverty income level, and substantially higher subsidies generally are provided for these meals than for **paid** meals, or **reduced price** meals.

Free market — A system in which the market forces of supply and demand determine prices and allocate available supplies, without government intervention. The concept of a free-market approach in agricultural policy, in its purest form, is no government price and income support programs, supply management programs, export subsidies, or barriers to international trade.

Free rider — In agricultural policy, the term generally refers to a firm or person who benefits from a collectively funded activity (such as a **generic advertising and promotion**, or **check-off**, program) without contributing to its costs.

Free stocks — Commodity stocks owned by farmers or others in the trade, rather than by those owned or controlled by the government. (Supplies in the **Food Security Commodity Reserve** are government-controlled and not considered free stocks.)

Free trade area — A group of countries that have removed trade barriers among the members, but each country may maintain its own trade regime with nonmember countries. The best known current example is the **North American Free Trade Agreement (NAFTA)**.

Free Trade Agreement of the Americas (FTAA) — A proposed **multilateral agreement** that would establish free trade in all products, including agricultural products, for all the countries of the Western Hemisphere, except Cuba. Launched at the Summit of the Americas in Santiago, Chile, in March 1998, the negotiations to establish the FTAA are expected to be completed by 2005.

Freedom-to-farm — A phrase that was used in the congressional arena to characterize the **production flexibility contract** provisions of the **FAIR Act of 1996**.

FS, USFS — U.S. **Forest Service**.

FSA — **Farm Service Agency**.

FSCR — **Food Security Commodity Reserve**.

FSIS — **Food Safety and Inspection Service**.

FSMIP — **Federal-State Marketing Improvement Program**.

FSP — **Food Stamp Program**.

FSU — Former Soviet Union.

FSWR — **Food Security Wheat Reserve**.

FTA — **Free trade area**, or free trade agreement.

FTAA — **Free Trade Area of the Americas**.

FTE — Full-time equivalent (generally refers to agency staffing levels).

Full-cost water — An annual rate for water delivered from **Bureau of Reclamation** facilities, which includes project construction costs attributed to irrigation, as well as outstanding deficits on operation and maintenance charges, with interest on both accruing from October 12, 1982. The term is defined in Section 202 of the **Reclamation Reform Act of 1982**. The Bureau charges full-cost for water delivered to lands above the **acreage limitation**.

Fumigant — A vaporized pesticide used to control pests in soil, buildings and greenhouses, and chambers holding products such as fruits to be treated. **Methyl bromide** is an example.

Fumonisin — A **mycotoxin** that can cause liver and brain damage in horses.

Fund for Rural America — A fund established by the **FAIR Act of 1996** to augment existing resources for agricultural research and rural development through an annual transfer of funds from the U.S. Treasury to **USDA**. One-third of the fund is designated for competitive agricultural research grants, one-third for rural development projects, and one-third for either research or rural development, at the Secretary's discretion. The FAIR Act authorized the U.S. Treasury to transfer \$100 million annually to the Fund for 3 years. The **Agricultural Research, Extension, and Education Reform Act of 1998** extended the authority for the program through FY2003 with an annual transfer to USDA of \$60 million. However, the omnibus appropriations act for FY1999 (P.L. 105-277, October 21, 1998) prohibited the expenditure of the \$60 million for Fund grants and projects.

Fungibility — The characteristic of interchangeability. **Bulk commodities** are generally described as fungible, whereas those with special characteristics may be marketed as **identity preserved**. **Futures contracts** for the same commodity and delivery month are fungible due to their standardized specifications for quality, quantity, delivery date and delivery locations.

Fungicide — Any pesticide used to control, deter, or destroy fungi, which are forms of plant life (including molds and yeasts) that lack chlorophyll and are unable to make their own food (such as the plant pathogen, powdery mildew).

Furrow irrigation — Small, shallow channels guide water across the surface of a leveled field. Crops are typically grown on a ridge or raised bed between the furrows. This is the major irrigation system that is based on gravity.

Futures contract — A standardized agreement calling for deferred delivery of a commodity, or its equivalent, entered through organized futures exchanges. Most agricultural futures contracts call for physical delivery, but feeder cattle futures contracts call for cash settlement at contract maturity. In fact, contracts are usually liquidated before delivery. Traders are classified as hedgers or speculators. The **FAIR Act of 1996** requires **USDA** to conduct research through pilot programs to determine if futures and options contracts can provide producers with reasonable protection from the financial risks of fluctuations in price, yield, and income inherent in the production and marketing of agricultural commodities.

Futures price — (1) Commonly held to mean the price of a commodity for future delivery that is traded on a futures exchange. (2) The price of any **futures contract**.

FVI — **Forage value index**.

FW — **Farmed wetlands**.

FWPCA — Federal Water Pollution and Control Act (**Clean Water Act**)

FWS — **Fish and Wildlife Service**.

FY — Fiscal year.

GAO — General Accounting Office.

GAP — Government Accountability Project.

Gas chromatograph / mass spectrometer — An analytical technique for identifying the molecular composition and concentrations of various chemicals in water and soil samples.

Gasohol — Registered trade name for a blend consisting of 90% unleaded gasoline and 10% fermentation **ethanol**. Gasohol emissions contain less carbon monoxide than those from gasoline.

GATT — **General Agreement on Tariffs and Trade** (see **Uruguay Round** and **World Trade Organization**).

GDP — **Gross domestic product**.

General Agreement on Tariffs and Trade (GATT) — An agreement originally negotiated in Geneva, Switzerland in 1947 to increase international trade by reducing **tariffs** and **nontariff trade barriers**. The agreement provides a code of conduct for international commerce and a framework for periodic **multilateral negotiations** on trade liberalization and expansion. The **Uruguay Round** Agreement (resulting from negotiations that stretched from 1986 through 1993 among over 100 nations) established the **World Trade Organization (WTO)** to replace the institutions created by the GATT. The WTO officially replaced the GATT institutions on January 1, 1995. The WTO administers the GATT 1947, the revisions in GATT resulting from the Uruguay Round negotiations (GATT 1994), dispute resolution among WTO member countries, and various agreements resulting from other previous multilateral trade negotiations.

Generalized System of Preferences (GSP) — First authorized by the **Trade Act of 1974**, GSP allows some 140 **developing countries** to ship more than 3,000 products to the United States **duty-free**. This helps developing countries to generate foreign exchange needed to purchase import commodities. The United States and 18 other industrialized nations began GSP programs in the mid-1970s to promote the economic growth of developing nations.

Generic advertising and promotion — The promotion of a particular commodity without reference to a specific producer, brand name, or manufacturer. Because individual producers of nearly homogeneous agricultural commodities cannot easily convince consumers to choose one egg or orange or a single cut of beef over another, they join together in **commodity promotion programs** to use generic advertising to expand total demand for the commodity, thereby helping their own sales as well. Activities are intended to expand both domestic and export demand; examples include advertising, nutrition education, research to improve product quality and appeal, market research studies, and technical assistance. These activities are often self-funded through assessments on marketings called **check-off programs**.

Generic certificates — **Commodity certificates** used by the CCC in the 1980s to meet payment obligations and simultaneously dispose of commodity inventories.

Genetic engineering — The use of recombinant DNA or other specific molecular gene transfer or exchange techniques to add desirable traits to plants, animals, or other organisms, or to enhance biological processes. Organisms modified by genetic engineering are sometimes referred to as transgenic, bioengineered, or genetically modified. The **Agricultural Research Service** does in-house research in this field, and the **Animal and Plant Health Inspection Service** regulates the release of genetically engineered organisms for field experiments.

General Sales Manager (GSM) — General Sales Manager of the **Foreign Agricultural Service**. This office administers the **export credit guarantee programs (GSM-102 and GSM-103)**, the **export enhancement program**, the **P.L. 480 program**, and other **USDA** export assistance programs.

Generally Recognized as Safe (GRAS) — A regulatory category created for a group of food additives that were exempted from the more rigorous regulatory requirements for food additives in the 1958 Food Additives Amendment to the Food Drug and Cosmetics Act of 1938. A substance was accorded GRAS status, if it was generally recognized by experts qualified by scientific training and experience to evaluate its safety, as having been adequately shown through scientific procedures or experience based on common use in food to be safe under the conditions of its intended use.

Genetically Modified Organisms (GMO) — A term, currently used most often in international trade discussions, that designates crops that carry new traits that have been inserted through advanced genetic engineering methods (e.g., Flavr Saver tomato, Roundup Ready soybeans, **Bt** cotton, Bt corn). GMO crops are meeting resistance from some trading partners, particularly the European Union, that are responding in turn to consumer concerns over public health and environmental safety aspects of GMOs. **USDA** also is being pressured to declare GMOs unacceptable in the proposed **National Organic Program**. The U.S. scientific community maintains that research shows GMOs to be safe and that the regulatory process for their commercial approval, which includes **USDA**, **Food and Drug Administration**, and the **Environmental Protection Agency**, is an adequate safeguard against any potential problems.

Genome — All the genetic material in the chromosomes of a particular organism. **USDA's** research agencies have a Plant Genome Mapping Program to identify, characterize, and map the position of agriculturally important genes on the chromosomes of plants grown as crops or trees in order to better use these genes for improving the characteristics of the plant (resistance to disease, higher yields, etc.) through breeding.

Geographic Information System (GIS) — Computerized systems used to compile, retrieve, analyze, and display spatially referenced data. Farming activities that utilize GIS typically include harvesting, fertilizing, pest control, seeding, and irrigation. Use of GIS is called **precision farming**.

Germicide — Any compound that kills disease-causing microorganisms. Germicides must be registered by the **Environmental Protection Agency** as pesticides.

Gilt — See **barrows and gilts**.

GIPSA — **Grain Inspection, Packers & Stockyards Administration**.

GIS — **Geographic information systems**.

Gleaning — Collecting unharvested crops from fields or obtaining unused agricultural products from farmers, processors, or retailers, usually for distribution to food banks and charitable feeding organizations.

Global Positioning System (GPS) — A network of satellites that can be used by ground-based units to precisely determine their location by latitude and longitude. GPS is part of the infrastructure required to operate **geographic information systems** that are used to practice **precision farming**.

GMA — Grocery Manufacturers of America.

GMO — **Genetically modified organism**

GMP — **Good manufacturing practices**.

Good manufacturing practices (GMPs) — Standards published in the **Code of Federal Regulations** and used by the **Food and Drug Administration** to ensure the quality of marketed products and that products are produced under sanitary conditions. Any FDA-regulated product can be designated **adulterated** if the manufacturing methods or facilities for

processing do not conform with GMPs. GMPs are developed through a consultative process between the FDA and the affected industry.

Good samaritan laws — With respect to food and agriculture programs, these laws are designed to encourage the donation of food and grocery products to nonprofit organizations serving the needy by minimizing the risks of legal actions against donors and distributors of the foods. The **Model Good Samaritan Food Donation Act** was amended and revised in 1996 and renamed the **Bill Emerson Good Samaritan Act (P.L. 104-210)** in memory of the late Congressman who sponsored and championed Good Samaritan laws. It excludes from civil or criminal liability a person or nonprofit food organization that, in good faith, donates or distributes donated foods for food relief. Protection does not apply to an injury or death resulting from gross neglect or intentional misconduct and does not supersede state or local health regulations.

Government Performance and Results Act (GPRA) — This 1993 law (P.L. 103-62) requires most federal agencies, including **USDA**, to develop and adhere to new planning, evaluation, and reporting requirements, such as mission statements, 6-year strategic plans, annual performance plans, and annual performance reports. These documents must include explicit goals and objectives, descriptions of how they will be achieved, and establishment of measurable performance indicators to determine success, among other things. Because GPRA requirements must be tied closely to annual budgeting, and because some in Congress have made oversight of the Act a high priority, USDA and its agencies have devoted considerable time and resources to implementation.

GPCP — Great Plains Conservation Program.

GPRA — Government Performance and Results Act.

GPS — Global Positioning System (see **precision farming**).

Grade A milk — Milk produced under sufficiently sanitary conditions to qualify for fluid (beverage) consumption. Also referred to as fluid grade milk. Only Grade A milk is regulated under federal **milk marketing orders**. Grade B milk (also referred to as manufacturing grade) does not meet fluid grade standards and is used only in manufactured products. More than 90% of all milk produced nationally is Grade A. Therefore, much of the Grade A milk supply is used in manufactured dairy products.

Grade A Pasteurized Milk Ordinance — Minimum standards and requirements for Grade A milk production and processing are outlined in the Grade A Pasturized Milk Ordinance (PMO) published by the **Food and Drug Administration**. Grade A standards are recommended by the National Conference on Interstate Milk Shipments (NCIMS), which is comprised of voting representatives from state and local regulatory agencies, and non-voting representatives of the dairy industry and FDA. As a general rule, FDA accepts the Conference recommendations and incorporates them into the revised PMO. The state regulator (which is usually either the State Department of Agriculture or the State Health Department) adopts the PMO standards as a minimum, and in many cases requires more stringent standards.

Grades and standards — The segregation, or classification, of agricultural commodities into groupings that share common characteristics. Grades provide a common “trading language,” or common reference, so that buyers and sellers can more easily determine the quality (and therefore value) of those commodities. Two **USDA** agencies—the **Agricultural Marketing Service** and **Grain Inspection, Packers, and Stockyards Administration**—serve as objective sources for this information. These agencies develop common grades and standards and conduct inspection and grading services for most food and farm products, and industry pays for most of the cost through **user fees**.

Grading certificates — A formal document setting forth the quality of a commodity as determined by authorized inspectors or graders.

Grain Inspection, Packers and Stockyards Administration (GIPSA) — An agency established in 1994 that combines the Federal Grain Inspection Service (FGIS) and the Packers and Stockyards Administration (P&S). FGIS provides grain marketing standards and an official inspection system. P&S programs are regulatory in nature to protect livestock producers by ensuring open and competitive markets.

Grain reserve — A phrase that might refer to the **food security commodity reserve**, **food security wheat reserve**, the **farmer-owned grain reserve**, or the **strategic grain reserve**.

Grain Standards Act of 1916 — See **United States Grain Standards Act of 1916**.

Grains Trade Convention (GTC) — See **International Grains Agreement**.

Grange — The Order of the Patrons of Husbandry.

Granger-Thye Act of 1950 — P.L. 81-478 (April 24, 1950) established a new direction for some aspects of National Forest System management; authorized the use of grazing fee receipts for rangeland improvement; authorized the **Forest Service** to issue grazing permits for terms up to 10 years; authorized to the Forest Service to participate in funding cooperative forestry and rangeland resource improvements; established grazing advisory boards; and, authorized the Forest Service to assist with work on private forestlands.

GRAS — **Generally recognized as safe**.

Grassed waterway — A generally broad and shallow depression planted with erosion-resistant grasses, which is used to convey surface waters off of or across cropland.

Grazing district — An administrative unit of BLM-managed **rangelands** established by the Secretary of the Interior under Section 3 of the **Taylor Grazing Act of 1934**.

Grazing fee — A charge, usually on a monthly basis, for grazing a specific kind of livestock. For federal lands, the grazing fee is based on a formula found in the **Public Rangelands Improvement Act (PRIA)**. The federal grazing fee is equal to a base fee of [$\$1.23 \times$ the **Forage Value Index (FVI)**] + [the **Beef Price Index (BPI)**] - [the **Prices Paid Index (PPI)**] \div [100] and is charged per **animal unit month**.

Grazing Lands Conservation Initiative (GLCI) — A program started by **USDA** under its discretionary authority in 1991 and then specifically authorized by the **FAIR Act of 1996** to provide increased technical and educational assistance to conserve and enhance private grazing lands. More than 60% of these grazing lands are considered to have serious environmental problems that could lessen their productive capacity if corrective actions are not taken. The **FAIR Act of 1996** authorized funding at \$20 million the first year, increasing to \$60 million in the third year.

Grazing permit/license/lease — Official written permission to graze a specific number, kind, and class of livestock for a specified time period on defined federal **rangeland**.

Grazing preference — The status of qualified holders of **grazing permits** acquired by grant, prior use, or purchase, that entitles them to special consideration over applicants who have not acquired preference.

Grazing privilege — The benefit or advantage enjoyed by a person or company beyond the common advantage of other citizens to graze livestock on federal lands. Privilege may be created by permit, license, lease, or agreement.

Great Plains Conservation Program (GPCP) — This program, initiated in 1957, provided cost share and technical assistance to apply conservation on entire farms in 10 Great Plains states from the Dakotas and Montana to Texas and New Mexico. Contracts were limited to \$35,000. At the end of 1995, over 6,800 farms in 558 counties with 20 million acres were participating. It was replaced by the **Environmental Quality Incentives Program** in the **FAIR Act of 1996**.

Green box policies — Domestic or trade policies that are deemed to be minimally trade-distorting and that are excluded from reduction commitments in the **Uruguay Round** Agreement on Agriculture. Examples are domestic policies dealing with research, extension, inspection and grading, environmental and conservation programs, disaster relief, crop insurance, domestic food assistance, food security stocks, structural adjustment programs, and direct payments not linked to production. Trade measures or policies such as export market promotion (but not **export subsidies** or foreign food aid) are also exempt. See **blue box policies**.

Greenhouse effect — The hypothesized warming of the Earth's atmosphere as a result of increasing atmospheric levels of carbon dioxide and other gases that trap infrared radiation emitted from the earth's surface. While the increase in such gases is well documented, the effect on climate remains debatable. Estimates of the temperature effect range from zero to an increase of several degrees average global temperature by 2050; changes in temperature would affect rainfall patterns. Significant climate change would inevitably affect agricultural practices.

Gross domestic product (GDP) — Gross domestic product is a measure of the total production and consumption of goods and services in the United States. The Bureau of Economic Analysis constructs two complementary measures of GDP, one based on income and one based on expenditures. It is measured on the product side by adding up the labor, capital, and tax costs of producing the output. On the expenditure side, GDP is measured by adding up expenditures by households, businesses, government and net foreign purchases. Theoretically, these two measures should be equal. However, due to problems collecting data, there is often a discrepancy between the two measures. The GDP price deflator is used to convert output measured at current prices into constant-dollar GDP.

Gross farm income — The monetary and non-monetary income received by farm operators. Its main components include cash receipts from the sale of farm products, government payments, other **farm income** (such as income from custom work), value of food and fuel produced and consumed on the same farm, rental value of farm dwellings, and change in value of year-end inventories of crops and livestock.

Gross processing margin (GPM) — This refers to the difference between the cost of a commodity and the combined sales income of the finished products that result from processing the commodity. Various industries have formulas to express the relationship of raw material costs to sales income from finished products.

Groundwater — The water from wells and underground aquifers. An estimated 95% of the drinking water used in rural areas is from groundwater. Because of its use as drinking water, there is concern over contamination from leaching agricultural and industrial pollutants or leaking **underground storage tanks**.

Group of Seven (G-7) — An international economic forum, established in 1975, for leaders of the seven largest industrial countries (France, the United States, the United Kingdom, Germany, Japan, Italy, and Canada). The focus of G-7 discussions has been coordination of macroeconomic policies and international trade and monetary policies.

Group Risk Income Protection (GRIP) — A county-based **revenue insurance** program, that is a variation of **Group Risk Protection (GRP)**. GRIP pays a participating producer when the county revenue per acre for an insured crop falls below a trigger revenue selected by the insured producer, regardless of the actual revenue level of the individual producer. It is available on a limited basis where GRP is currently available.

Group Risk Protection (GRP) — A form of **crop insurance** available in certain parts of the country that makes an indemnity payment to all participating crop farmers in a particular area when the entire county's crop production is a certain percentage below the normal production level of the county. This differs from the basic crop insurance program that makes payments to participating farmers when the individual farmer's own crop yield is less than the producer's normal yield.

Growing season — The time period, usually measured in days, between the last freeze in the spring and the first frost in the fall. Growing seasons vary depending on local climate and geography. It can also vary by crop, as different plants have different freezing thresholds. It also is an important component in defining wetland areas.

GSM — General Sales Manager.

GSM-102, Intermediate-Term Export Credit Guarantee Program. — An **Export Credit Guarantee Program** that covers credit terms up to 3 years. The program underwrites credit extended by the private banking sector to approved foreign banks using dollar-denominated, irrevocable letters of credit to pay for U.S.-grown food and agricultural products sold to foreign buyers. The **CCC** guarantee typically covers 98% of principal and a portion of interest.

GSM-103, Short-Term Export Credit Guarantee Program — An **Export Credit Guarantee Program** that covers credit terms up to 10 years. The program underwrites credit extended by the private banking sector to approved foreign banks using dollar-denominated, irrevocable letters of credit to pay for U.S.-grown food and agricultural products sold to foreign buyers. The **CCC** guarantee typically covers 98% of principal and a portion of interest.

GSM-5, Direct Export Credit Program — A federal export assistance program once operated by the **Foreign Agricultural Service**. Loans were made directly by the **Commodity Credit Corporation** at **USDA**-determined interest rates to foreign buyers of agricultural commodities. Through FY1980, government credit for agricultural exports was made available through the GSM-5 program. For budget austerity reasons, the program was replaced with federal **export credit guarantees** in FY1981. A more limited **blended credit** program was used in FY1983-85 that combined direct credit with guaranteed credits.

GSP — Generalized System of Preferences.

Guaranteed export credit — A **Commodity Credit Corporation** guarantee of commercial export credit is available through several **export credit guarantee programs**.

Gully erosion — Also called ephemeral gully **erosion**, this process occurs when water flows in narrow channels during or immediately after heavy rains or melting snow. A gully is sufficiently deep that it would not be routinely destroyed by tillage operations whereas rill erosion is smoothed by ordinary farm tillage. The narrow channels, or gullies, may be of considerable depth, ranging from 1 to 2 feet to as much as 75 to 100 feet. Gully erosion is not accounted for in the **universal soil loss equation**. In a few states gully erosion is substantial, but in most areas more soil is lost through **sheet erosion** and **rill erosion**.

Habitat — The place where a population (e.g., human, animal, plant, microorganism) lives, characterized by physical features (e.g., desert) and/or dominant plants (e.g., deciduous forest).

Habitat conservation plans (HCPs) — Plans prepared under the **Endangered Species Act**, by nonfederal parties wishing to obtain permits for incidental **taking** of threatened and **endangered species**. The number of HCPs has expanded enough in the last 5 years that there are concerns over cost, effectiveness, contributions to recovery, monitoring, and other issues.

HACCP — Hazard analysis and critical control point.

Handler — Generally, the first buyer of a farmer's commodity destined for fresh market use (in contrast to processing). Under **marketing orders**, handlers are defined as anyone who receives the commodity from producers, **grades** and packs it, and sells it to someone else for further marketing. Usually, the requirements spelled out in **marketing orders** technically apply to handlers, although producers absorb their effects.

Hardiness zones — See **plant hardiness zones**.

Harmonization — The process of establishment, recognition, and application of internationally recognized measures or standards. Used most often in reference to tariffs (as in the Harmonized Tariff Schedule of the United States (HTSUS)), technical standards, or **sanitary and phytosanitary measures** applied to imported food products.

Harmonized system — The international classification system for goods, implemented by most countries on January 1, 1998, which is used for tariff classification, trade statistics, and ultimately, transport documentation. Officially known as the Harmonized Commodity Description and Coding System, conversion was begun by the Customs Cooperation Council in 1970 as a replacement for the Customs Cooperation Council Nomenclature also known as the Brussels Tariff Nomenclature.

Harmonized Tariff Schedules of the United States (HTS, HTSUS) — This document, published and maintained by the U.S. **International Trade Commission**, provides the applicable tariff rates and statistical categories for all merchandise imported into the United States; it is based on the international **Harmonized System**, the global classification system that is used to describe most world trade in goods.

Hart-Scott-Rodino — The Hart-Scott-Rodino Antitrust Improvements Act of 1976 establishes a notification and review process that precedes mergers and acquisitions. Generally, large companies planning a merger or acquisition of another firm first must notify both the Department of Justice and Federal Trade Commission, and provide the two agencies with information (which must be kept confidential) that enables them to assess the likely competitive impacts. The agencies usually have 30 days to make this assessment. During this period, **USDA** — which has no authority to approve mergers — might be asked, or decide on its own, to contribute information if the proposed merger affects agriculture.

Harvested acres — The cropland actually harvested for a particular crop, usually somewhat smaller at the national level than planted acres due to weather damage or abandonment because of low market prices.

Hatch Act of 1887 — The permanent statute (24 Stat. 440) authorizing federal funds to **state agricultural experiment stations** affiliated with the **land grant colleges of agriculture**. Congress last amended the act in 1955, adding a formula that **USDA** uses to allocate the annual appropriation among the states. The formula provides for each state to receive what it received in 1955 as a base amount. Sums appropriated in excess of the 1955 level are distributed as follows: 20% is allotted equally to each state; 52% is allocated on the basis of a state's share of U.S. rural and farm population; a maximum of 25% is allocated to the states for research projects that involve more than one state; and 3% is reserved for administration. On average, **Hatch Act formula funds** constitute 10% of total funding for each experiment station.

Haying and grazing rules — Under previous commodity support law, farmers were permitted, for limited time periods (usually during droughts) and under specific circumstances, to harvest hay or graze cattle on land idled under **acreage reduction programs**. These rules were eliminated by the **FAIR Act of 1996**.

Hazard analysis and critical control point (HACCP) — A production quality control system now being adopted throughout much of the food industry as a method for minimizing the entry of **food borne pathogens** into the food supply in order to protect human health. Under a HACCP system, potential hazards are identified and risks are analyzed in each phase of production; **critical control points** for preventing such hazards are identified and constantly monitored; and corrective actions are taken when necessary. Record keeping and verification procedures are used to ensure that the system is working. HACCP

is one of the major elements of regulations, issued by **USDA** in July 1996 to control pathogens in meat and poultry products. Under the rules, all meat and poultry slaughter and processing plants with 500 or more employees had to develop and implement, by January 1998, a USDA-approved HACCP plan for each of their processes and products. Plants with 10 to 500 employees had until January 1999 to comply, and plants with less than 10 employees have until January 2000, to implement HACCP. Under separate rules issued by the **Food and Drug Administration** on December 5, 1995, seafood processors and importers also were required to implement HACCP plans and be in full compliance by December 1997.

HAZMAT — Hazardous materials.

HCP — **Habitat conservation plan.**

Head month — A month's use and occupancy of **rangeland** by a single animal or equivalent. A full head month's fee is charged for each month of grazing by adult animals if the grazing animal (1) is weaned, (2) is 6 months old or older when entering National Forest System land, or (3) will become 12 months old during the period of use. For fee purposes, a head month is equivalent to one **animal unit month**.

Headwaters — The source, or upper part, of a stream. Often used in discussing water rights related to wilderness or other federal land designations.

Healthy Meals for Healthy Americans Act of 1994 — P.L. 103-448 (November 2, 1994) Amendments reauthorizing several expiring programs under the **National School Lunch Act** and **Child Nutrition Amendments of 1966** through FY1998. Required that federally subsidized meal programs conform their meal requirements to the Dietary Guidelines for Americans, made the **nutrition education and training (NET) program** an entitlement, and made other changes to the WIC program expanding program outreach and coordination. Superseded by **William F. Goodling Child Nutrition Reauthorization Act of 1998** (P.L. 105-336).

Hectare (ha) — A metric measure of area equal to 10,000 square meters. One hectare=2.47 acres. One acre=0.405 hectares. See **acre**.

Hedging — Taking a position in a futures market opposite to a position held in the **cash market** to minimize the risk of financial loss from an adverse price change; a purchase or sale of **futures contract** as a temporary substitute for a cash transaction that will occur later (i.e., **long** hedge and **short** hedge). Hedgers use the futures markets to protect their business from adverse price changes.

HEL — **Highly-erodible land.**

Herbicide — Any **pesticide** used to destroy or inhibit plant growth; a weed killer.

HHS — Department of Health and Human Services.

High-fructose corn syrup (HFCS) — Produced from converting to fructose a portion of naturally occurring glucose in starch produced from corn. A natural sweetener, HFCS production expanded during the 1980s as a substitute for higher-cost sugar used in soft drinks. HFCS-55 (55% fructose), which is as sweet as sugar, has almost completely replaced liquid sugar in beverages. HFCS-42 (42% fructose) is roughly 90% as sweet as sugar, and is mainly used in cereal, baking, dairy, and processed foods. HFCS and two other corn-derived sweeteners (glucose syrup and dextrose) accounted for approximately 55% of total U.S. natural (caloric) sweetener use in recent years.

High moisture feed grains — Corn and grain sorghum must have moisture content below CCC standards in order to qualify for **marketing assistance loans**. However, the **FAIR Act of 1996** makes **recourse loans** available to producers of corn and grain sorghum that have higher moisture content.

High value products (HVP) — Agricultural products that are high in value, often but not necessarily due to processing. HVPs can be divided into three groups: 1) semi-processed products, such as fresh and frozen meats, flour, vegetable oils, roasted coffee, refined sugar; 2) highly processed products that are ready for the consumer, such as milk, cheese, wine, breakfast cereals; and 3) high-value unprocessed products that are also often consumer-ready, such as fresh and dried fruits and vegetables, eggs, and nuts. In recent years HVPs have accounted for a greater percentage than bulk commodities in total value of U.S. agricultural exports.

Highly erodible land (HEL) — Land that is very susceptible to **erosion**, including fields that have at least 1/3 or 50 acres of soils with a natural erosion potential of at least 8 times their **T value**. More than 140 million acres are classified as HEL. Farms cropping highly erodible land and under **production flexibility contracts** must be in compliance with a **conservation plan** that protects this cropland.

HNI — Human Nutrition Institute.

Hog/corn ratio (corn-hog ratio) — Number of bushels of corn equal in value to 100 pounds of live hogs (**feed ratio**). Put another way, the price of hogs, per hundredweight, divided by the price of corn per bushel. Since corn is a major input cost to hog producers, the higher the price of hogs relative to corn, the more profit there is in feeding hogs.

Holding pond — A pond or reservoir, usually made of earth, built to store polluted runoff.

Homestead protection — When a **USDA** farm loan borrower lacks the financial resources to make payments on a delinquent loan, is ineligible for a restructured loan, and is unable to buy out the loan at the net recovery value of the collateral property, the borrower can convey the property to USDA in lieu of loan payments. Until eliminated by the **FAIR Act of 1996**, the borrower may have been eligible for homestead protection, whereby the borrower could lease and/or purchase the residence and up to 10 acres of adjoining land.

Honey program — **Non-recourse** marketing loans had long been available to support honey prices until FY1994, when the funding was suspended by provisions in annual appropriations legislation. The **FACT Act of 1990** had set honey loan rates at 53.8 cents per pound and permitted deficiency payments. The 1996 **FAIR Act** repealed the statutory authority for the honey program. A **Honey Recourse Loan Program** was made available the 1998 crop only through broader emergency spending authority in the FY1999 agriculture appropriations act (P.L. 105-277, October 21, 1998).

Honey Recourse Loan Program — A program authorized by the emergency provisions of the FY1999 **USDA** appropriations act (P.L. 105-277, October 21, 1998) that makes recourse loans based on a national average rate of \$0.56 per pound on 1998-crop honey. Final date to obtain a loan was May 7, 1999. The producer-owned honey must be merchantable and stored in acceptable containers. Loans carry an administrative fee of \$0.009 per pound, bear an interest rate 1% higher than the **CCC** borrowing interest rate, and mature not later than 9 months following disbursement. The program is administered by the **Farm Service Agency**.

Horse Protection Act — P.L. 91-540 (December 9, 1970), as amended, makes it a crime to exhibit, or transport for the purpose of exhibiting, any “sored” horse, which is one whose feet have been injured deliberately to accentuate the animal’s gait.

APHIS enforces the law, which covers all breeds, although Tennessee Walking Horses are the most frequent subjects of this procedure.

Horticultural specialty crops — The Census of Agriculture includes as “horticultural specialties” bedding plants, florists’ greens, flower and vegetable seeds, flowers, foliage, fruit stocks, nursery and ornamental plants, shrubbery, sod, mushrooms, and vegetables grown under cover (e.g., in greenhouses).

Household (foodstamp) — A food stamp household is composed of all those who purchase food and prepare meals in common. All related co-residents must apply as a single food stamp household, no matter how they purchase and prepare food — except for elderly persons who are medically certified as unable to purchase and prepare meals separately. Other co-residents may apply separately if they purchase and prepare food separately, and residents in certain eligible institutional settings (e.g., shelters for battered women, residential drug treatment programs) may apply as separate households no matter how they purchase and prepare food.

Housing Act of 1949 — Title V of P.L. 81-171 (October 25, 1949) authorized **USDA** to make loans to farmers to construct, improve, repair, or replace dwellings and other farm buildings to provide decent, safe, and sanitary living conditions for themselves, their tenants, lessees, sharecroppers, and laborers. The USDA was authorized to make grants or combinations of loans and grants to farmers who could not qualify to repay the full amount of a loan, but who needed the funds to make the dwellings sanitary or to remove health hazards to the occupants or the community. Over time, the Act has been amended to authorize housing loans and grants to rural residents in general and these are administered by the **Rural Housing Service (RHS)**. The rural housing programs are generally referred to by the section number under which they are authorized in the **Housing Act of 1949**, as amended.

HSI — Habitat suitability index.

HSUS — Humane Society of the United States.

HTS, HTSUS — **Harmonized Tariff Schedule of the United States**.

Hundredweight — One hundred pounds (abbreviated as cwt.). A standard unit of measure for milk, rice, and some meat livestock.

Hunger / Food insecurity — An economic definition is the lack of food due to the limited or uncertain availability of nutritionally adequate and safe foods, or limited or uncertain ability to acquire acceptable foods in socially acceptable ways. The **USDA**, in 1997, estimated that about 12% of US households suffer from food insecurity.

Hunger Prevention Act of 1988 — P.L. 100-435 (September 19, 1988) amended the **Temporary Emergency Food Assistance Act of 1983** to require the **USDA** to make additional types of commodities available for the Temporary Emergency Food Assistance Program (**TEFAP**), to improve the **child nutrition** and **food stamp** programs, and to provide other hunger relief.

HVP — **High value products**.

Hydric soil — Soil that, in its undrained state, is flooded long enough during a growing season to develop anaerobic conditions that support the growth and regeneration of hydrophytic vegetation (plants specialized to grow in water or in soil too waterlogged for most plants to survive). This term is part of the legal definition of a wetland included in the **Food Security Act of 1985**. The **Natural Resources Conservation Service** maintains a national list of hydric soils.

Hydroponics — The growing of plants without soil by using an inert medium such as sand, peat, or vermiculite and adding a nutrient solution containing all the essential elements needed by the plant for its normal growth and development. Water culture, when plant roots are suspended in a liquid medium containing the nutrient solution while their crowns are supported in a thin

layer of inert medium, is true hydroponics. Often called soilless culture, it also includes aeroponics where plant roots are suspended in a dark chamber and sprayed with the nutrient solution.

Hypoxia — A low oxygen condition in the water that may occur where a nutrient-laden free-flowing body of water (like a river) enters a lake or ocean. The high nutrient content promotes rapid growth of plankton/phytoplankton that subsequently die and, in the process, consume large amounts of oxygen (see **biochemical oxygen demand**). While fish and shrimp can migrate away from a hypoxic area, less mobile bottom-dwelling organisms are unable to escape. A Mississippi River/Gulf of Mexico Watershed Nutrient Talk Force under the leadership of the **Environmental Protection Agency** (comprised of representatives from the scientific, economic, ecological and agricultural communities) is investigating the recurring and increasingly large hypoxia problem at the mouth of the Mississippi River. Currently, scientists believe nitrogen making its way into tributaries that flow into the Mississippi River, and eventually the Gulf of Mexico, causes the hypoxia condition.

Hypoxie zone — An area in the Gulf of Mexico off the mouth of the Mississippi River covering about 6,000 square miles where there is not enough oxygen to support fish and shellfish populations. The oxygen depletion is caused by an excessive amount of nutrients that are brought together from throughout the Mississippi River **watershed**. Many of these nutrients are believed to originate from agricultural activities, and the largest portion, over 30%, has been traced to the upper Mississippi drainage, according to research prepared by the U.S. Geological Survey.

H-2A — Refers to the provision in federal immigration law under which aliens can be granted temporary visas to enter the country for work in agriculture. Farm lobbyists have sought revisions in the H2A program, which they contend is too restrictive, to make it easier for them to employ temporary foreign workers.

IBA — Independent Bakers Association.

ICAC — International Cotton Advisory Committee.

ICBA — Independent Community Bankers Association.

ICM — Integrated crop management.

ICO — International Coffee Organization.

Identity preserved (IP) — This is the designation given to **bulk commodities** marketed in a manner that isolates and preserves the identity of a shipment, presumably because of unique characteristics that have value otherwise lost through commingling during normal storage, handling and shipping procedures.

IDFA — International Dairy Foods Association.

IFAD — International Fund for Agricultural Development.

IFIC — International Food Information Council.

IFT — Institute of Food Technologists.

IGC — **International Grains Council**.

IJO — International Jute Organization.

Import fee — Generally, an import fee is a charge assessed for a service rendered. For example, when an import stamp or **import license** is issued, the government assesses a fee for this service. Within the context of **Section 22** of the

Agricultural Adjustment Act of 1935, “fees” were imposed on imports of agricultural products when deemed necessary to protect domestic **farm programs**. Then, under the **North American Free Trade Agreement** (starting in 1994) and the **Uruguay Round** Agreement on Agriculture (starting in 1995), Section 22 import fees and quotas were converted into **tariff-rate quotas**.

Import license — A document required and issued by some national governments authorizing the importation of specified goods into their respective countries. When used in a discriminatory manner, these licenses can become **nontariff trade barriers**.

Import quota — A trade barrier that sets the maximum quantity (**quantitative restriction**) or value of a commodity allowed to enter a country during a specified time period. The **Uruguay Round** Agreement on Agriculture requires the conversion of import quotas and other quantitative restrictions to **tariff-rate quotas** and/or **bound tariff rates**.

Incentive payments — Direct payments made to producers of wool and mohair, which were similar to **deficiency payments** made to producers of grains and cotton. The incentive payment rate was the percentage needed to bring the national average return to producers (the market price plus the incentive payment) up to the annually set national support price. Each producer’s direct payment was the payment rate times the market receipts. Producers with higher market receipts got larger support payments. This created an incentive to increase output and to improve quality. The **wool and mohair commodity programs** ended after the 1995 **marketing year** as required by P.L. 103-130.

Income insurance — A concept, similar to **revenue insurance**, that envisions an insurance program that would insure farm families a specified minimum annual income.

Income Protection (IP) — A form of **revenue insurance** that protects a grower of an insurable crop whenever low prices, low yields, or a combination of both causes revenue to fall below a guaranteed level selected by the producer.

Income support — Generally, programs providing direct, income-supplementing payments to farmers. Intended to protect farm income without affecting market prices. **Production flexibility contract** payments provide income support, not **price support**. The phrase also is used to characterize the nature of support provided to low-income families by various food assistance programs.

Indemnity payment — The payment that eligible producers receive if they realize a qualifying crop loss under **crop insurance**, **revenue insurance**, or any insurance program.

Industrial crops — Crops that primarily have industrial applications in contrast to food or livestock feed uses. Industrial uses account for a relatively small but a growing and potentially much larger share of the market for farm commodities. The **USDA** devotes a significant research effort to identifying and developing new industrial uses for crops; this effort is encouraged by the **Alternative Agricultural Research and Commercialization Corporation (AARC)**. Some of the industrial and experimental crops include: castor beans (lubricants, nylon, cosmetics); chia (cosmetics); crotalaria (fibers); cuphea (soap, surfactants); guar (food stiffeners, drilling muds, paper manufacturing); guayule (natural rubber and hypoallergenic latex products); hesperaloe (specialty pulp paper); kenaf (twine, fiberboard, carpet padding, newsprint); lesquerella (lubricants, cosmetics); meadowfoam (cosmetics, lubricants, water repellents); milkweed (insulated clothing, filler for comforters, nonwoven textiles) and plantago ovato (high fiber additive to laxatives). While corn is the primary feedstock for **ethanol**, it is not considered an industrial crop because nearly 95% of production goes to feed uses.

Industrialization — When used in agriculture, this term generally refers to the consolidation of farms into very large production units.

Inert ingredient — Pesticide components such as solvents, carriers, dispersants, and surfactants that are not active against target pests. Inert ingredients may be toxic and may be subject to testing under the **Federal Insecticide, Fungicide, and Rodenticide Act**.

Infant formula cost-containment — Refers to statutory provisions in the **Child Nutrition Act of 1966** that require state WIC agencies to solicit bids to infant formula companies for the sale of infant formula used in WIC food packages.

Infiltration — The downward entry of water into soil. Also called **percolation**. A high rate of infiltration means that soil moisture for crops will be higher. Many conservation practices, such as **conservation tillage**, reduce rates of runoff and increase infiltration rates.

Infoshare — **USDA** established this program in 1993 to merge and coordinate the business management and information technology (computer) activities of its agencies, particularly in the field, in order to support consolidation of field offices into one-stop **field service centers** for farmers and other USDA clients. However, the program, which initially had been budgeted at nearly \$3 billion, was terminated by early 1996 in the wake of critical reviews by USDA's Office of Inspector General, the General Accounting Office, and others, which found, among other things, that despite Infoshare, individual USDA agencies were continuing to buy their own computers, were not sharing information technology with each other, and were still not operating in a common computing environment. Infoshare has been replaced by another computer modernization initiative now being designed and coordinated by the Farm Service Agency.

INRO — International Natural Rubber Organization.

Insecticide — A **pesticide** used to kill, deter, or control insects.

Instream use — Water use taking place within the stream channel. Examples are hydroelectric power generation, navigation, fish propagation and use, and recreational activities. Often used in discussions concerning water allocation and/or water rights.

Integrated Farm Management Program (IFMP) — A program authorized by the **FACT Act of 1990** to assist producers in adopting resource-conserving crop rotations by protecting participants' **base acreage**, payment yields, and program payments. The program's goal was to enroll 3 to 5 million acres over 5 years. The **FAIR Act of 1996** replaced the IFMP with **production flexibility contracts** and a pilot **conservation farm option program**.

Integrated Pest Management (IPM) — A pest control strategy based on the determination of an economic threshold that indicates when a pest population is approaching the level at which control measures are necessary to prevent a decline in net returns. In principle, IPM is an ecologically based strategy that relies on natural mortality factors, such as natural enemies, weather, and crop management, and seeks control tactics that disrupt these factors as little as possible. Also, a **USDA/Environmental Protection Agency** program that aims to decrease pesticide applications by teaching farmers to use a variety of alternative control techniques to minimize pesticide use. These techniques include **biological controls**, genetic resistance, tillage, pruning, and others.

Integration — The combination (under the management of one firm) of two or more identical (horizontal) or successive (vertical) stages in the production or marketing process of a particular product. Generally the stages are capable of being operated as separate businesses. The firm that has management responsibility is called the integrator. The poultry industry, for example, is **vertically integrated** from production through processing and distribution. Diversification, on the other hand, is the production of two or more products by one firm or farmer.

Intermediate agricultural products — Generally refers to agricultural products that have a higher per-unit value than **bulk commodities**; they are often partly processed but not necessarily ready for the consumers. Examples might include soybean meal, wheat flour, vegetable oils, feeds and fodders, animal fats, hides and skins, live animals, and sweeteners such as sugars.

Applied to trade policy, intermediate products are one of three categories of agricultural products used by the **Foreign Agricultural Service** to report export and import data under its **BICO** system (the others are **bulk** and **consumer-oriented agricultural products**). The agricultural trade title (Title II) of the **FAIR Act of 1996** permits the Secretary of Agriculture to make available up to \$100 million annually of **Export Enhancement Program** funds for the sale of intermediate agricultural products.

Intermediate Export Credit Guarantee Program (GSM-103) — One of CCC's **export credit guarantee programs**. See **GSM-103**.

International commodity agreement — An undertaking by a group of countries to stabilize trade, supplies, and prices of a commodity for the benefit of participating countries. An agreement usually involves a consensus on quantities traded, prices, and stock management. For example, the United States was a party to the International Natural Rubber Agreement.

International Emergency Economic Powers Act (IEEPA) — Title II of P.L. 95-223 (October 28, 1977) grants the President authority to regulate a comprehensive range of commercial and financial transactions with another country in order to deal with a threat to the national security, foreign policy, or economy of the United States, if the President declares a national emergency. This has been the basis for economic sanctions since expiration of the **Export Administration Act**.

International Grains Agreement (IGA) — Replaced the International Wheat Agreement in 1995. The IGA comprises a Grains Trade Convention (GTC) and a Food Aid Convention (FAC). The IGA is administered by the International Grains Council (IGC), an intergovernmental forum for cooperation on wheat and coarse grain matters. The Grains Trade Convention provides for information-sharing, analysis and consultations on grain market and policy developments. Under the Food Aid Convention, donor countries pledge to provide annually specified amounts of food aid to **developing countries** in the form of grain suitable for human consumption, or cash to buy suitable grains in recipient countries. The International Grains Agreement does not contain any mechanisms for stabilizing supplies, prices, or trade.

International Grains Council (IGC) — An intergovernmental forum responsible for administering the **International Grains Agreement (IGA)**.

International Monetary Fund (IMF) — A multilateral financial institution established in 1945 to help member countries with international payments problems and to maintain orderly exchange rate policies. U.S. agricultural exports benefit indirectly from activities of the IMF that maintain the global trade in commodities and food.

International Trade Commission (ITC) — An independent, quasi-judicial federal agency that provides objective trade expertise to both the legislative and executive branches of government and determines the impact of imports on U.S. industries. It makes recommendations concerning **countervailing duty** and **antidumping** petitions submitted by U.S. industries seeking relief from imports that benefit from unfair trade practices. The agency also updates and publishes the **Harmonized Tariff Schedule of the United States**. Established by Congress in 1916 as the U.S. Tariff Commission, the **Trade Act of 1974** changed its name to the U.S. International Trade Commission.

ITTO — International Tropical Timber Organization.

International Wheat Agreement (IWA) — Replaced in 1995 by the **International Grains Agreement**.

Interregional Project 4 — See **IR-4**.

Interstate Shellfish Sanitation Conference (ISSC) — The federal-state-industry cooperative body which manages the **National Shellfish Sanitation Program**.

Invasive species — Alien (non-native) species of plants, animals, and pests whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Executive Order 13112, issued February 8, 1999, seeks to prevent the introduction and minimize the impacts of invasive species through better federal agency coordination under a National Invasive Species Management Plan to be developed by an interagency Invasive Species Council. Examples of invasive species receiving recent attention include the Asian long-horned beetle, Africanized honeybees, zebra mussels, and the Formosan termite. **APHIS** carries out inspection and quarantine programs at U.S. ports of entry to prevent entry of invasive species. A number of laws are aimed at prevention and control, including among others the **Plant Quarantine Act**, the Animal Damage Control Act, the **Federal Seed Act**, the **Federal Plant Pest Act**, the **Federal Noxious Weed Act**, the Nonindigenous Aquatic Nuisance Prevention and Control Act, and the Alien Species Prevention and Enforcement Act.

IOOC — International Olive Oil Council.

IP — Income protection program (see **revenue insurance**).

IPM — **Integrated pest management**.

IR-4 — Inter-regional Project 4, also known as the Minor Crop Pest Management Program, is funded by **CSREES** to generate data to register **pesticides** and **biological pest control** agents for **minor crops** where there is no economic incentive to do so on the part of the pesticide manufacturing industry. IR-4 provides coordination, funding, and scientific guidance for both field and laboratory research to develop data for the **registration** by the **Environmental Protection Agency** of pest control products on a wide variety of commodities. The program has been responsible for data to support over 2,074 food use clearances (1,127 of which were obtained during the past ten years), 3,602 ornamental registrations and, has supported research on 26 **biopesticides** which resulted in 18 minor use registrations. Each year, about 40% of all EPA newly registered pesticides are the result of IR-4 activities.

IRIS — Instructional resources information system; integrated risk information system.

IRM — Integrated resource management.

Irradiation — The process of exposing food or other items to radiation of various wavelengths in order to destroy contamination from undesirable organisms, achieve insect disinfestation or delay maturation. It is approved for most produce and some meat products. Recently the **Food and Drug Administration** approved its use and **USDA** proposed rules for its use in red meat products. While it has been used for produce and chicken in the Southeast, its expanded use is dependent on the construction of facilities on a wide-spread basis. There are various types of irradiation treatments (gamma, x-ray and ultraviolet) with various characteristics and limitations to consider in building irradiation facilities.

Irrigation — Applying water (or wastewater) to land areas to supply the water (and sometimes nutrient) needs of plants. Techniques for irrigating include **furrow irrigation**, sprinkler irrigation, **trickle (or drip) irrigation**, and flooding. About 51 million acres of land are irrigated in the United States. More acres of corn are irrigated than any other crop, but only about 15% of the harvested acres. In contrast, irrigation is used for 100% of rice, 81% of orchards, 64% of vegetables, and 36% of cotton. About 40% of freshwater withdrawals in the nation are for irrigation, making agriculture the single largest user of water. Nearly 90% of all irrigation water withdrawals are in the western states, where in some areas competition for available supplies among uses, including base stream flow, has become controversial. **Consumptive use** as a percent of withdrawals is about 61% for irrigation.

Irrigation return flow — Part of artificially applied water that is not consumed by plants or evaporation, and that eventually “returns” to an aquifer or surface water body, such as a lake or stream. Commonly used when discussing water conservation techniques and measurement.

Irrigation water management — Managing irrigation applications based on the water-holding capacity of the soil and the need of the crop. The water is applied at a rate and in such a manner that the crop can use it efficiently and resource losses are minimized. Irrigation efficiency is the ratio of the amount of water stored in the crop root zone compared to the amount of water applied. Water conservation has become more important as costs have risen and demands have grown for wildlife and urban uses.

ISO — International Sugar Organization.

ISSC — Interstate Shellfish Sanitation Conference.

ITC — **International Trade Commission.**

IWA — **International Wheat Agreement.**

Joint Agricultural Weather Facility (JAWF) — Created in 1978, the facility is a cooperative effort between USDA's **World Agricultural Outlook Board** and the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce to collect, on an ongoing basis, global weather data and agricultural information to determine the impact of weather conditions on crop and livestock production. JAWF reports are followed closely not only by producers but also by commodity traders.

Jones Act — The common reference for Section 27 of the **Merchant Marine Act of 1920**, which requires that all water transportation of goods between U.S. ports be on U.S.- built, owned, crewed, and operated ships. The purpose of the law is to support the U.S. merchant marine industry, but agricultural interests generally oppose it because, they contend, it raises the cost of shipping their goods, making them less competitive with foreign sources.

JSA — Joint Subcommittee on Aquaculture.

Just-in-time delivery — An inventory control system that replenishes and delivers products to a retailer just as a current supply is depleted.

Karnal bunt — A fungus disease of wheat that reduces yields and causes an unpalatable but harmless flavor in flour milled from infected kernels. Appearance of the disease in the United States in early 1996 resulted in the **Animal and Plant Health Inspection Service** implementing an emergency quarantine, inspection, and certification program for wheat moving out of the infested areas, along with regulations on sanitizing machinery and storage facilities. Many foreign countries have a zero tolerance for karnal bunt in import shipments.

Killer gene — See **terminator seeds**.

LAA — Local administrative area.

Land capability (classification) — The quality of soil resources for agricultural use is commonly expressed as land capability classes and subclasses, which show, in a general way, the suitability of soils for most kinds of field crops. Soils are grouped according to their limitations when they are used to grow field crops, the risk of damage when they are used, and the way they respond to treatment. Capability classes, the broadest groups, are designated by Roman numerals I through VIII, with I being the best soils and VIII being the poorest.

Land evaluation and site assessment system (LESA) — A technique that can be used at the local level to determine the quality of land or agricultural uses and to assess sites or areas of land for their agricultural viability. It was first used in the early 1980s.

Land grant colleges of agriculture — The **Morrill Act of 1862** granted federal land to states to sell, and instructed each state to use the proceeds to endow a college to teach “agriculture and the mechanical arts.” States not having any federal land within their borders were given “land in scrip,” permitting them to sell federal land located in other (usually western) states in order to establish an agricultural college. The original schools are called the 1862 Institutions. Subsequently, the **Morrill Act of 1890** created the black colleges of agriculture, called the 1890 Institutions. The **Elementary and Secondary Education Reauthorization Act of 1994** gave land grant status to 29 Native American colleges, called the 1994 Institutions.

Land grant university — The term used to identify a public university in each state that was originally established as a **land grant college of agriculture** pursuant to the **Morrill Act of 1862**. In most states the original agricultural colleges grew over time into full-fledged public universities by adding other colleges (e.g., arts and sciences, medicine, law, etc.); in states where a public university existed prior to 1862, the first **Morrill Act** resulted in a college of agriculture being added to the university. **USDA** funds go only to the original land grant colleges of agriculture within the so-called land grant universities.

Land management services contracts — A proposed **national forest** timber sale contract where purchasers would be required to perform activities, other than those directly related to timber cutting and removal, in or near the sale area, in exchange for a reduction in the **stumpage price**. Pilot tests of this contract arrangement have been conducted, but its general use is not authorized.

Land treatment — Any activity or project to improve conservation of soil, water, or other resources and to improve production.

Land trust — A private nonprofit organization, under § 501 (c)(3) of the federal tax code, that may receive donations of money, property or development rights, and may use its assets to purchase property or development rights.

Land use and development controls — Ordinances, resolutions, and controls enacted by local government under the authority of state enabling legislation to protect public health, safety, or welfare. Many controls can affect agricultural enterprises; how they are affected depends on the design of the control.

Land use plan — A coordinated collection of data, programs, and activities related to existing and potential uses of land and resources within a defined area. Commonly associated with local units of government trying to anticipate and organize uses of space so as to meet defined goals. For producers, **conservation plans** are a type of land use plan.

LATS — Long-Term Agricultural Trade Strategy.

LD₅₀/lethal dose / LC₅₀/lethal concentration— The dose (median concentration) of a toxicant that will kill 50% of the test animals within a designated period. The lower the LC₅₀, the more toxic the compound. Testing to determine lethal dosages is used to characterize the acute toxicity of pesticides and other toxic chemicals.

LDCs — **Less developed countries.**

LDP — **Loan deficiency payment.**

Leaching — The process by which chemicals are dissolved and transported through the soil by **percolating** water. Pesticides and nutrients from fertilizers or manures may leach from fields, areas of spills, or feedlots and thereby enter surface water, groundwater, or soil. Leaching from concentrated sources such as waste sites and loading areas vulnerable to spills can be prevented by paving or containment with a liner of relatively impermeable material designed to keep leachate inside a treatment pond, landfill, or a tailings disposal area. Liner materials include plastic and dense clay.

Legumes — A family of plants, including many valuable food, forage and cover species, such as peas, beans, soybeans, peanuts, clovers, alfalfas, sweet clovers, lespedezas, vetches, and kudzu. Sometimes referred to as nitrogen-fixing plants, they

can convert nitrogen from the air to build up nitrogen in the soil. Legumes are an important rotation crop because of their nitrogen-fixing property.

LESA — Land evaluation and site assessment.

LDCs — Less developed countries. See **developing countries**.

Levy — The **USDA** defines levy as an import charge assessed by a country or group of countries not in accordance with a definite tariff schedule. The “variable import levy” of the European Community was an example. The EC’s levy on grains varied from day to day, depending on the offering price of third-country suppliers. In USDA’s view the variable import levy is a nontariff trade barrier because, unlike a moderate customs **duty** or even a quota, it can completely bar imports. The **Uruguay Round** Agreement on Agriculture resulted in the replacement of variable levies by fixed tariffs.

LIBOR — London interbank offered rate.

Limited global quota for upland cotton — A provision of the **Food and Agriculture Act of 1977** that authorizes the President to proclaim an import quota whenever the **USDA** determines that the spot market average price in any one month exceeds 130% of the previous 36-month average. If triggered by such a determination, the established quota allows for imports of up to 21 days of mill consumption during a 90-day period. Price conditions in the U.S. upland cotton market triggered this limited quota three times — twice in 1980, and once in 1987. A limited global quota cannot overlap with the step 3 quota, one of the **cotton competitiveness provisions**.

Linola — A new form of linseed known by the generic crop name Solin, which produces a high-quality edible polyunsaturated oil similar in composition to sunflower oil. It was developed and released in Australia in 1992 and first commercially grown in 1994. Linola is being produced in Australia, Canada, the U.K. and in the states of Washington and Idaho. Linola substitutes for flax in cropping rotations, is claimed to have lower production costs than canola, but brings prices comparable to canola or other edible oils. Linola is **Generally Recognized as Safe (GRAS)** by the **Food and Drug Administration**.

Linters — The short fibers that remain on cottonseed after ginning. They are used mainly for batting, mattress stuffing, and as a source of cellulose.

Listeria — *Listeria monocytogenes*, a pathogenic bacterium found widely in nature, can be carried in a variety of foods such as dairy products, red meat, poultry, seafood, and vegetables.

Live weight — The weight of live animals purchased or sold by a producer.

LOAEL — Lowest-observed-adverse-effect-level.

Loan deficiency payments — A commodity payment program authorized by the **Food Security Act of 1985** that makes direct payments, equivalent to **marketing loan** gains, to wheat, feed grain, upland cotton, rice, or oilseed producers who agree not to obtain **nonrecourse loans**, even though they are eligible. Loan deficiency payments are available under the **FAIR Act of 1996**.

Loan forfeiture — Under **commodity program** rules, a producer or processor who pledges a stored commodity as collateral to the **Commodity Credit Corporation** to obtain a nonrecourse loan can settle the repayment obligation by forfeiting the commodity without any penalty. This happens, by design, if forfeiture is more profitable than selling the commodity in the marketplace. In this way the loan program serves a **price support** function.

Loan forfeiture level, sugar — The lowest market price that a processor must receive before concluding that forfeiting pledged sugar to the **Commodity Credit Corporation** is more profitable than selling the sugar. In practice, **USDA** has

calculated the loan forfeiture level to be equal to the loan rate, *plus* transportation costs to a refinery (applicable only for raw cane sugar) *plus* interest expenses on a **nonrecourse loan** *minus* a sugar loan **forfeiture penalty**.

Loan rate — The price per unit (bushel, bale, pound, or hundredweight, depending on the commodity) at which the government will provide **nonrecourse** or **recourse** loans to farmers (or associations acting on their behalf). This short term financing at below market interest rates enables farmers to hold their commodities for later sale.

London interbank offered rate (LIBOR) — The interest rate that major international banks charge each other for large volume loans of Eurodollars (U.S. dollars on deposit outside of the United States).

Long — (1) One who has bought a **futures contract** or **option** to establish a market position; (2) a market position that obligates the holder to take delivery; (3) one who owns an inventory of commodities. The opposite of **short**.

Long ton — A measure of weight equal to 2,240 pounds. By contrast, a short ton is 2,000 pounds; a metric ton equals 2,204.62 pounds.

Low-flow irrigation systems — These systems (drip, trickle, and micro sprinklers) provide water in small volumes and generally provide water to plants with less waste than **furrow irrigation**. Drip and trickle systems apply water through small holes in small diameter tubes placed on or below the surface of the field. Another type of system, micro sprinklers, supplies water from low-volume sprinkler heads located above the surface. Low flow systems are expensive and their use is generally limited to high-value crops such as vegetables, fruits, and vineyards.

Lump-sum sales — A common term for **tree measurement sales**.

M-W price — **Minnesota-Wisconsin price**.

Mad cow disease — The common term used for **bovine spongiform encephalopathy** (BSE).

Major land resource area (MLRA) — Major land resource areas are geographically associated land resource units delineated by the **Natural Resources Conservation Service** and characterized by a particular pattern that combines soils, water, climate, vegetation, land use, and type of farming. There are 204 MLRAs in the United States, ranging in size from less than 500,000 acres to more than 60 million acres.

Make allowance (or milk manufacturing marketing adjustment) — The margin between the government support price for milk and the CCC's purchase price for butter, nonfat dry milk, and cheese. This margin is administratively set to cover the costs of "making" milk into butter, nonfat dry milk, or cheese to reach the desired level of prices for milk in manufacturing uses.

Mandatory price reporting — Currently, packers and processors are not required to report the prices they pay for the animals they buy from producers or the terms of sale. Rather, daily sales and price information is collected by **AMS** from companies on a voluntary basis. AMS reporters also attend live cash market sales (auctions) to collect price information. However, as more and more animals are sold under **formula pricing**, other **contract**, or **captive supply** arrangements, the open cash markets have become less helpful as benchmarks of prices being paid. Some producers believe that such arrangements also enable packers to more easily conceal potential anti-competitive practices, and argue that more transparency (i.e., more readily and widely available price and sales information) is needed in livestock markets. This has led to various legislative proposals for mandatory price reporting. Although the proposals have differed, most essentially would require packers to report, immediately and publicly, the prices they paid for animals, and the terms of the sale.

MAP — **Market Access Program**.

MARAD — Maritime Administration.

Margin — The amount of money or collateral deposited by a customer with a broker, by a broker with a clearing member, or by a clearing member with the clearinghouse, for the purpose of insuring against loss on open **futures contracts**. The margin is not partial payment on a purchase. (1) Initial margin is the total amount of margin per contract required by the broker when a futures position is opened; (2) maintenance margin is a sum that must be maintained on deposit at all times. If the equity in a customer's account drops to, or under, the level because of adverse price movement, the broker must issue a **margin call** to restore the customer's equity. Sometimes called a performance bond.

Margin call — (1) A request from a brokerage firm to a customer to bring **margin** deposits up to initial levels; (2) a request by the clearinghouse to a clearing member to make a deposit of original margin, or a daily or intra-day variation payment, because of adverse price movement, based on positions carried by the clearing member.

Mariculture — The form of **aquaculture** where fish, shellfish, or aquatic plants are cultured in a salt water environment.

Market Access Program (MAP) — MAP, previously called the **Market Promotion Program**, is administered by the **Foreign Agricultural Service** and uses funds from the **Commodity Credit Corporation**. It helps producers, exporters, private companies, and other trade organizations finance promotional activities for U.S. agricultural products. MAP is designed to encourage development, maintenance, and expansion of commercial agricultural export markets. Activities financed include consumer promotions, market research, technical assistance, and trade servicing. The **Export Incentive Program**, which is part of MAP, helps U.S. commercial entities conduct brand promotion activities including advertising, trade shows, in-store demonstrations, and trade seminars. MAP is authorized in Section 244 of the **FAIR Act of 1996**. The program promotes exports of specific U.S. commodities or products in specific markets. Under MAP, program participants are reimbursed for their expenses in carrying out approved promotional activities. Participating organizations include nonprofit trade associations, state regional trade groups, and private companies. Funding authority is limited to \$90 million annually for fiscal years 1996-2002.

Market allocation — A quantity provision in a fruit or vegetable **marketing order** specifying the maximum amount of the regulated commodity that can be sold for a given use or market (such as the domestic fresh market).

Market basket — Average quantities of consumables, including U.S. farm foods, purchased per household for a given base period, used to compute an index of retail prices.

Market loss payments — Term used in the **Omnibus Consolidated and Emergency Appropriations Act, FY1999** (P.L. 105-277, October 21, 1998), to describe the one-time \$3.1 billion in emergency income support payments authorized for eligible grain, cotton, and dairy farmers. The act states that such funds are to compensate farmers for the loss of 1998 income caused by “regional economic dislocation, unilateral trade sanctions, and the failure of the government to pursue trade opportunities aggressively.”

Market price — The price per bushel (or pound or hundredweight) of an agricultural commodity paid in the private sector. It can sometimes refer to the price paid at domestic seaports or large inland terminal markets (such as daily cash prices listed in newspapers) and sometimes refers to the **farm price**.

Market Promotion Program (MPP) — An export promotion program authorized by the **FACT Act of 1990** that replaced the Targeted Export Assistance (TEA) program authorized by the **Food Security Act of 1985**. The MPP was renamed the **Market Access Program (MAP)** under the **FAIR Act of 1996**.

Market structure — Characteristics of an industry that relate to its economic performance, such as the number of buyers and sellers, product differentiation among firms, barriers to entry, costs, degree of **integration**, and diversification.

Market transition payments — Referred to variously as AMTA payments, **contract payments**, or **production flexibility contract** payments made to farmers under Title I (the **Agriculture Market Transition Act** (AMTA)) of the **FAIR Act of 1996**.

Marketing assessments — Producers and first purchasers of some supported commodities are required to pay an **assessment** as a contribution toward achieving budget deficit reduction targets. Under the **FAIR Act of 1996**, assessments are imposed on sugar processors and on producers and first buyers of peanuts. Tobacco also is subject to deficit reduction assessments. The **FAIR Act of 1996** eliminated the milk marketing assessment.

Marketing assistance loans — **Nonrecourse loans** made available to producers of wheat, feed grains, upland and ELS cotton, rice, soybeans, and minor oilseeds under the **Agricultural Market Transition Act** provisions in the **FAIR Act of 1996**. The new law largely continues the commodity loan programs as they were under previous law. Loan rate caps are specified in the law. **Marketing loan repayment provisions** apply should market prices drop below the loan rates. For farmers who forego the use of marketing assistance loans, **loan deficiency payment** rules apply.

Marketing certificate — A **certificate** that may be redeemed for a specified amount of CCC-owned commodities. The certificates may be generic or for a specific commodity.

Marketing contract — Prices (or pricing mechanisms) are established for a commodity before harvest or before the commodity is ready for marketing. Most management decisions remain with the grower, who retains ownership of both production inputs and output until delivery. The farmer assumes the risks of production but shares price risks with the contractor. Marketing contracts are commonly used for crops and not livestock. According to the **USDA**, about 40% of the value of all fruits and vegetables produced in 1997 were under marketing contracts. Marketing contract shares for selected other commodities were: sugar beets, 82%; milk, 60%; cotton, 33%; cattle, 10%; soybeans, 9.4%; corn, 8%. See **production contract**.

Marketing loan repayment provisions — A loan settlement provision, first authorized by the **Food Security Act of 1985**, that allows producers to repay **nonrecourse loans** at less than the announced loan rates whenever the world price or loan repayment rate for the commodity is less than the loan rate. Marketing loan provisions became mandatory for soybeans and other oilseeds, upland cotton, and rice and were permitted for wheat, feed grains, and honey under amendments made by the **FACT Act of 1990**. The **FAIR Act of 1996** retains the marketing loan provisions for feed grains, wheat, rice, upland cotton, and oilseeds.

Marketing year — The 12-month period, generally from the beginning of a new harvest, over which a crop is marketed. For example, for wool, mohair, and Hawaiian sugarcane, the marketing year is January 1-December 31; for honey, it is April 1-March 31; for wheat, barley, and oats, it is June 1-May 31; for flue-cured tobacco, it is July 1-June 30; for cotton, peanuts, and rice, it is August 1-July 31; for sugar beets, it is September 1-August 31; for corn, sorghum, soybeans, mainland sugarcane, all tobacco but flue-cured, and milk, it is October 1-September 30. The crop marketing year beginning and ending dates are published by NASS in the Agricultural Prices annual summary. In contrast, the **crop year** is the calendar year of production.

Marketing orders and agreements — Orders and agreements (authorized by the **Agricultural Marketing Agreement Act of 1937**, as amended) allow producers to promote orderly marketing through collectively influencing the supply, demand, or price of a particular commodity so as to create orderly marketing. Research and promotion can be financed with pooled funds. Once approved by a required number of a commodity's producers—usually two-thirds—the marketing order is binding on all **handlers** of the commodity within the geographic area of regulation. It may limit the quantity of goods marketed, or establish the **grade**, size, maturity, or quality of the goods. Marketing orders have been established for milk, fruits, vegetables, and other commodities. Marketing agreements may contain more diversified provisions, but are enforceable only against those handlers who enter into the agreement. An order can be terminated when a majority of all producers favor its termination or

when **USDA** determines that the order no longer serves its intended purpose. See **market allocation, orderly marketing, prorate, reserve pool, shipping holiday, and specialty crops**.

Marketing quotas (or allotments) — Authorized by the **Agricultural Adjustment Act of 1938**, these quotas (sometimes called **poundage quotas**) limit marketings of certain commodities. The marketing quota, which must be approved by at least two-thirds of the eligible producers voting in a referendum, is intended to ensure an adequate and normal supply of the commodity, and ensure that production and supplies are not excessive. Growers who market in excess of their quotas pay penalties on the “excess” and are ineligible for government price-support loans. Quotas have been suspended for wheat, feed grains, and cotton since the 1960s. Rice quotas were abolished in 1981. Marketing quotas still are used in conjunction with the **tobacco program** and the **peanut program**. The authority for standby marketing allotments for domestically produced sugar and crystalline fructose mandated by the **FACT Act of 1990** was eliminated by the **FAIR Act of 1996**.

Marketing spread — See **farm to retail price spread**.

Maximum tolerated dose (MTD) — Loosely, the highest dose of a chemical that when administered to a group of test animals does not increase the death rate during a long-term study. The purpose of administering MTD is to determine whether long-term exposure to a chemical might lead to any adverse health effects in a population, when the level of exposure is not sufficient to cause premature mortality due to short-term toxic effects. The maximum dose is used, rather than a lower dose, to reduce the number of animals that need to be tested (and thus, the cost of animal testing), in order to detect an effect that occurs only rarely. This analysis is used in establishing chemical residue tolerances in foods.

mbf — Thousand board feet of timber or lumber.

MBTA — Migratory Bird Treaty Act.

McIntire-Stennis Act of 1962 — P.L. 87-788 (October 10, 1962) makes funding available to the **state agricultural experiment stations** and to forestry schools and programs at the **land grant colleges of agriculture** for forestry research. The research covers such areas as reforestation, woodlands and related **watershed** management, outdoor recreation, wildlife habitats and wood utilization. Many of the research projects are performed cooperatively with scientists at the laboratories of the **Forest Service**. McIntire-Stennis funds are distributed by a formula that allocates \$10,000 to each state, with 40% of the remainder being distributed according to a state’s share of the nation’s total commercial forest land, 40% according to the value of its timber cut annually, and 20% according to its state appropriation for forestry research.

MDM — Mechanically deboned meat.

Medfly — A shortened name for the Mediterranean fruit fly, a destructive pest of fruits and vegetables that is found throughout most of Central America. The **Animal and Plant Health Inspection Service** is involved in programs to keep the Medfly from spreading north into Mexico, where it could easily enter the United States on imported winter fruits and vegetables. Eradication efforts in California, Florida and Texas have prevented infestations from becoming established. Hawaii is infested with the Medfly and no eradication efforts currently are under way. Travelers returning to the continental United States from Hawaii or a foreign country are prohibited from bringing into the country fresh fruits, meats, plants, birds, and plant and animal products that may harbor pests or diseases.

Mega-reg — A term meaning a large set of regulations that some have used to describe the extensive new rules issued by **USDA** in July 1996 that are aimed at controlling pathogens in meat and poultry products, including mandatory **hazard analysis and critical control point (HACCP)** plans.

Memorandum of agreement (MOA) — An agreement between federal agencies, or divisions/units within an agency or department, or between federal and state agencies, which delineate tasks, jurisdiction, standard operating procedures or other

matters which the agencies or units are duly authorized and directed to conduct. Sometimes referred to as a memorandum of understanding (MOU).

Mercado Commun del Sur (MERCOSUR) — A **customs union** between Argentina, Brazil, Paraguay, and Uruguay, which came into effect on January 1, 1995. Chile and Bolivia have become associate members.

Merchant Marine Act of 1920 — P.L. 66-261, also known as the **Jones Act**, provides for the promotion and maintenance of a U.S. merchant marine. Provisions dealing with cabotage (i.e., coastal shipping) require that all goods transported by water between U.S. ports be carried in U.S.-flag ships, constructed in the United States, owned by U.S. citizens, and crewed wholly by U.S. citizens. In addition, amendments to the **Jones Act**, known as the **Cargo Preference Act**, provide permanent legislation for the transportation of waterborne cargoes in U.S.-flag vessels.

MERCOSUR — **Mercado Commun del Sur** (Southern Cone Common Market).

Methane — A gas created by anaerobic decomposition of organic compounds. Natural gas is composed mostly of methane. Methane is a so-called greenhouse gas (see **greenhouse effect**). Agricultural wastes, especially animal wastes, are a major source of methane releases to the atmosphere.

Methanol — A liquid alcohol (also known as methyl alcohol or wood alcohol), formed in the destructive distillation of wood or made synthetically, and used especially as an alternative fuel, a gasoline additive, a solvent, an antifreeze, or a denaturant for ethyl alcohol. As a gasoline additive it lowers the carbon monoxide emissions but increases hydrocarbon emissions.

Methyl bromide — A **fumigant** used for soil treatment, to control pests in postharvest storage, for killing pests on fruits, vegetables, and grain going into export trade, for plant quarantine treatment, and for fumigation of buildings. Because methyl bromide contributes to depletion of stratospheric **ozone**, it is subject to phase out requirements of the 1987 **Montreal Protocol on Ozone Depleting Substances** and of the **Clean Air Act (CAA)**. The Montreal Protocol and Vienna Adjustments require a complete phase out in industrialized countries by the year 2010, and a future freeze in developing country use. A 1998 amendment (P.L. 105-178, Title VI) conformed the Clean Air Act phase out date with that of the Montreal Protocol. All methyl bromide regulations so far exempt quarantine and pre-shipment treatment of agricultural commodities; however, this exemption is being reevaluated after completion of additional scientific assessments. Methyl bromide is regulated as a pesticide under the **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)**, as a hazardous substance under the **Resource Conservation and Recovery Act (RCRA)**, and is subject to reporting requirements under the **Emergency Planning and Community Right to Know Act (EPCRA)**.

Metric ton — Usually abbreviated mt. or MT, a metric ton is 2,204.62 pounds, compared to a short ton of 2,000 pounds. Generally, international agricultural trade data are cited in metric tons.

MFN — **Most-favored-nation**.

MIF — Milk Industry Foundation.

Migratory Bird Treaty Act of 1918 — P.L. 65-186 (July 3, 1918), as amended, regulates the taking of wild birds and implements the provisions of four different bilateral treaties for bird conservation (with Canada, Mexico, Japan, and Russia). Very few of its provisions affect farmers more than any other citizen, save when bird populations become pests. The act and the associated treaties allow taking of birds to prevent serious injury “to the agricultural or other interests in any particular community.” As implemented, the practice has been to use non-lethal methods where possible, especially for native species. The control of bird pests is managed by the **Animal and Plant Health Inspection Service**.

Milk equivalent — A measure of the quantity of fluid milk used in a processed dairy product, usually expressed on a milkfat basis. For example, one pound of cheese is the equivalent of 9.88 pounds of milk.

Milk-feed price ratio — A measure of the value of 16% protein ration (feed) to one pound of whole milk. As with the **hog-corn ratio**, this relationship is an indicator of the profitability of milk production.

Milk marketing orders — Administered by the Agricultural Marketing Service, federal milk marketing orders were first instituted in the 1930s to promote orderly marketing conditions by, among other things, applying a uniform system of **classified pricing** throughout the farm milk market. Federal milk marketing orders regulate handlers that sell milk or milk products within an order region, by requiring them to pay not less than an established minimum price for the Grade A milk they purchase from dairy producers, depending on how the milk is used. This classified pricing system requires **handlers** to pay a higher price for milk used for fluid consumption (Class I) than for milk used in manufactured dairy products such as yogurt, ice cream, cheese, butter and nonfat dry milk (Class II, Class III and Class III-A products). The **FAIR Act of 1996** requires **USDA** to consolidate the number of federal milk marketing orders into 10 to 14 regions, down from 32, by 1999.

Minnesota-Wisconsin price (M-W price) — A component of the **basic formula price** for farm milk used in federal **milk marketing orders**. It is a survey of the average price Minnesota and Wisconsin plants are paying farmers for Grade B milk to be used in processed dairy products.

Minimal nutritional value — Refers to foods that may not be sold in competition with the school lunch and breakfast programs. These are foods that **USDA** has determined contain little if any nutritional value. For example, sugar candy, soda pop without fruit juices, and chewing gum are considered to be foods of minimal nutritional value. Candy containing nuts or chocolate is considered to have some nutritional value.

Minimum access — In the **Uruguay Round** Agreement on Agriculture, countries are obliged to provide minimum levels of imports for products subject to **tariffication**. Access is assured by **tariff-rate quotas**.

Minimum tillage — The minimum soil manipulation necessary for crop production. **Conservation tillage**, **reduced tillage**, and **no-till** farming are related terms.

Minor crops — Crops that may be high in value but that are not widely grown. Many fruits, vegetables, and tree nuts come under this definition. The **IR-4** program is one publicly funded program to help producers of minor crops with their unique problems.

Minor oilseeds — **Oilseed crops** other than soybeans and peanuts; usually a reference to the other oilseeds eligible for **marketing assistance loans** under the **FAIR Act of 1996** (sunflower seed, canola, rapeseed, safflower, mustard seed, and flaxseed).

Mitigation bank, wetlands — A bank is created when wetlands at a site are restored, enhanced or created in advance of destruction of similar wetlands in nearby locations. The bank then sells “credits” in the bank to permit applicants under **Section 404** who are required, as a permit condition, to offset the negative impacts their project will have on wetlands. Banks may be established by public entities or private enterprise. The **FAIR Act of 1996** has a provision allowing **USDA** to establish a pilot banking program.

mmt — Million **metric tons**.

MOA — **Memorandum of agreement**.

Model Good Samaritan Food Donation Act — See **Bill Emerson Good Samaritan Act of 1996**.

Mohair Recourse Loan Program — A program authorized by the emergency provisions of the FY1999 **USDA** appropriations act (P.L. 105-277, October 21, 1998) that makes interest-free recourse loans of \$2.00 per pound on mohair

produced prior to October 1, 1998. Final date to obtain a loan is September 30, 1999. The producer-owned mohair used as loan security must be stored in approved bonded warehouses. Loans mature not later than 1 year following disbursement. The program is administered by the **Farm Service Agency**.

Monetization — A **P.L. 480** provision added by the **Food Security Act of 1985** that allows **private voluntary organizations** to sell a small percentage of donated P.L. 480 commodities within the recipient country. The currency generated by these sales can then be used for such purposes as defraying the cost of food distribution within the country.

Monoculture — A pattern of crop or tree production that relies on a single plant variety.

Montreal Protocol on Ozone Depleting Substances — An international agreement, to which the U.S. is a signatory, for controlling emissions of chemicals that deplete stratospheric **ozone** (including **methyl bromide**). The **Clean Air Act Amendments of 1990** contain provisions for implementing the Montreal Protocol, as well as explicit, separate authority for the **Environmental Protection Agency** to regulate ozone depleting chemicals.

Morbidity — Rate of disease incidence; an important measure in **epidemiological studies**.

Morrill Act of 1862 — Enacted July 2, 1862 (chapter 130, 12 Stat. 503), this law allocated federal land to each state and directed the states to sell the land and use the proceeds to establish a college dedicated to the agricultural and mechanical arts. States without federal lands within their borders received land in scrip, giving them the right to sell federal land located in other states. The act resulted in the establishment of the **land grant colleges of agriculture**. The purpose of the Act was not only to improve the economic and social welfare of farmers, but also to make higher education with a practical application generally available to all segments of U.S. society. The Act pertained only to the original establishment of the colleges of agriculture, and is not an authority under which the colleges currently receive federal funds.

Morrill Act of 1890 — Enacted August 30, 1890 (chapter 841, 26 Stat. 417), this law authorized additional direct appropriations for the **land grant colleges of agriculture** that had been established under the **Morrill Act of 1862**. The most significant feature of the second Morrill Act was that the 1862 schools could receive the additional funds only if they admitted blacks into their programs or if they provided separate but equal agricultural higher education to black students. In the period following the Civil War, sixteen southern states established separate land grant colleges of agriculture for black students under this Act; Congress designated Tuskegee University an 1890 institution at a later date. Federal funds for research and extension at the 1890 schools are provided under subsequent acts, not the second Morrill Act.

Most-favored-nation treatment (MFN) — A commitment that a country will extend to another country the lowest tariff rates it applies to any third country. MFN is a basic principle of the **General Agreement on Tariffs and Trade (GATT)** (1947). Almost all countries are effectively accorded permanent MFN status by the United States. However, Title IV of the **Trade Act of 1974** established conditions on U.S. MFN tariff treatment to certain non-market economies, one of which is certain freedom-of-emigration requirements (better known as the Jackson-Vanik amendment). The Act authorizes the President to waive a country's full compliance with Jackson-Vanik under specified conditions, and this must be renewed by June 3 of each year. Once the President does so, the waiver is automatic unless Congress passes (and sustains a Presidential veto of) a disapproval resolution. MFN status for China, which had been originally suspended in 1951, was restored in 1980 and has been continued in effect through subsequent annual Presidential extensions. Since the Tiananmen Square incident in 1989, however, the annual renewal of China's MFN status has been a source of considerable debate in the Congress. Several Members have sought through legislation to terminate China's MFN status or to impose additional conditions relating to improvements in China's actions on various trade and nontrade issues. Agricultural interests generally have opposed attempts to block MFN renewal for China, contending that several billion dollars annually in current and future U.S. agricultural exports could be jeopardized if that country retaliated.

MOU — Memorandum of understanding (see **memorandum of agreement**).

MPP — Market Promotion Program.

MRL — Maximum-residue limit (see **registration** and **pesticide**).

MTD — **Maximum tolerated dose.**

MTN — **Multilateral trade negotiations.**

Mulch — A natural or artificial layer of plant residue or other material on the soil surface. Mulch reduces **erosion**, conserves soil moisture, inhibits weed growth, and can provide the soil with organic matter as it breaks down. Mulch till prepares the soil so as to leave plant residues (or other mulching materials) on or near the surface.

Multilateral agreement — A trade agreement involving three or more countries (as with the **World Trade Organization**) in contrast to a **bilateral agreement** (as with the US-Canada Free Trade agreement) involving only two countries.

Multilateral trade negotiations (MTN) — Negotiations between **General Agreement on Tariffs and Trade (GATT)** member nations that are conducted under the auspices of the GATT and that are aimed at reducing **tariff** and **nontariff trade barriers**. The **World Trade Organization** has now replaced the GATT as the administrative body.

Multiple basing points — A method of regional pricing in **milk marketing orders** that would allow more than one **basing point**, or “surplus area,” to be used. Surplus areas are administratively defined as areas with low Class I utilization, meaning that a relatively small percentage of the milk produced in an area is used in that area as Class I (fluid) milk. In a **multiple basing point** system, the order used as the basing point has the smallest **Class I differential** (the difference between the Class I price and the Class III price). The Class I differential for other orders is then based on transportation costs to the nearest basing point plus the minimum differential.

Multiple component pricing — The practice of valuing farm milk according to the value of its protein, fat, and mineral content. This practice has been adopted by many regions for federal **milk marketing orders**. Historically, milk was priced solely on the basis of fat content.

Multiple use — According to the **Multiple Use and Sustained Yield Act of 1960** (P.L. 86-517, June 12, 1960), as amended, multiple use of the national forests means the “harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.” Multiple use implies a **sustained yield** of outdoor recreation, range, timber, **watershed**, and wildlife and fish values.

MUSY — **Multiple Use and Sustained Yield Act of 1960** (P.L. 86-517, June 12, 1960).

Mutagen — An agent that causes a permanent genetic change in a cell other than that which occurs during normal growth. Testing to determine mutagenicity is one component of assessing the potential **chronic toxicity** of pesticides and other chemicals.

Mutual self-help housing — A program to assist groups of low-income families in building their own homes. Each family is expected to contribute at least 700 hours of labor in building homes for each other. Participating families generally have low income and are unable to pay for homes built by the contract method. The homes are generally financed by **Section 502 loans**.

Mycotoxins — Toxic substances produced by fungi or molds on agricultural crops that may cause sickness in animals or humans that eat feed or food made from contaminated crops. There are between 300 and 400 known mycotoxins, but of most

concern, based on toxicity and occurrence, are **aflatoxin**, **vomitoxin**, zearalenone, funonisin, T-2 toxin, and T-2-like toxins (trichothecenes). **GIPSA** currently measures for aflatoxin in all exports shipments of corn, and measures for aflatoxin and vomitoxin on a voluntary basis in domestic shipments.

NAA — National Aquaculture Act of 1980.

NACD — National Association of Conservation Districts.

NACMCF — National Advisory Committee on Microbiological Criteria for Foods.

NACO — National Association of Counties.

NAD — National Appeals Division.

NADA — New animal drug applications.

NAEGA — North American Export Grain Association.

NAFTA — North American Free Trade Agreement.

NAHMS — National Animal Health Monitoring System.

NAICS — North American Industry Classification System (replaces standard industrial classification (SIC)).

NAL — National Agricultural Library.

NAP — Noninsured Assistance Payments.

NARC&DC — National Association of Resource Conservation and Development Councils.

NAS — National Academy of Sciences.

NASDA — National Association of State Departments of Agriculture.

NASS — National Agricultural Statistics Service.

NASULGC — National Association of State Universities and Land Grant Colleges.

National Academy of Sciences (NAS) — An institution created by Congress in 1863 to provide science-based advice to the government. The sister organizations associated with the Academy are the National Academy of Engineers, Institute of Medicine, and the National Research Council. The Academies and the Institute are honorary societies that elect new members to their ranks each year. The bulk of the institutions' science-policy and technical work is conducted by the National Research Council (NRC), created expressly for that purpose. The NRC's Board on Agriculture addresses issues confronting agriculture, food, and related environmental topics.

National Agricultural Library (NAL) — A national depository of scientific and popular agricultural information located at the **Agricultural Research Service's** research center in Beltsville, Maryland. NAL's administration was merged with ARS in 1994.

National Agricultural Research, Extension, and Teaching Policy Act — Title XIV of **Food and Agriculture Act of 1977** made **USDA** the leading federal agency for agricultural research, extension, and teaching programs. It also consolidated the funding for these programs.

National Agricultural Research, Extension, Education, and Economics Advisory Board — A 30-member board established by the **FAIR Act of 1996** to replace three previous advisory committees. The Board advises **USDA** on national priorities and policies related to agricultural research, extension, and education.

National Agricultural Statistics Service (NASS) — A **USDA** agency that collects and publishes statistics on the U.S. food and fiber system, with offices located in each state’s department of agriculture.

National Ambient Air Quality Standards (NAAQS) — National standards set by the **Environmental Protection Agency** under authority of the **Clean Air Act**; NAAQS define the maximum allowable concentrations of specified air pollutants in outdoor (ambient) air. NAAQS have been set for carbon monoxide, **particulate matter**, sulfur oxides, nitrogen dioxide, lead, and **ozone**. “Primary” NAAQS protect human health, with a margin of safety; “secondary” NAAQS protect human welfare, which includes effects on soils, water, crops, vegetation, materials, etc.

National Appeals Division (NAD) — The National Appeals Division of **USDA** was established by the **Department of Agriculture Reorganization Act of 1994** (Title II of P.L. 103-354) to consolidate and improve the hearing procedures for USDA claims and disputes. The statute and regulations provide that certain sections of the **Administrative Procedure Act (APA)**, including the hearing requirements, do not apply to NAD proceedings. The NAD procedures govern informal and formal hearings covering appeals of decisions made by the rural development agencies, **Natural Resources Conservation Service**, **Risk Management Agency**, and the **Farm Service Agency**. The statute and regulations set forth the procedures for hearings, requirements for the presiding officers, requirements for communications between the decision-maker and persons interested in the matter, and other important issues. After a decision is made by a hearing officer, both the appellant and the agency have the right to a review by the NAD director, who then issues a final determination. The final determination of the NAD is reviewable and enforceable by the U.S. District Court in accordance with the judicial review provisions of the APA.

National Aquaculture Act of 1980 — P.L. 96-362 (September 26, 1980), as amended, is intended to promote and support the development of private aquaculture and to ensure coordination among the various federal agencies that have aquaculture programs and policies. It provided for a national aquaculture policy, including a formal National Aquaculture Development Plan; established a Joint Subcommittee on Aquaculture on which officials of **USDA**, Commerce, Interior, and nine other federal agencies sit; designated **USDA** as the lead agency for coordination; and authorized the National Aquaculture Information Center within the **National Agricultural Library**.

National Bank for Cooperatives (CoBank) — An institution of the **Farm Credit System** that provides financial services to approximately 2,000 agricultural cooperatives, rural utility systems, Farm Credit System associations and other businesses serving rural America. CoBank also finances agricultural exports and provides international banking services primarily to U.S. agricultural **cooperatives**.

National Cheese Exchange (NCE) — A now defunct private non-profit corporation that operated in Green Bay, Wisconsin. Every Friday morning for one-half hour, members of the NCE met to buy or sell cheddar cheese in 40-pound blocks and 500-pound barrels on the exchange. The closing prices were published and widely circulated throughout the dairy industry, and were used as the basis for buying and selling cheese throughout the food distribution system. Up until April 1997 the **USDA** used changes in the NCE price as a principal component in determining the **basic formula price** for all milk sold under federal **milk marketing orders**. Activity on the NCE was regulated by the Wisconsin Department of Agriculture and the Wisconsin Attorney General.

National Early Warning System — A program run by the Centers for Disease Control to increase federal support to state health departments to detect **food borne diseases** by increasing the number of scientists available to investigate food borne outbreaks and by enhancing laboratory-based surveillance of important food borne pathogens.

National Environmental Policy Act of 1970 — P.L. 91-190 (January 1, 1970) made a declaration of national environmental policy and established a continuing responsibility of the federal government to reach a number of substantive goals that embody nationwide improvements in environmental quality. Federal policies, regulations, and laws must be administered in accordance with NEPA. To insure this is accomplished, all federal agencies must consider the environmental consequences of their actions through the preparation of **environmental impact statements (EIS)**. Also, the law creates the Council on Environmental Quality in the Executive Office of the President.

National Estuary Program — A program established under the **Clean Water Act Amendments of 1987** to develop and implement conservation and management plans for protecting estuaries and restoring and maintaining their chemical, physical, and biological integrity, as well as controlling **point source** and **nonpoint source** pollution sources.

National farm program acreage — The number of harvested acres of feed grains, wheat, and cotton needed nationally to meet domestic and export use and to accomplish any desired increase or decrease in carryover levels. The **acreage base** for an individual farm was calculated as the producer's share of the national **farm program** acreage. The **FAIR Act of 1996** eliminated the need to calculate a national program acreage.

National forest — Originally, forest reserves, established by Presidential proclamation mostly between 1891 and 1909. Today, the boundaries of the 155 national forests cannot be modified without congressional authorization, although many (especially eastern) national forests are combined for easier administration. The 117 administrative units, commonly referred to as national forests, are managed by the **Forest Service** for **multiple use** and **sustained yield** of **renewable resources**, as determined in **forest plans**.

National Forest Management Act (NFMA) of 1976 — P.L. 94-588 (October 22, 1976) largely amended the **Forest and Rangeland Renewable Resources Planning Act of 1974**, which required a national, strategic planning process for renewable resources for the **Forest Service**, and comprehensive, interdisciplinary land and resource management plans for units of the National Forest System. The law was seen as necessary, because a lawsuit (commonly known as the Monongahela decision) had invalidated most timber practices in the national forests. NFMA substantially enacted detailed guidance for forest planning, particularly in regulating when, where, and how much timber could be harvested and in requiring public involvement in preparing and revising the plans. NFMA also established the Salvage Sale Fund and expanded other Forest Service trust funds and special accounts.

National Forest System (NFS) — The 192 million acres administered by the **Forest Service** for **multiple use**; comprised of 155 **national forests** (in 117 units) with 187 million acres, 20 **national grasslands** with 4 million acres, and 112 other units (e.g., purchase units, land utilization projects, research and experimental areas) with about 500,000 acres. While the NFS lands are concentrated in the West, the 25 million acres east of the 100th Meridian (the Great Plains) make the Forest Service the largest land manager in the East.

National grasslands — A type of unit designated by **USDA** and under Title II of the **Bankhead-Jones Farm Tenant Act**, permanently held by USDA as part of the National Forest System.

National Marine Fisheries Service (NMFS) — An agency within the National Oceanic and Atmospheric Administration (NOAA) at the Department of Commerce. NMFS administers programs that support the domestic and international conservation and management of living marine resources. NMFS provides services and products to support domestic and international fisheries management operations, fisheries development, trade and industry assistance activities, enforcement, protected species and habitat conservation operations, and the scientific and technical aspects of NOAA's marine fisheries

program. NMFS conducts voluntary seafood inspection on a fee-for-service basis, mainly as a marketing and quality program rather than as a food safety program.

National Milk Laboratory Certification Program — Under a Memorandum of Understanding with the National Conference on Interstate Milk Shipments, the **Food and Drug Administration** conducts a national certification program for state centralized laboratories which test dairy products for contaminants and residues. FDA maintains accreditation of milk laboratories and sample collection surveillance procedures by making triennial on-site evaluations of laboratory facilities and equipment and by testing annually the performance skills of analysts. The FDA also standardizes, evaluates, and certifies state and territorial milk laboratory evaluation officers and state sampling surveillance officers.

National Natural Resources Conservation Foundation (NNRCF) — A nonprofit private organization established by the **FAIR Act of 1996** to promote and fund innovative solutions to conservation problems through effective partnerships. The Foundation can accept gifts and raise money. The NNRCF will conduct research, undertake educational activities, support demonstration projects, and make grants to state and local governments and nonprofit organizations. Appropriations are authorized at \$1 million per year for 1997-99, but no appropriations have been provided and the Foundation is not yet operational. Similar foundations have been created for several other natural resource areas.

National Nutrition Monitoring and Related Research Act of 1990 — P.L. 101-445 was enacted to establish a comprehensive, coordinated program for **nutrition monitoring** and related research to improve the assessment of the health and nutrition of the U.S. population. The Act required: a program to achieve coordination of federal nutrition monitoring efforts within 10 years and assist states and local governments in participating in a nutrition monitoring network; an interagency board to develop and implement the program; and, an advisory council to provide scientific and technical advice and evaluate program effectiveness. The Act also required that dietary guidelines be issued every five years, and that any dietary guidance issued by the federal government for the general public be reviewed by the Secretaries of both Agriculture, and Health and Human Services.

National Organic Program — A program authorized by the **Organic Foods Production Act of 1990** (Title 21 of the **FACT Act of 1990**) that would set national standards for **organic** products, and permit such products to be certified and labeled as “**USDA Certified Organic**.” The Act authorized the program to begin in 1993. However, due to delays in developing the standards and to controversy over the proposed rule that was published in the **Federal Register** (December 16, 1997, Page 65849-65898) the program had not yet been implemented by mid-1999.

National Organic Standards Board — A board established by Title 21 of the **FACT Act of 1990** to develop national standards for practices and substances to be used in implementing a **National Organic Program**. Producers meeting these standards can sell their products as “**USDA Certified Organic**.” As of mid-1999 the standards had not been finalized.

National Partnership Office (NPO) — The NPO is responsible for implementing **National Rural Development Partnership** policies and activities. The NPO provides budgetary and financial technical assistance to **State Rural Development Councils**.

National Research Council (NRC) — See **National Academy of Sciences**.

National Research Initiative Competitive Grants Program (NRI) — Generally referred to as the NRI, this program makes grants to scientists at both public and private laboratories for basic and applied agricultural research in priority areas as designated in the research title of the **FACT Act of 1990**. Grants are awarded competitively through a peer-review process.

National Resources Inventory (NRI) — A periodic survey of status and changing conditions of the soil, water, and related resources on private land conducted by **USDA’s Natural Resources Conservation Service**. The survey is conducted every 5 years, most recently in 1997. As of early 1999, the most recent published survey was for 1992.

National Rural Development Council (NRDC) — This is the federal component of the **National Rural Development Partnership**. The NRDC comprises representatives from various federal departments and national organizations whose activities or policies may affect rural areas. The NRDC provides guidance for the Partnership and works on behalf of State Rural Development Councils at the national level. It’s administrative office is housed in the U.S. Department of Agriculture.

National Rural Development Partnership — A collaborative effort comprised of representatives of the federal, state, local, and tribal governments, the private sector, and the nonprofit sector to promote rural development across the nation. The principle component of the Partnership is the **State Rural Development Councils**.

National Rural Economic Development Institute (NREDI) — Helps develop the capacity of the **National Rural Development Partnership** and its constituent organizations (**State Rural Development Councils** and the **National Rural Development Council**) by providing economic development-related training and consulting services.

National School Lunch Act — P.L. 79-396 (June 4, 1946) authorized federal cash and commodity support for school lunch and milk programs, “...as a measure of national security...” in response to claims that many American men had been rejected for military service in World War II because of diet-related health problems. Beginning in the early 1930’s federal support had been provided for school lunch programs through donations of surplus commodities, and when these dried up during the War, by grants provided under annual appropriations laws. The original **National School Lunch Act** established multi-year authority for the financing of school feeding programs. It since has been amended numerous times and now permanently authorizes the **national school lunch program** and the **child and adult care food program**. Federally guaranteed subsidies are provided for every lunch served, with higher amounts generally provided for lunches served to low-income children who meet income criteria set by the law. This Act also requires federal payments for meals and snacks served to children and elderly and disabled persons in day care facilities (the **child and adult care food program**) and children in summer programs operated in low-income areas (the **summer food service program**), and it requires a set value of commodity assistance for each lunch served under these programs. Other activities supported by this Act include meals supplements for children in after-school care, a homeless children nutrition program, meal service for Department of Defense overseas dependents schools , and an information clearinghouse.

National School Lunch Program — This **child nutrition program** provides cash and commodity assistance to public and private nonprofit elementary and secondary schools and residential child care institutions to support lunches served to all children in schools and institutions that choose to participate; snacks served in after-school programs also are federally subsidized. While all lunches and snacks are federally assisted, larger federal subsidies generally are provided for meals (or after-school snacks) served to children from lower-income families — i.e., **free** or **reduced-price** lunches and snacks, as opposed to **paid** lunches and snacks. Each meal or snack is subsidized at legislatively established rates that are annually indexed for food-price inflation. The program is permanently authorized under Sections 4 and 11 of the **National School Lunch Act**, administered by the **Food and Nutrition Service**, and funded as an entitlement by annual agriculture appropriations acts.

National Shellfish Sanitation Program (NSSP) — A program under which the federal **Food and Drug Administration** works cooperatively with the states, the **Interstate Shellfish Sanitation Conference**, and industry to assure the safety of molluscan shellfish (clams, oysters, mussels). Among other things, all such products entering interstate commerce must be handled by state-certified dealers, properly tagged, tracked by appropriate records, and be processed in plants that meet sanitation requirements. The FDA continually reviews state shellfish control programs for effectiveness.

National Wetland Inventory — An ongoing national survey of wetlands conducted by the **Fish and Wildlife Service**, primarily for scientific purposes. The data and maps it produces were used to track gains and losses of **wetlands** for more than two decades. The wetland tracking function will be now be done by the **Natural Resources Inventory**, most recently conducted in 1997.

National Wildlife Refuge System (NWRS) — Consists of all of the National Wildlife Refuges, the **Waterfowl Production Areas**, and certain other small tracts managed by states under cooperative agreements with the **Fish and Wildlife Service**. In general, these areas are managed primarily for conservation of wild plants and animals (particularly waterfowl). Other uses, such as recreation, grazing, energy development, etc., are permitted to the extent they are compatible with the conservation purpose. Some refuges have additional purposes defined in law.

National Wool Act of 1954 — Title VII of **Agricultural Act of 1954** was designated the **National Wool Act** and provided for a new and permanent **price support** program for wool and mohair to encourage increased domestic production through **incentive payments**. **Wool and mohair commodity programs** were in effect through **marketing year 1995**, at which time it was terminated under the explicit mandate of P.L. 103-130 (November 1, 1993).

Natural Resources Conservation Service (NRCS) — A **USDA** agency responsible for developing and carrying out national soil and water programs in cooperation with landowners, operators, and others. It was created in 1994 reorganization legislation by merging the Soil Conservation Service and many of the conservation cost-sharing programs of the Agricultural Stabilization and Conservation Service. The NRCS is responsible for developing and carrying out national soil and water conservation programs in cooperation with landowners, farm operators, and others. More than 70% of the approximately 12,000 employees work at the field level.

NAWD — National Association of WIC Directors.

NAWG — National Association of Wheat Growers.

NAWGA — National-American Wholesale Grocers Association.

NBC — National Broiler Council (in 1998 the organization changed its name to the National Chicken Council).

NCA — National crop acreage.

NCAMP — National Coalition Against the Misuse of Pesticides.

NCBA — National Cattlemen's Beef Association.

NCBA — National Cooperative Business Association.

NCC — National Chicken Council (formerly the National Broiler Council).

NCC — National Cotton Council.

NCE — **National Cheese Exchange**.

NCFAP — National Center for Food and Agricultural Policy.

NCFC — National Council of Farmer Cooperatives.

NCGA — National Corn Growers Association.

NCFH — National Center for Farmworker Health.

NCIMS — National Conference on Interstate Milk Shipments.

NDC — National Dairy Council.

NE — **Northern Europe cotton price.**

NEC — The White House National Economic Council, which in 1998 began examining some aspects of mergers in various U.S. industries; agricultural interests in 1998 and early 1999 were seeking to include agriculture as one of the industries.

NEPA — **National Environmental Policy Act of 1970.**

NEPA analysis — Analyses conducted during the preparation of documents required under the **National Environmental Policy Act of 1970**, particularly **environmental assessments** and **environmental impact statements**.

Net cash income — A farm's actual cash receipts and expenses in a given year, regardless of the year the goods sold were produced. In general, it serves as an indicator of the short-term financial condition of agricultural producers and their ability to pay household expenses, farm operating expenses, loan payments, and to purchase capital assets such as machinery. It consists of cash receipts from farm marketings of crop and livestock products, other cash income from such farm-related sources as machine hire, custom work and farm recreational activities, and direct government payments, less production expenses paid in cash. It excludes the non-monetary components of **gross farm income** and **net farm income**.

Net farm income — The return (both monetary and non-monetary) to farm operators for their labor, management and capital, after all production expenses have been paid (that is, **gross farm income** minus production expenses). It includes net income from farm production as well as net income attributed to the rental value of farm dwellings, the value of commodities consumed on the farm, depreciation, and inventory changes.

Net income (food stamps) — As relates to the food stamp program, net monthly income is an amount calculated for each food stamp household that, together with its size, effectively determines its food stamp benefit. It is calculated by reducing the household's total cash monthly income by a series of deductions. The lower a household's net income, the larger its food stamp benefit.

Net pen culture — A type of **aquaculture** where fish remain captive throughout their lives in marine pens built from nets, used by the salmon industry.

NET — **Nutrition Education and Training Program**

New Zealand Dairy Board (NZDB) — The New Zealand Dairy Board is a quasi- government corporation that was explicitly created by New Zealand statute to purchase all New Zealand dairy products that are manufactured for export. (New Zealand accounts for about 1 to 2% of world milk production, but has an export share of about 25% of the market.) The Board is governed by 13 Board members, 11 of whom are directors of New Zealand's dairy cooperatives, and 2 are appointed by the government. It operates through a global network of marketing subsidiaries, based in the countries where New Zealand dairy products are sold. Through its purchasing activities and its system of premiums and penalties, it can encourage the production of dairy products that are in high demand and discourage those that are in surplus.

NFI — National Fisheries Institute.

NFMA — **National Forest Management Act of 1976.**

NFO — National Farmers Organization.

NFPA — National Food Processors Association.

NFS — **National Forest System**

NFSMI — **National Food Service Management Institute.**

NFU — National Farmers Union.

NGA — National Governors Association.

NGA — National Grocers Association.

NGFA — National Grain and Feed Association.

NGTC — National Grain Trade Council.

NHCP — National Handbook of Conservation Practices.

Nitrate — The nitrogen ion, NO_3^- , is derived from nitric acid and is an important source of nitrogen in fertilizers. Nitrate pollution of drinking water, shallow wells being particularly vulnerable, is of concern because infants are especially sensitive. A nitrate drinking water standard has been set under the **Safe Drinking Water Act**. An **Environmental Protection Agency** national survey of drinking water wells conducted from 1988 to 1990 indicated that 2.4% of rural domestic wells contained nitrate at or above the 10 mg/L standard. Higher rates of contamination have been found in areas of high vulnerability; for example, surveys along the upper Des Moines river indicate that 20 to 30% of wells exceed the standard.

Nitrogen — An element found in the air and in all plant and animal tissues. For many crops, nitrogen **fertilizer** is essential for economic yields. However, nitrogen can also be a pollutant when nitrogen compounds are mobilized in the environment (e.g., leach from fertilized or manured fields), are discharged from septic tanks or feedlots, volatilize to the air, or are emitted from combustion engines. As pollutants, nitrogen compounds can have adverse health effects (see **nitrate** and **air pollution**) and contribute to degradation of waters (see **eutrophication**).

NLEA — **Nutrition Labeling and Education Act of 1991.**

NMA — National Meat Association.

NMFS — National Marine Fisheries Service.

NMPF — National Milk Producers Federation.

No net cost — A provision requiring that a **price support** program be operated at no cost to the federal government. The **No-Net-Cost Tobacco Act of 1982** required the participants in the 1982 and subsequent year tobacco programs to pay an **assessment** to cover potential losses in operating the **tobacco price support program**. The **Food Security Act of 1985** required that **USDA** operate the sugar program at no cost. This provision applied through the 1996 crop year for the sugar crops, and was repealed by the **FAIR Act of 1996**. The 1996 changes to the peanut program are designed to ensure that it also operates at no cost.

No Net Cost Tobacco Act of 1982 — P.L. 97-218 (July 20, 1982) required that the **tobacco price support program** operate at no net cost to taxpayers, other than for the administrative expenses common to all price support programs. To satisfy this mandate, sellers and buyers (including importers) of tobacco are assessed equally to build a capital account that is drawn upon to reimburse the **Commodity Credit Corporation** for any losses of principal and interest resulting from **nonrecourse loans**. Other provisions of this law provided for reducing the level of support for tobacco and made various modifications to the marketing quota and acreage allotment programs.

No net loss wetlands policy — An overall policy goal for wetland protection first adopted by the Bush Administration, and more recently by the Clinton Administration. The goal is to halt the decline in the overall number of wetland acres in the country. It refers only to acres and does not compare the functions and values of wetlands gained and lost. Also, this goal does not address the question of whether it is acceptable to destroy some wetlands if at least the same number of acres are created or restored at another site. Currently there are about 100 million wetland acres, compared to about 200 million when the country was first settled.

No observable adverse effect level (NOAEL) — From long-term toxicological studies of agricultural chemical active ingredients, levels which indicate a safe, lifetime exposure level. Used in setting pesticide residue **tolerances**.

No-till farming — A method of planting crops that involves no seed bed preparation other than opening the soil to place individual seeds in holes or small slits; usually no cultivation during crop production; chemical weed control is normally used. May also be referred to as slot tillage or zero cultivation. See, for comparison, **conservation tillage** and **minimum tillage**.

NOAA — National Oceanic and Atmospheric Administration.

NOAEL — No observable adverse effect level.

Nonbasic commodities — Commodities other than basic commodities for which **USDA** is authorized to provide **price support** in **permanent law**. This includes soybeans and other oilseeds, milk, sugar beets, and sugarcane.

Noncompetitive imports — A term used by the Economic Research Service in its reporting of agricultural trade statistics to refer to imports of commodities not produced in the United States. Commodities such as tea, bananas, or coffee are considered noncompetitive imports. In contrast, imported commodities that are also produced in the United States are referred to as **competitive imports**.

Non-indigenous species — See **invasive species**.

Noninsured Assistance Program (NAP) — Producers who grow a crop that is currently not eligible for crop insurance may be eligible for a **direct payment** under the Farm Service Agency's noninsured assistance program (NAP). NAP has permanent authority under the **Federal Crop Insurance Reform Act of 1994** and was designed to replace ad-hoc farm disaster legislation that was enacted nearly every year between 1988 and 1993. For a producer of a noninsured crop to become eligible for a payment, area-wide losses for that crop must be at least 35% of normal yields. Once the 35% area-wide threshold is reached, an individual producer must then experience a minimum crop loss of 50%. A noninsured producer then receives a payment comparable to an insured producer under **catastrophic crop insurance** coverage — 60% of the market price on losses in excess of 50%. A producer of a noninsured crop is subject to a **payment limit** of \$100,000 per **person** and is ineligible for a payment if the producer's qualifying gross revenues exceed \$2 million.

Nonmoney income — A statistical allowance used in **farm income** compilations to credit farmers with income for the value of farm products used on the farm (instead of being sold for cash) and the rental value of farm dwellings. It assumes farmers otherwise live rent-free on their farm business premises.

Non-native species — See **invasive species**.

Nonpoint source pollution — Pollutants that are not discharged or emitted from a specific "point" source, such as a pipe or smokestack. Nonpoint water pollutants are often carried from dispersed, diverse sources into water channels by rain-induced runoff. Runoff from streets, open pit and strip mines, and agricultural fields are prominent examples (see **agricultural pollution**). Nonpoint source air pollutants (often called fugitive emissions) include small dispersed sources, e.g., fireplace smoke, and uncontained emissions, like dust blown from fields and unpaved roads.

Non-program crops — Any agricultural commodity not covered by federal **commodity programs**. **Program crops** are wheat, corn, barley, grain sorghum, oats, upland cotton, and rice.

Nonrecourse loans — Farmers or processors participating in government **commodity programs** may pledge certain stored commodities as collateral and obtain a loan from the CCC at a commodity-specific, per-unit **loan rate**. The borrower may repay the loan, with interest, within a specified period and regain control of the commodity. Alternatively, the commodity can be forfeited to the CCC at the end of the term with no penalty. The government takes no recourse beyond accepting the commodity as full settlement of the loan. The loans provide operating capital to producers of wheat, feed grains, cotton, peanuts, tobacco, rice, and oilseeds. Dairy processors (until 2000) and sugar processors (when imports are equal to or greater than 1.5 million short tons) are also eligible for nonrecourse loans. In the past, loan rates sometimes exceeded market prices. The CCC then became an alternative purchaser to the market, thereby supporting prices. For those commodities eligible for **marketing assistance loan** benefits, producers may repay the loan at the **world price** (rice and upland cotton) or **posted county price** (wheat, feed grains, and oilseeds).

Nonrenewable resources — Nonrenewable resources, in contrast to **renewable resources**, do not naturally replenish themselves within time limits that permit **sustained yield** (i.e., minerals and hydrocarbons, such as phosphate rock, limestone, petroleum). Nonrenewable resources may be called stock resources because of their fixed supply. Some resources, such as soil and water, can be termed either nonrenewable or renewable depending on circumstances. For example, some underground reservoirs replenish so slowly they are effectively nonrenewable, such as the Ogallala Aquifer. Soil that is eroding faster than its **T value** faces eventual depletion.

Non-road emissions — Pollutants emitted by non-road engines and non-road vehicles, e.g., farm and construction equipment, gasoline-powered lawn and garden equipment, and power boats and outboard motors. The **Clean Air Act**, §213, provides that the **Environmental Protection Agency** can issue regulations to limit emissions from these sources.

Nontariff barriers (NTB's) — Any restriction, charge, or policy other than a **tariff**, that limits access of imported goods. Examples of nontariff barriers include quantitative restrictions, mainly **import quotas** and **embargoes**; **import licenses**; exchange controls; **state trading enterprises**; **bilateral agreements**; and certain rules and regulations on health, safety, and sanitation. The **Uruguay Round** Agreement on Agriculture requires conversion of NTBs to **bound tariffs** and **tariff-rate quotas**, and that **sanitary and phytosanitary measures** be based on sound science.

NOP — **National Organic Program**.

Normal crop acreage — The acreage on a farm normally devoted to a group of designated crops. When a **set-aside program** is in effect, a participating farm's total planted acreage of such designated crops plus set-aside acreage cannot exceed the normal crop acreage. The authority for set-asides was eliminated by the **FAIR Act of 1996**.

Normal flex acreage — A provision of the Omnibus Budget Reconciliation Act of 1990 requiring a mandatory 15% reduction in **payment acreage**. Under this provision, producers were ineligible to receive **deficiency payments** on 15% of their **crop acreage base** (not including any acreage removed from production under any **production adjustment** program). Producers, however, were allowed to plant any crop on this acreage, except fruits, vegetables, and other prohibited crops. Normal **flex acreage** no longer exists under the **FAIR Act of 1996**.

Normal yield — The average historic yield established for a particular farm or area. Can also describe average yields. Normal production would be the **normal crop acreage** planted multiplied by the **normal yield**. These measures, required by previous **commodity programs** to calculate benefits, are not required for **production flexibility contracts** under the **FAIR Act of 1996**.

North American Free Trade Agreement (NAFTA) — A **multilateral agreement** negotiated by the United States, Canada and Mexico that sets forth agreements to lower and/or eliminate unfair trade barriers that affect the trade of goods and services between the three countries. NAFTA entered into force on January 1, 1994. The agriculture portion of NAFTA effectively is three bilateral agreements; U.S./Mexico, Mexico/Canada, and U.S./Canada. The U.S.-Canada agricultural agreement in NAFTA was negotiated previously as part of the U.S.-Canada Free Trade Agreement.

North American Free Trade Agreement Implementation Act — P.L. 103-182 (December 8, 1993) approved and implemented the **North American Free Trade Agreement (NAFTA)**. NAFTA pertains to cross-border trade between the United States, Mexico, and Canada. NAFTA substantially eliminated all nontariff barriers to agricultural trade between the United States and Mexico, generally through their conversion to **tariff-rate quotas** or ordinary **tariffs**, and maintained the provisions of the United States-Canada Free Trade Agreement on agricultural trade. With respect to Mexico, the law eliminated tariffs on a broad range of agricultural products and provided for a phase-out over up to 15 years for tariffs on other products. A special **safeguard** provision will apply to certain products, with a designated quantity of imports allowed at a NAFTA preferential tariff rate. NAFTA increases incentives for buying within the NAFTA region.

North American Industry Classification System (NAICS) — Standard industrial classification codes have been replaced in the 1997 Census of Agriculture by the new North American Industry Classification System (NAICS). NAICS is a unique, all-new system for classifying business establishments. It is the first economic classification system to be constructed based on a single economic concept. Economic units that use like processes to produce goods or services are grouped together. In the case of the Census of Agriculture, the shift from SIC codes to NAICS codes involves few changes. Farms are grouped into crop or livestock production and then into the subcategory which accounts for 50% or more of the total value of sales of agricultural products (i.e., cotton, tobacco, dairy).

North American Waterfowl Management Plan — An international program in cooperation with Mexico and Canada to protect, restore, enhance, and manage **wetland** ecosystems for migratory birds and other wildlife and fish. It was authorized by the **North American Wetlands Conservation Act of 1989**. This program is administered by the **Fish and Wildlife Service**, and **USDA** agencies participate as appropriate.

North American Wetlands Conservation Act — P.L. 101-233 (December 13, 1989), and amended in 1990 and 1994, authorizes a wetlands habitat program; administered by the **Fish and Wildlife Service**. The law authorized annual appropriations of up to \$20 million to fund a grant program to protect and manage **wetland** habitats for migratory birds and other wetland wildlife in the United States, Mexico, and Canada. A nine-member council meets periodically to decide which projects to fund. The program encourages private-public cost-sharing projects. It must allocate between 50% and 70% of all funds to projects in Mexico and Canada, and no more than 50% of the U.S. share for projects in these countries can come from federal funds. Agricultural wetlands are not specifically identified in the law, and agricultural interests are not expressly represented on the council.

Northeast Interstate Dairy Compact — An agreement among the six New England States to support the farm price of milk used for fluid consumption at a higher level than under current federally mandated minimum prices in the region. Current law allows membership in the compact to expand to New York, New Jersey, Pennsylvania, Delaware, Maryland and Virginia, if the prospective state is contiguous to a member state, and if the compact is approved by the state legislature of the prospective state and the U.S. Congress. Under law, the compact must terminate when reforms to federal milk marketing orders are implemented by **USDA**, which has a statutory deadline of October 1, 1999.

Northern Europe (NE) cotton price — An average of the five lowest prices of several internationally-traded cottons (including cost, insurance, and freight) quoted for delivery in Northern Europe. The NE price is used by **USDA** in its formula for calculating the **adjusted world price**, used in administering **marketing assistance loan** and **step 2 payment** benefits under the cotton **price support** program.

NOSB — National Organic Standards Board.

Noxious weeds — Undesirable plants that infest either land or water resources and cause physical and economic damage. Under the **Federal Noxious Weeds Act of 1974**, (P.L. 93-629, January 3, 1975), the **Animal and Plant Health Inspection Service** works to prevent noxious weeds from entering the country, and conducts cooperative control/eradication programs with the states. Local governments frequently impose taxes on landowners to carry out noxious weed control programs.

NPE — Nutrition Program for the Elderly.

NPHAP — National Pesticide Hazard Assessment Program.

NPPC — National Pork Producers Council.

NPR — National Performance Review.

NPS — Non-point source.

NRA — National Renderers Association.

NRA — National Restaurant Association.

NRC — National Research Council (see **National Academy of Sciences**).

NRCS — Natural Resources Conservation Service.

NRECA — National Rural Electric Cooperative Association.

NRI — National Research Initiative Competitive Grants Program; National Resources Inventory.

NRSP-7 — National Research Support Project 7, also known as the Minor Use Animal Drug Program, is the counterpart for animals of the **IR-4** plant program. The program targets development of therapeutic drugs for minor species, such as small ruminants and aquatic species, plus support for drugs for minor use within major species. It is carried out in partnership with the **Food and Drug Administration's Center for Veterinary Medicine**.

NSLA — National School Lunch Act.

NSLP — National School Lunch Program.

NSSC — National Soil Survey Center.

NSSP — National Shellfish Sanitation Program.

NTB's — Nontariff barriers.

NTF — National Turkey Federation.

NTP — National Toxicology Program.

Nutrient pollution — Contamination by excessive inputs of nutrient: a primary cause of **eutrophication** of surface waters, in which excess nutrients, usually **nitrogen** or **phosphorus**, stimulate algal growth. Sources of nutrient pollution include runoff from fields and pastures, discharges from septic tanks and **feedlots**, and emissions from combustion.

Nutrition Assistance Programs — Federal programs in Puerto Rico and American Samoa that provide food assistance through block grant funds in lieu of food stamps, and to the Northern Marianas under a covenant governing U.S. relations with that jurisdiction.

Nutrition Education and Training (NET) Program — Authorizes grants to states for a nutrition education program targeting school children, teachers, parents, and food service workers. The program is authorized under the **Child Nutrition Act** through FY2003 at an annual funding level of about \$10 million.

Nutrition guidelines — Federal guidelines established for meals served in **child nutrition** meal service programs governing the types of foods and nutrient content required in order to be eligible for reimbursement.

Nutrition Labeling and Education Act of 1991 (NLEA) — P.L. 101-535 (November 8, 1990) mandated for the first time that most foods regulated by the **Food and Drug Administration** must be sold with nutrition labeling. The Act changed the list of nutrients that must appear on nutrition labels to focus on those of primary public health concern, adding saturated fat, cholesterol, total and subgroups of carbohydrates, and dietary fiber. Nutrition information was required on packaged and bulk foods, with few exceptions. A voluntary program was established for produce and seafood. Although NLEA did not directly affect the labeling of meat and poultry which is under the jurisdiction of **USDA**, comparable changes were made in the USDA labeling program for meat and poultry products in order to provide consistent nutrition labeling information on all food products for consumers.

Nutrition Program for the Elderly (NPE) — This program, authorized under Title III of the Older Americans Act, provides (1) basic grants to operate nutrition programs for the elderly, such as “meals-on-wheels” and congregate dining programs, and (2) additional cash payments or commodity assistance for each meal served. The basic grants are funded under annual appropriations to the Department of Health and Human Services and distributed by formula. The additional per-meal cash or commodity assistance is funded under annual appropriations to the **Food and Nutrition Service**. While states may opt for either cash or commodity assistance, most choose per-meal cash payments.

NWF — National Wildlife Federation.

NWR — National Wildlife Refuge.

NWRS — **National Wildlife Refuge System**

NWS — National Weather Service.

OBPA — Office of Budget and Program Analysis.

Occupational Safety and Health Administration (OSHA) — The U.S. Department of Labor agency responsible for administering the Occupational Safety and Health Act (P.L. 91-596). According to OSHA, farming is the nation’s most hazardous occupation. Agriculture is the largest occupational group in the U.S., with some 10 to 20 million people depending upon one’s criteria of “agriculture.” The intrinsically seasonal nature of many segments of agriculture not only causes the size of this workforce to vary temporally and often geographically via migrant work groups, but usually also has major effects on the nature and intensity of the work itself. OSHA has issued safety standards relating to agricultural operations.

Ocean freight differential (under P.L. 480) — The difference between the cost of **P.L. 480** shipments that are required to be carried on U.S. flag vessels compared to the cost that would have been incurred had they been carried on lower cost

foreign **bottoms**. The U.S. government pays this difference either by paying the total freight, if the sale is made under Title II of P.L. 480, or by reimbursing the recipient country or private grain company (whichever pays the shipping) if the sale is made under Title I of P.L. 480.

Ocean ranching — A type of **aquaculture**, used mainly by the salmon industry, which cultures juvenile fish, releases them to mature in the open ocean, and catches them when they return as adults to spawn.

OECD — Organization for Economic Cooperation and Development.

Offal — The less valuable byproduct material from the preparation of a specific product; primarily refers to the byproducts of meat and poultry plants, e.g., blood, bone, feathers, fat.

Offer versus serve — Refers to the option children may have to refuse one or more items offered as part of a federally subsidized school lunch or breakfast without losing eligibility for federal reimbursement.

Office of the Chief Economist (OCE) — The Office of the Chief Economist advises the Secretary of Agriculture on the economic implications of policies and programs affecting the U.S. food and fiber system and rural areas. The Chief Economist coordinates, reviews, and approves the **USDA's** commodity and farm sector forecasts. In addition, the Chief Economist oversees the activities of the Coordinator of Agricultural Labor Affairs, the Director of Sustainable Development, the **World Agricultural Outlook Board** and the Office of Risk Assessment & Cost-Benefit Analysis.

Office of Migrant Education (OME) — An Office of the U.S. Department of Education that works to improve teaching and learning for migratory children. Programs and projects administered by OME are designed to enable children whose families migrate to find work in agricultural, fishing, and timber industries to meet the same academic content and student performance standards that are expected of all children.

Office Of Risk Management — See **Risk Management Agency**.

Off-farm (non-farm) income — That portion of farm household income obtained off the farm, including nonfarm wages and salaries, pensions, and interest income earned by farm families. On average for all farms in the United States, off-farm income accounts for about 90% of farm operator household income.

Offset — Liquidating a purchase of **futures contracts** through the sale of an equal number of contracts of the same delivery month, or liquidating a **short** sale of futures through the purchase of an equal number of contracts of the same delivery month. In other words, selling if one has bought, or buying if one has sold, a futures or option contract.

Offsetting compliance — A requirement that a farmer owning multiple farms who wishes to participate in a crop program must comply with the program's provisions on all farms under the farmer's ownership in order to be eligible for program benefits. This provision does not apply to **production flexibility contracts** enacted under the **FAIR Act of 1996**.

OGC — Office of General Counsel.

OIG — Office of Inspector General.

Oilseed crops — Primarily soybeans, sunflower seed, canola, rapeseed, safflower, flaxseed, mustard seed, peanuts and cottonseed, used for the production of cooking oils, protein meals for livestock, and industrial uses. These specific oilseeds are eligible for **nonrecourse loans**. Other oilseed crops include castor beans and sesame.

OL — Farm operating loans.

Omnibus Consolidated and Emergency Appropriations Act, FY1999 — P.L. 105-277 (October 21, 1998), among its numerous provisions that include the regular annual appropriations for most **USDA** programs, provided \$5.9 billion in emergency spending for USDA programs to shore up farm income and to compensate farmers for natural disasters. More than one-half of this amount (\$3.1 billion) was in the form of direct “market loss” payments to grain, cotton, and dairy farmers for income assistance. Most of the \$2.4 billion balance was in the form of disaster payments made to farmers who experienced large crop losses in either 1998 or in 3 of the 5 years between 1994 through 1998.

Omnibus Trade and Competitiveness Act of 1988 — P.L. 100-418 (August 23, 1988) provided the President with negotiating authority for the **General Agreement on Tariffs and Trade (GATT) Uruguay Round**, U.S.-Canada Free Trade Agreement, and the **North American Free Trade Agreement**, and specified U.S. negotiating objectives regarding agriculture. The law revised statutory procedures for dealing with unfair trade practices and import damage to U.S. industries. It gave **USDA** discretionary authority to trigger **marketing loans** for wheat, feed grains, and soybeans, if it is determined that unfair trade practices exist.

Open position — Ownership of a fixed-price forward contract, especially a **futures contract**.

Options contract — An option contract gives the buyer the right, but not the obligation, to buy (**call option**) or sell (**put option**) a **futures contract** at a specific price within a specified period of time, regardless of the market price of that commodity.

Option premium, futures — The amount an option buyer pays the **option writer** for an **option contract**.

Option writer, futures — A person who sells an **option contract**, receives the premium, and bears the obligation to buy or sell the asset at the **strike price**.

Optional flex acreage — Under the planting flexibility provision of the **Agricultural Act of 1949**, as amended by the **FACT Act of 1990**, producers could choose to plant up to 25% of the **crop acreage base** to other CCC-specified crops (except fruits and vegetables) without a reduction in crop acreage bases on the farm, but receive no **deficiency payments** on this acreage. The Omnibus Budget Reconciliation Act of 1990 further amended the 1949 Act to make a 15% reduction in **payment acreage** mandatory. The remaining 10% was optional **flex acreage**. Optional flex acreage was eligible for deficiency payments when planted to the **program crop**. Optional flex acres no longer exist under the **FAIR Act of 1996**.

Options contracts, futures — A contract traded on a commodity futures exchange that gives the buyer the right without obligation to buy or sell a **futures contract** over a specified time period. The **FAIR Act of 1996** requires **USDA** to conduct research through pilot programs to determine if futures and options contracts can provide producers with reasonable protection from the financial risks of fluctuations in price, yield, and income inherent in the production and marketing of agricultural commodities.

ORACBA — Office of Risk Assessment and Cost Benefit Analysis, **USDA**.

Oral toxicity — Ability of a chemical to cause injury when ingested by mouth.

Orderly marketing — Coordination of the total supply of a commodity in order to achieve sellers’ joint market objectives. This is an activity carried out by some **marketing order** programs.

Organic — Chemically, a compound or molecule containing carbon bound to hydrogen. Organic compounds make up all living matter. The term organic frequently is used to distinguish “natural” products or processes from man-made “synthetic” ones. Thus natural **fertilizers** include manures or rock phosphate, as opposed to fertilizers synthesized from chemical feedstocks. Likewise, **organic farming** and **organic foods** refer to the growing of food crops without the use of synthetic chemical **pesticides** or fertilizers; pests are controlled by cultivation techniques and the use of pesticides derived from natural

sources (e.g., rotenone and pyrethrins, both from plants) and the use of natural fertilizers (e.g., manure and compost). Some consumers, alleging risks from synthetic chemicals, prefer organic food products. The **FACT Act of 1990** required **USDA** to define organic foods for marketing purposes and implement a **National Organic Program**.

Organic farming — An approach to farming based on biological methods that avoid the use of synthetic crop or livestock production inputs; also a broadly defined philosophical approach to farming that puts value on ecological harmony, resource efficiency, and non-intensive animal husbandry practices. Farmers who wish to have their operations certified as organic so that they can label their products as organically produced currently follow standards and submit to inspection by private or state certification organizations. A **National Organic Program** is authorized and being developed.

Organic foods — Food products produced by organic farming practices and handled or processed under organic handling and manufacturing processes as defined by several private and state organic certifying agencies. Once the **National Organic Program** is operational, there will be a national standard for what constitutes organic foods based on uniform standards for organic production, processing, and handling.

Organization for Economic Development and Cooperation (OECD) — An international organization established by the United States, Canada and certain Western European countries in 1960. The OECD studies and discusses trade and related matters. Its current 29 members include the United States, Canada, the 15 countries of the **European Union**, Australia, New Zealand, Japan, and Turkey. More recently, Mexico, the Czech Republic, Hungary, Poland and South Korea have become OECD members.

Organoleptic — Relating to the senses (taste, color, odor, feel). Traditional **USDA** meat and poultry inspection techniques are considered organoleptic because inspectors perform a variety of such procedures—involving visually examining, feeling, and smelling animal parts—to detect signs of disease or contamination. These inspection techniques are not adequate to detect **food borne pathogens** that are of growing concern.

Organophosphates — Insecticides that contain phosphorus, carbon, and hydrogen. They are **cholinesterase inhibitors**; some are highly acutely toxic, but they usually are not persistent in the environment. Parathion is an example of an organophosphate.

Orthophotography — Aerial photographs that more precisely show the features of the landscape, including those that might be important for agriculture such as slope or size of gullies, because they are corrected for distortion caused by tilt, curvature, and ground relief.

OSHA — Occupational Safety and Health Administration

Ozone (O₃) — A highly reactive molecule composed of three oxygen atoms. Environmentally, ozone is important in two completely separate contexts—one, as a naturally occurring screen of harmful radiation in the outer atmosphere (i.e., stratospheric ozone), and two, as a component of polluting smog formed from emissions resulting from human activities (i.e., urban smog). In the stratosphere 7 to 10 miles above the Earth, naturally occurring ozone acts to shield the Earth from harmful radiation. In the 1970s and 1980s, it was discovered that emissions of certain chemicals catalyze destruction of stratospheric ozone, allowing more radiation to reach the Earth's surface. The U.S. is a signatory to the 1987 **Montreal Protocol on Ozone Depleting Substances**, which bans or limits uses of chemicals whose emissions deplete stratospheric ozone. Among the chemicals being phased out as ozone depleters are chlorofluorocarbons used in refrigeration and air conditioning and **methyl bromide**, a pesticide. In the lower atmosphere (troposphere), ozone is a major air pollutant that contributes to smog, adversely affects human health, and is toxic to some plants, damaging forests and crops. Tropospheric ozone forms from reactions between nitrogen oxides and volatile organic compounds in the presence of sunlight. The precursor pollutants are emitted by combustion sources such as motor vehicles and utilities, use of solvents, and petrochemical facilities. Tropospheric ozone is regulated under a **National Ambient Air Quality Standard**.

P.L. 480 (or Public Law 480) — P.L. 83-480 (July 10, 1954), also called **Food for Peace**, is the common name for food aid programs established by the **Agricultural Trade Development and Assistance Act of 1954**, which seeks to expand foreign markets for U.S. agricultural products, combat hunger, and encourage economic development in developing countries. Title I makes **export credit** available on concessional terms, for example, at low interest rates for up to 30 years. Donations for emergency food relief and non-emergency humanitarian assistance are provided under Title II. Title III authorizes a Food for Development program that provides government-to-government grant food assistance to least developed countries. The **FAIR Act of 1996** extends the authority to enter into new P.L. 480 agreements through 2002.

P.L. 566 — Public Law 83-566 (August 4, 1954), **Watershed Protection and Flood Prevention Act of 1954**. See **watershed and flood prevention operations**.

PACA — Perishable Agricultural Commodities Act.

Packer concentration — The degree to which a few large firms dominate total sales within segments of the meat packing industry, which, some farmers and other critics contend, can cause or at least contribute to lower prices for their animals. Market control by five large packers in the early 1900s led to passage of the **Packers and Stockyards Act of 1921**. **Concentration** declined after that, but has increased sharply in more recent years. For example, the four largest firms accounted for 80% of the steer and heifer slaughter in 1997, compared with 36% in 1980. **Four-firm concentration** in hog slaughter increased to 54% in 1997 compared with 34% in 1980, according to **USDA**. Numerous government-sponsored studies and investigations have been inconclusive on the relationship in recent years between concentration and prices.

Packers and Stockyards Act of 1921 — P.L. 67-51 (August 15, 1921) remains, in amended form, the basic authority for **USDA** to regulate marketing practices in the livestock, poultry, and meat industries. The law was enacted to prevent unfair, deceptive, and monopolistic trade practices, focusing on livestock terminal and auction markets, livestock marketing agencies, dealers, meat packers, and live poultry dealers. The law also includes provisions to ensure that livestock and poultry producers are promptly paid when they sell their animals.

Paid diversion — A program, repealed by the **FAIR Act of 1996**, under which farmers were paid to voluntarily take acreage out of production. The diverted land was devoted to approved **conservation practices**. Unlike **acreage reduction** and **set-aside programs**, participation in a paid diversion program was not normally a condition of eligibility for other support program benefits.

Paid lunch (or breakfast, supper, or snack) — Refers to a federally reimbursed meal (or snack) bought by a child who does not qualify for a free or reduced price meal. Also often referred to as a “full-price” lunch, or a **Section 4** lunch. See **free lunch**.

Palmer Drought Index — A measure of the severity of prolonged periods (months or years) of abnormal dryness or wetness over large regions, published periodically by the **Joint Agricultural Weather Facility**. The Palmer Index has long been used by the agriculture community to anticipate the potential effects of weather on crop development and yield.

Parity price — A measurement of the purchasing power of a unit of a particular commodity. Originally, parity was the price per bushel, bale, pound, or hundredweight that would be necessary for a unit of a commodity today to buy the same quantity of other goods (from a standard list) that the commodity could have purchased in the 1910-14 base period. Under **permanent law**, prices of some commodities would be supported at 50 to 90% of parity through direct government purchases or **nonrecourse loans**. In 1948, the parity price formula was revised to make parity prices dependent on the relationship of farm and nonfarm prices during the most recent 10-year period for **nonbasic commodities**. **Basic commodities**, including wheat, corn, rice, peanuts, and cotton use the higher of the historical or the new formula.

Parity ratio — The ratio of the **prices received index**, 1910-14=100, to the **prices paid index** on a 1910-14=100 base (called the parity index). The parity ratio is a measure of relative price relationships. It is not a measure of farm income, of farmers' total purchasing power, or of farmers' economic welfare. The well-being of the farm community depends upon a number of factors other than price relationships, such as changes in production efficiency and technology, quantities of farm products sold, and supplementary income (including income from off-farm jobs and federal farm programs). Over time the parity ratio has declined due to greater efficiency gains in agriculture. Compared to a parity ratio of 100 in the 1910-14 time period, the 1998 annual parity ratio was 42.

Particulates — The **Environmental Protection Agency** has set **National Ambient Air Quality Standards** for particulates. One, in effect since 1987, regulates particles smaller than 10 microns in diameter (PM₁₀); the other, promulgated in 1997, would regulate particles smaller than 2.5 microns in diameter (PM_{2.5}) — but court challenges are delaying its implementation. These are of interest to agriculture because dust from tillage and smoke from burning field residues may contribute to pollutant levels. Whether controls might be imposed on agricultural activities depends largely on how each state chooses to meet the standards, however.

Partners for Wildlife — A voluntary partnership program administered by the **Fish and Wildlife Service** to provide financial and technical assistance to private landowners who wish to protect or restore **wetlands**. This program has been widely used by rural landowners, including farmers.

Partners in Quality — An **AMS** documented quality assurance system for fresh produce packing houses. Those that incorporate the program's rigorous quality standards and requirements (monitored by periodic unannounced AMS audits) into their ongoing daily operations may not have to undergo the traditional, more costly, and less flexible end-of-the-line inspection that AMS conducts before awarding a quality grade to the company's products, according to the agency.

Pastureland — Land used primarily for the production of domesticated forage plants for livestock (in contrast to rangeland, where vegetation is naturally-occurring and is dominated by grasses and perhaps shrubs). Rotation pasture or cropland under winter cover crops is not included in this definition. The 1992 **national resources inventory** recorded 126 million acres of pastureland, 9% of all nonfederal rural lands.

Pathogen; pathogenic — Pathogens are infectious or toxin forming microorganisms causing disease. A **food borne pathogen** is a microorganism that causes illness through the ingestion of food.

Payment-in-kind (PIK) — In general, a payment made in the form of CCC-owned commodities (or title to them) in lieu of cash. This form of payment was widely used during the 1980s for **paid diversion**, **deficiency payments**, and **export subsidy** payments as a means of disposing of or avoiding the acquisition of commodity inventories. **PIK certificates** entitled the holder to a specific quantity of commodities.

Payment limitation — The maximum annual amount of **commodity program** benefits a **person** can receive by law. Persons are defined under payment limitation regulations, established by **USDA**, to be individuals, members of joint operations, or entities such as limited partnerships, corporations, associations, trusts, and estates that are actively engaged in farming. The **three entity rule** limits the number of farms from which a person can receive program payments. The **FAIR Act of 1996** sets payment limits at \$40,000 per person per fiscal year on **production flexibility contracts** (down from \$50,000 on target price **deficiency payments**). The limits of \$75,000/person/year with respect to **marketing assistance loan** gains and **loan deficiency payments** for crops of contract commodities or oilseeds is maintained.

Payment quantity — The quantity of production eligible for **production flexibility contract** payments under the **FAIR Act of 1996**. Payment quantity is calculated as the farm's **program yield** (per acre) multiplied by 85% of the farm's **contract acreage** (but subject to **payment limitations**).

Payment rate — Generally, the amount paid per unit of production (i.e., bushel, pound, hundredweight) to each participating farmer for eligible production under **commodity** income and **price support** programs.

Payments in lieu of taxes (PILT) — A program administered by the **Bureau of Land Management** of the **Department of the Interior** to compensate counties for the tax-exempt status of federal lands; the fixed payments per entitlement acre (on most but not all federal lands) are adjusted for low county populations and for other revenue-sharing payments (e.g., Forest Service **county payments**) in a complicated formula.

Payments to States — See **Federal-State Marketing Improvement Program**.

P&S — A shorthand reference either to the **Packers and Stockyards Act of 1921**, or to the branch of **GIPSA** that administers the Act.

PBIS — Performance Based Inspection System.

PC — **Prior converted wetland**.

PCA — **Production Credit Association**.

PCC — Prior converted cropland.

PDP — **Pesticide data program**.

Peace clause — Term used to refer to Article 13 of the **Uruguay Round** Agreement on Agriculture which exempts certain policies from challenges in the World Trade Organization so long as countries are meeting their commitments under the agreement.

Peanut poundage quota — A **peanut price support program** supply control mechanism authorized by the **Agricultural Adjustment Act of 1938** to regulate the marketing of peanuts consumed domestically for food when production becomes excessive. The **FAIR Act of 1996** requires that (for the 1996-2002 crops) the poundage quota be set equal to projected food demand and related uses (but not including seed use). A related provision allocates a separate temporary (annual) quota to all peanut producers, based on the amount of seed peanuts planted on each farm. The national quota is allocated among states based on a historical share, and then divided among farms based on production history. Owners (via inheritance or purchase) of farm quota may sell peanuts produced against their quota, or sell, lease and transfer their quota to other producers. The **FAIR Act of 1996** permits the sale, lease, and transfer of a farm quota across county lines up to specified limited percentages of a county's total of all farm quotas. Quota owners in certain counties, depending on the size of the state or county quota, have unlimited rights to transfer their farm quota within the state. Government entities and out-of-state quota owners cannot hold quotas after the 1997 crop. Peanuts marketed outside the quota limits must be crushed for nonedible uses or exported and are called **additional peanuts**.

Peanut price support program — The federal program that supports the **farm price** of peanuts by offering **pricesupport** loans to peanut growers and by placing limits on the amount of peanuts allowed to be sold for domestic food use. Farmers may sell peanuts produced in excess of marketing limits (referred to as the **peanut poundage quota** — one example of a **marketing quota**), primarily for export and crushing into peanut oil and meal. Two **nonrecourse loan** levels are available to producers, depending on the end use and destination of the peanuts sold. Peanuts marketed for food use in the United States (quota peanuts) are eligible for a higher loan reflecting the historical price premium associated with selling into the high-value domestic market. The **FAIR Act of 1996** freezes the quota loan rate for the 1996-2002 crops at \$610 per ton. All other peanuts (called **additional peanuts**) are eligible for a lower level of support (\$175/ton for the 1999 crop) to ensure that the **Commodity Credit Corporation** does not incur any losses on its peanut loan operations. The 1996 Act also requires that

the national **peanut poundage quota** be set at an amount equal to projected “domestic edible” (food) and related uses (excluding seed). For the 1999 crop, the national quota is set at 1.18 million short tons. Other provisions are designed to make the peanut support program operate as a **no cost** program.

Percolation — The movement of water downward and radially through subsurface soil layers, usually continuing downward to groundwater. The rate at which soils permit percolation is a measure of the vulnerability of groundwaters to contamination by surface waters as well as a determinant in the siting of septic fields.

Performance Based Inspection System (PBIS) — A computer-based system used by **USDA’s** meat and poultry inspection agency, the **Food Safety and Inspection Service**. The system organizes inspection requirements, schedules inspection activities, and maintains records of findings for meat and poultry processing operations under federal inspection. PBIS has been at issue because consumer advocates and some inspectors have contended that it is not flexible and “second-guesses” inspectors’ more reliable experience and judgment. **USDA** views it as an objective tool for inspection that enhances rather than undermines inspectors’ roles.

Perishable Agricultural Commodities Act (PACA) of 1930 — P.L. 71-325 (June 10, 1930), as amended, regulates the buying and selling of fresh and frozen fruits and vegetables to prevent unfair trading practices and to assure that sellers will be paid promptly. Both produce sellers and buyers must pay fees for a license in order to do business, and these license fees are the source of funding for a trust program that resolves disputes and protects sellers from non-payment when buyers become bankrupt. Amendments to the Act in 1995 (P.L. 104-48) include a 3-year phase out of the annual license fees for retailers and grocery wholesaler-dealers to be replaced by one-time fee.

Perishable commodities — Farm goods that prior to processing cannot be stored for a substantial period of time without excessive loss through deterioration or spoilage. Examples of perishable commodities are fresh fruits and vegetables, meat and poultry. Most of the commodities purchased by the Agricultural Marketing Service under **Section 32** authority are perishable items.

Permanent law — Legislation that would be in force in the absence of all temporary or short-term laws (e.g., **farm bills**). The **Agricultural Adjustment Act of 1938**, the **Agricultural Act of 1949**, and the **Commodity Credit Corporation Charter Act of 1948** serve as the basic laws authorizing the major **commodity programs**. Technically, each new farm bill (including the **FAIR Act of 1996**) amends the permanent law for a specified period. The FAIR Act of 1996 also repealed some provisions of permanent law and suspended other provisions through 2002. Many programs and activities of **USDA** are authorized by permanent laws that are periodically amended.

Permanent vegetative cover — Trees, or perennial grasses, legumes, or shrubs with an expected life span of at least 5 years. Permanent cover is required on cropland entered into the **Conservation Reserve Program**.

Permitted acreage — The acreage on which a **farm program** participant is permitted to grow a **program crop** after satisfying **acreage reduction** requirements. For example, when a 10% **acreage reduction program** is in effect for wheat, a farmer with a 100-acre wheat base may grow wheat on 90 acres, the permitted acres. Limits on production are eliminated by the **FAIR Act of 1996** through the year 2002.

Persistent pesticides — Pesticides that do not readily break down in the environment. Becoming long-lived components of the ecosystem, these chemicals may have enduring effects at low concentrations or may **bioaccumulate**, posing hazards to higher predators.

Person — An entity defined by **USDA** as being eligible to receive federal **farm program** benefits, subject to annual **payment limitation** constraints. A “person” may be an individual farmer, an individual member of a joint operation, a corporation, a joint stock company, an association, a limited partnership, a trust, an estate, or a charitable organization. A

husband and wife are considered one person for payment limitation purposes. A joint operation is not a person; neither is a cooperative association of producers that markets commodities for producers.

Personal Responsibility & Work Opportunity Reconciliation Act of 1996 — P.L. 104-193 (September 22, 1996) was labeled as a major “welfare reform” initiative. In addition to provisions making major changes to federal cash welfare, medicaid, work, and child care development programs, this law revised the **food stamp program** and several commodity distribution programs (notably the **emergency food assistance program** and the **soup kitchen food bank program**).

Pest — An animal or plant that is directly or indirectly detrimental to human interests, causing harm or reducing the quality and value of a harvestable crop or other resource. Weeds, termites, rats, and mildew are examples of pests.

Pest resistance management (PRM) plans — To protect the continued use of **biopesticides**, the **Environmental Protection Agency** is requiring companies developing transgenic crops (see **genetic engineering**) to submit and implement pest resistance management (PRM) plans as a requirement of product registration. If they are exposed to a toxin excessively, most insect populations can develop resistance, making pest control products less effective. With new **biopesticide** technologies comes the concern that pests will rapidly develop resistance to natural insecticides. A resistance management plan is intended to sustain the useful life of transgenic technology.

Pest scouting — Inspecting a field for pests, including insects, weeds, and pathogens. Pest scouting is a basic component of **integrated pest management** programs. It is used to determine whether pest populations are at levels that warrant control intervention and also may help to determine the most appropriate method of control.

Pesticide — A substance used to kill, control, repel, or mitigate any pest. **Insecticides, fungicides, rodenticides, herbicides**, and germicides are all pesticides. **Environmental Protection Agency** regulates pesticides under authority of the **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)**. In addition, under FIFRA, a substance used as a **plant regulator, defoliant, or desiccant** is defined as a pesticide and regulated accordingly. All pesticides must be registered and carry a label approved by EPA.

Pesticide Data Program (PDP) — A program initiated in 1991 by the **Agricultural Marketing Service** to collect **pesticide** residue data on selected food commodities, primarily fruits and vegetables. PDP data are used by the **Environmental Protection Agency** to support its dietary **risk assessment** process and pesticide **registration** process, by the **Food and Drug Administration** to refine sampling for enforcement of tolerances, by the **Foreign Agricultural Service**, to support export of U.S. commodities in a competitive global market, by the **Economic Research Service** to evaluate pesticide alternatives, and by the public sector to address food safety issues.

Pesticide Recordkeeping Program (PRP) — Authorized by the **FACT Act of 1990**, the program requires that private pesticide applicators keep records of the pesticides they use in agricultural production and that the records be surveyed to provide a database on restricted-use pesticides.

PETA — People for the Ethical Treatment of Animals.

PFC — **Production flexibility contract**.

Pfiesteria piscicida — A microbe that has been linked to massive fish kills in Maryland, Delaware and North Carolina. Some scientists believe *pfiesteria*'s growth is fostered by nutrients such as **nitrogen** and **phosphorus** from air pollution, cities, suburbs, sewage plants and farms. Both nitrogen and phosphorus are concentrated in chicken manure, which is spread liberally on farmland as **fertilizer** in **watersheds** adjoining the affected rivers. While there is no proven direct connection, the farm community is involved in efforts to identify the causal linkages and remedy the problem.

pH — An expression of the intensity of the basic or acidic condition of a liquid or of soil; the logarithmic scale ranges from 0 to 14, where 0 is the most acid, 7 is neutral, and above 7 is alkaline. Natural waters usually have a pH between 6.5 and 8.5. Plants have differing tolerances for acidity and alkalinity.

Phosphorus — An essential nutrient for plants and animals that is commonly applied to crops as a phosphate fertilizer. Phosphorus can contribute to the **eutrophication** of lakes and other water bodies. Sources of excess phosphorus include sewage and agricultural runoff.

Phytoremediation — The systematic use of plants to treat environmental contamination. It is being investigated as a potential low-cost technology to help meet environmental regulations. For example, it has been discovered that young seedlings of Indian mustard (*Brassica juncea*) grown in aerated water are very effective at removing toxic metals from water.

Phytosanitary — See **sanitary and phytosanitary standards (SPS)**.

PIK — **Payment-in-kind**.

PILT — **Payments in lieu of taxes**.

PIN — Pesticide information network.

Plant hardiness zones — The **USDA** has divided North America into 11 hardiness zones based on average annual minimum temperatures. Horticulturalists and nurseries rate plants by their hardiness; the hardiness zone maps can then be used to determine the likely survivability of particular plant **species** and varieties according to one's local growing area.

Plant quarantine — A technique for insuring disease (and pest) free plants by isolating them during a period while performing tests for latent diseases. Often used when importing new cultivars.

Plant Quarantine Act — Originally enacted in 1912, this Act gives the **Animal and Plant Health Inspection Service** authority to regulate the importation and interstate movement of nursery stock and other plants that may carry pests and diseases that are harmful to agriculture. This authority is particularly important to the agency's ability to prevent or limit the spread of harmful **invasive species** within or to a state or region of the United States.

Plant-pesticide — As proposed by the **Environmental Protection Agency** (November 23, 1994), plant-pesticides are all substances responsible for pest resistance in plants, as well as the genes needed for production of these substances. EPA has further proposed that plant-pesticide traits introduced into plants using **recombinant DNA** techniques should be registered under legal requirements of **FIFRA** and **FFDCA**. Exempt from tolerance requirements would be those defense substances and genes evolved naturally or transferred to the plant by traditional plant breeding methods.

Plant regulator — A chemical that affects the physiological behavior of plants, for example through accelerating or retarding the rate of growth or maturation of produce. Typically the definition of plant regulator excludes nutrients. Plant regulators must be registered as **pesticides** under the **Federal Insecticide, Fungicide, and Rodenticide Act**.

Plant Variety Protection Act of 1970 — P.L. 91-577 (December 24, 1970) was enacted to provide patent-like protection for new non-hybrid seed varieties. The ultimate goal was to create an incentive for public and private research on new commercial plant varieties by making it possible for scientists to benefit financially from developing them. The Plant Variety Protection Act (PVPA) Amendments of 1994 (P.L. 103-349, October 6, 1994) made the law consistent with the International Convention for the Protection of New Varieties of Plants (UPOV) of March 19, 1991, to which the United States is a signatory.

In February 1999, the 1994 PVPA amendments formally were accepted by UPOV as being in conformance with the International Convention. **USDA** rather than the Patent and Trademark Office administers the law.

PLD — Paid land diversion. See **paid diversion**.

PMA — Produce Marketing Association.

PMO — **Pasturized Milk Ordinance**.

Point — A measure of price change equal to 1/100 of one cent in most **futures contracts** traded in decimal units. In grains, it is one cent; in T-bonds, it is one percent of par.

Point source pollution — Pollutants that are discharged or emitted from discrete “point” sources, such as pipes and smokestacks. Both the **Clean Water Act** and the **Clean Air Act** focus control requirements on point sources and both require permits for major sources of discharges from point sources. While much agricultural pollution is **nonpoint source**, some agricultural activities are affected: for example, feedlots of over 1000 **animal units** are considered point sources requiring permits under the **Clean Water Act**. However, irrigation **return flows**, although considered point sources, are expressly exempted from the permit requirement.

Pollution — Alteration of the environment, as through the introduction of hazardous or detrimental substances, heat, or noise whose nature, location, or quantity produces adverse health or environmental effects. Under Section 502 of the **Clean Water Act**, for example, pollution means the man-made or man-induced alteration of the physical, biological, chemical, and radiological integrity of water.

Pork bellies — One of the major cuts of the hog carcass that, when cured, becomes bacon. **Futures contracts** for pork bellies are traded in the futures market.

Posted county price (PCP) — This price is calculated for wheat and feed grains for each county by the Farm Service Agency. The PCP reflects changes in prices in major terminal grain markets (of which there are 18 in the country), corrected for the cost of transporting grain from the county to the terminal. It is utilized under the **marketing loan repayment provisions** and **loan deficiency payment** provisions of the wheat and feed grains **commodity programs**. Rice and cotton use an **adjusted world price** as the proxy for local market prices.

Postharvest — Refers to activities in the food and fiber sector that occur after agricultural products are sold from, or leave, the farm or ranch. In total, about 75% of the retail cost of the **market basket** of foods is added in postharvest activities.

Postmortem inspection — As used in the meat and poultry inspection program, the phrase refers to the inspection that **Food Safety Inspection Service** inspectors are required to conduct of all animal carcasses immediately after they are killed.

Poultry Products Inspection Act of 1957 — P.L. 85-172 (August 28, 1957), as amended by the Wholesome Poultry Products Act of 1968 (P.L. 90-492, August 18, 1968), requires **USDA** to inspect all “domesticated birds” when slaughtered and processed into products for human consumption. The USDA has defined, by regulation, domesticated birds as chickens, turkeys, ducks, geese, and guineas. The primary goals of the law are to prevent adulterated or misbranded poultry and products from being sold as food, and to ensure that poultry and poultry products are slaughtered and processed under sanitary conditions. These requirements also apply to products produced and sold within states as well as to imports, which must be inspected under **equivalent** foreign standards.

Poundage quota — A quantitative limit on the amount of a commodity that can be marketed (also called a **marketing quota**) under the provisions of a **permanent law**. Once a common feature of **price support** programs, this supply control mechanism now only restricts the production and/or sale of tobacco and peanuts.

Poverty guidelines — These are monthly or annual income amounts that are used to help determine eligibility for a number of federal food assistance and other programs. They are derived from the income poverty thresholds used by the Census Bureau

in counting the number of poor persons, differ by household size, are adjusted upward for Alaska and Hawaii, are published by the Department of Health and Human Services early each spring, and are updated annually for overall inflation. For example, 130% of the income poverty guidelines is the limit for food stamp and free school lunch income eligibility. Sometimes referred to as the Office of Management and Budget (OMB) poverty guidelines.

Poverty thresholds — For statistical purposes (e.g., counting the poor population), the Census Bureau uses a set of annual income levels — the poverty thresholds — slightly different than the federal **poverty guidelines**. As with the **poverty guidelines**, they represent a federal government estimate of the point below which a household of a given size has cash income insufficient to meet minimal food and other basic needs. They were developed in the 1960s, based largely on estimates of the minimal cost of food needs, to measure changes in the poor population. The thresholds form the basis for calculating the **poverty guidelines**, and, like them differ by household size and are adjusted annually for overall inflation. But, they do not include different levels for Alaska and Hawaii, and include separate levels for small elderly households.

PPB — Parts per billion.

PPI — **Prices Paid Index**.

PPI — **Producer Price Index**.

PPIA — **Poultry Products Inspection Act**.

PPM — Parts per million.

PPT — Parts per trillion.

Prairie potholes — A type of wetland that is at the center of a shallow depression characteristic of glaciated areas in the Upper Midwest (North Dakota especially). Many potholes are wet during only a portion of the year, usually early spring. They provide important nesting habitat for migratory waterfowl, and were designated as a national **priority area** by the Secretary of Agriculture under the **Conservation Reserve Program**.

Precision farming — Farmers use global positioning (GPS) technology involving satellites and sensors on the ground and intensive information management tools to understand variations in resource conditions within fields. They use this information to more precisely apply fertilizers and other inputs and to more accurately predict crop yields.

Preferential trade agreements — Agreements among a group of countries to extend special trading advantages, usually tariff rates that are lower than most-favored nation rates. The U.S.'s **Caribbean Basin Initiative** and the EU's Lome Convention which provides preferential access for exports of former EU member countries' colonies in Africa, the Pacific and the Caribbean are examples of preferential trade agreements.

Preharvest — Refers to activities on the farm or ranch that occur before crop or livestock products are sold. "Preharvest food safety activities," for example, is a term often used to describe **USDA's** efforts, through research and cooperative work, to foster changes in on-farm production that can reduce public health risks in live animals before they are sent to slaughter.

Preproduction expenses — Expenses incurred prior to the period when a farm activity begins producing, primarily raising orchard trees or breeding animals.

Prevented planting acreage — Land on which a farmer intended to plant a **program crop** or insurable crop, but was unable to because of drought, flood, or other natural disaster. Used in the calculation of disaster payments and crop insurance **indemnity payments**.

PRIA — **Public Rangelands Improvement Act**.

Price elasticity of demand — The relationship between the change in the price of a commodity and the corresponding change in the quantity that is sold. If a small change in the price is accompanied by a relatively large change in the quantity sold, demand is said to be elastic (responsive to price changes). But if a large change in the price is accompanied by a small change in the quantity sold, demand is said to be inelastic. The demand for many farm products is relatively price inelastic. As a result of low price elasticity of demand, shifts in supply can have large impacts on prices. For example, the presence of surpluses results in disproportionately large price declines, and conversely shortages result in large price increases. For these reasons, agriculture often is described as an inherently unstable industry.

Price index — Current price expressed as a proportion to the same price in an earlier time period, commonly called the base period. Monthly price indexes computed by the **National Agricultural Statistics Service** are the index of prices received by farmers and the index of prices paid by farmers for commodities and services, interest, taxes, and farm wage rates. The ratio of these two indexes is referred to as the **parity ratio**.

Price support — Programs operated by **USDA** that are intended to raise **farm prices** when supply exceeds demand and prices are unacceptably low. Support usually is achieved through **nonrecourse loans**, payments, and purchases. Some commodities are designated in the law to receive mandatory support; others may be supported at the discretion of **USDA**. Over time, policy changes have shifted toward farm income support and away from commodity price support.

Prices paid index — An index that measures changes in the prices paid for goods and services used in crop and livestock production and family living. The production component of the index accounts for over 65% of the total, and family living expenses represented by the CPI-U account for less than 20% of the index. The remaining components are interest charges on farm real estate and non-real estate debt, taxes payable on farm real estate, and wage rates paid to hired farm labor. **NASS** currently publishes the index on a 1990-92=100 base. Used in calculating the federal **grazing fee**, among other purposes. The index of prices paid on a 1910-14=100 base is called the parity index and is used in calculating the **parity ratio**.

Prices received index — An index that measures changes in the prices received for crops and livestock. **NASS** currently publishes the index on a 1990-92=100 base. A ratio of the prices received index to the **prices paid index** on the 1990-92 base that is greater than 100% indicates that farm commodity prices have increased at a faster rate than farm input prices. When the ratio is less than 100%, farm input prices are increasing a more rapid pace than farm commodity prices. The prices received index and the prices paid index are used to calculate the **parity ratio**.

Prime farmland — Land that is best suited to and available for the production of food, feed, forage, fiber, and oilseed crops. It can be cropland, pastureland, rangeland, forestland, or other land. It has the soil quality, growing season, and moisture needed to produce high yields of crops each year economically, if managed according to acceptable farm practices. Prime farmland produces the highest yields with minimal expenditure of energy and economic resources and does so with the least damage to the environment. Of the 334 million acres of prime farmland, 216 million are in cropland use, according to the 1992 **national resources inventory**. See **unique farmland**.

Prior appropriations — The system of water allocation used primarily in the arid western United States, where water is scarce. Under this system, earlier claims have priority over later claims, and claims are associated with specific volumes of water. Rights to water can be lost if they are not used.

Prior converted wetland — Under the **swampbuster program**, these are **wetlands** that were converted to cropland before swampbuster was enacted on December 23, 1985, and meet wetland criteria for saturated soils or water-loving plants. Under swampbuster, there are no restrictions on either drainage maintenance or additional drainage on prior converted wetlands, which are estimated to total more than 50 million acres.

Privacy (information) — The right to control the disclosure of personal information; often referred to as confidentiality, but more accurately might be called data protection. Many landowners, including farmers, have grown concerned that information about the condition of their land could adversely affect market and other values.

Private grazing land lease rate index — See **forage value index**.

Private voluntary organization (PVO) — A nongovernmental, nonprofit organization that provides economic and social assistance to people in need, often in foreign countries. PVOs play an important role, along with cooperatives, in distributing U.S. food aid and implementing development projects under **P.L. 480** Title II.

PRN — Pesticide registration notice.

Producer subsidy equivalent (PSE) — A measure of the value of monetary transfers to agricultural producers resulting from agricultural policies in a given year. It includes both transfers from consumers of agricultural products (through domestic market **price supports**) and transfers from taxpayers (through budgetary or tax expenditures). See **consumer subsidy equivalent (CSE)**.

Production contract — These contracts specify who supplies the production inputs, the quality and quantity of the commodity to be produced, and the compensation for the producer. Under some livestock production contracts, the farmer is paid to provide housing and care for the animals until they are ready for market, but the contractor actually owns the animals. In 1997, according to the **USDA**, about 70% of the value of poultry production was under production contracts, 33% of hogs, and 14% of cattle. See **marketing contract**.

Production Credit Association (PCA) — **Farm Credit System** institutions that have direct lending authority to make short and intermediate term loans to eligible retail customers.

Production expenses — Measures the aggregate business cost of farming. The two main components are current farm operating expenses and overhead costs. Farm production expenses are accounted for differently in calculating **farm income** measures. Only production expenses paid in cash are deducted from gross farm income to derive **net cash farm income**. **Gross farm income** and **net farm income** include both cash and noncash production expenses. Non-cash expenses include such overhead costs as charges for depreciation and other capital consumption associated with farm buildings and other structures, motor vehicles, farm machinery and equipment, and expenses associated with farm operator dwellings.

Production flexibility contract — A 7-year contract covering crop years 1996-2002, authorized by the **FAIR Act of 1996** between the **CCC** and farmers, which makes fixed income support payments in place of the previous variable target price **deficiency payments**. Farmers are given production flexibility and diversification options on their **contract acres** not previously allowed on **base acres**. Each farm's **total payment** is the **payment rate** times the **payment quantity** for participating base acres. In exchange for annual fixed payments, the owner or operator must agree to comply with the applicable conservation plan for the farm, the wetland protection requirements currently in law, and the constraints on growing fruits and vegetables on contract acres. Land enrolled in a contract must be maintained in an agricultural or related activity. The law states that not more than \$35.6 billion will be paid over the 7-year period, in declining annual amounts from \$5.3 billion in FY1996 to \$4.0 billion in FY in 2002. The annual payments are allocated among commodities similar to historical deficiency payments, with 53.6% going to feed grains, 26.3% for wheat, 11.6% for upland cotton, and 8.5% for rice.

Productivity — A measure of technical efficiency, typically expressed as the added output for an additional unit of input or the average output per unit of input, i.e., labor, land, capital productivity.

Program crops — Crops eligible for **deficiency payments** under **commodity program** provisions that ended in 1995. These were wheat, **feed grains**, cotton, and rice. These same crops are now called **contract commodities** because they are

eligible for **production flexibility contract** payments. Other commodities receiving **price support** include extra long staple cotton, soybeans and other oilseeds, tobacco, peanuts, sugar, and milk.

Program yield — The farm commodity yield of record, determined, in general, by averaging the yield of a particular commodity for the past 5 years, dropping the high and low years. This yield was used in calculating **deficiency payments** under prior laws, for example, and for calculating **contract payments** for **production flexibility contracts** under the **FAIR Act of 1996**. Program yields remained frozen at their 1985 levels from that date forward.

Projected yield — The number of bushels (or pounds or hundredweight) per acre that, based on current weather estimates and other factors, **USDA** analysts estimate farmers will harvest.

Promotion program — Any program by an approved **commodity promotion** board or **marketing order**, including paid advertising, to present a favorable image of an agricultural commodity to the public to stimulate sales and improve the competitive position of the commodity in the domestic marketplace. Funds are collected through a mandatory **check-off** on marketings to finance the promotion activities.

Prorate — A quantity provision in a fruit or vegetable **marketing order** that is intended to even out weekly shipments (or shipments for some other specified periods of time); it aims to prevent too much of the regulated commodity from entering the commercial market at the same time and thereby depressing prices.

PRV — The **pseudorabies** virus.

PSA — **Packers and Stockyards Act**.

PSE — **Producer subsidy equivalent**.

Pseudorabies — A disease of swine that can cause severe economic losses due to reproductive problems and fatal infection of other domestic livestock. The **Animal and Plant Health Inspection Service** began a voluntary, cooperative federal-state-industry pseudorabies eradication program in 1989 with a target completion date at the end of 2000. APHIS accelerated the program in January 1999 as part of a **USDA**-wide effort to combat historically low market prices for hogs by reducing the size of the U.S. herd. The program includes herd testing and surveillance, and it pays producers a fair market value for their hogs if they decide to euthanize an infected herd.

Public elevators — Grain elevators in which bulk storage of grain is provided for the public for a fee. Grain of the same grade but owned by different persons is usually mixed or commingled as opposed to storing it “**identity preserved**.” Some elevators are approved by exchanges as “regular” for delivery on futures contracts.

Public lands — As defined in the **Federal Land Policy and Management Act**, public lands are any land and interest in land outside of Alaska owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management. In common usage, public lands may refer to all federal land no matter what agency has responsibility for its management or may refer even to state- and local municipality-owned lands.

Public Rangelands Improvement Act of 1978 (PRIA) — P.L. 95-514 (October 25, 1978) defines the current grazing fee formula and establishes rangeland monitoring and inventory procedures for **Bureau of Land Management** and **Forest Service** rangelands. The **National Grasslands** are exempt from PRIA.

Puerto Rico Block Grant — A federal **nutrition assistance grant program** provided in lieu of the regular food stamp program in Puerto Rico.

Purchase of development rights (PDR) — The acquisition of property development rights through voluntary sale by the landowner to a government agency or **land trust**. The government agency or land trust acquiring development rights typically restricts future uses of the land to farming or open space.

Purchaser road credits — Credits granted to purchasers of timber in the national forests in exchange for the construction of permanent roads specified in the timber sale contract. The amount of the credits is the **Forest Service's** estimate of construction costs, and the credits can be used to pay for timber harvested. Occasionally, when **stumpage prices** are at or near the **base rates**, some or all of the credits cannot be used, and are then termed ineffective road credits. The authority to grant credits was terminated in the FY1999 appropriations act (P.L. 105-277, October 21, 1998).

Put option — An **option contract** to sell a **futures contract** at an agreed price and time at any time until the expiration of the option. A put option is purchased to protect against a fall in price. The buyer pays a premium to the seller of this option. The buyer has the right to sell the futures contract or enter into a **short** position in the futures market if the option is exercised. See **call option**.

PVO — **Private voluntary organization**.

QA/QC — Quality assistance / quality control.

QR — **Quantitative restriction**.

QTV — **Qualified Through Verification**.

Qualified Through Verification — An **AMS** pilot program (since 1996) for the fresh-cut produce industry, enabling them to gain official certification of the wholesomeness of their products to improve marketing opportunities. Under this voluntary, fee-for-service program, AMS, using **HACCP**-based principles, first inspects the company's facilities to ensure they are properly designed, are consistent with the **Food and Drug Administration's** good manufacturing practices, have on-site microbiological testing, follow accepted sanitary operating procedures, and so forth. Ongoing monitoring, including periodic unannounced site visits, sampling, and audits by AMS are intended to ensure that the firm maintains its QTV status, which then authorizes it to use an official AMS mark, the QTV shield, on product labels and in advertisements.

Quarantine — A restraint on importation of certain animals or plants from areas where pests or contagious diseases are endemic — or isolation of animals or plants suspected of carrying pests or diseases — to prevent the spread of those pests and diseases. States as well as the federal government may impose quarantines or may operate quarantine facilities. See **Plant Quarantine Act**.

Quantitative restrictions, trade — Quantitative restrictions are limitations on the quantity or value of a product that may be permitted to enter a country. They are probably the most familiar of the **nontariff barriers** and include **quotas**, **embargoes**, restrictive licensing, and other means of limiting imports. The **Uruguay Round** Agreement on Agriculture requires the conversion of quantitative restrictions to **bound tariffs** and **tariff rate quotas**.

Quotas, import — A quantitative limit placed on the importation of specific commodities. The protection afforded by quotas is more certain than can be obtained by imposing import **duties** as the effect of the latter will depend on the price elasticities of the imported commodities. Quotas, like **tariffs**, can also be used to favor preferred sources of foreign supply. Quotas may be specified as an absolute limit or changed from year to year in response to changes in domestic supply and demand.

R&D — Research and development.

Range Betterment Fund — Money collected from livestock grazing on federal lands and used for **rangeland** improvements. The **Bureau of Land Management** calls these funds Range Improvement Funds and uses them solely for

labor, materials, and final survey and design of projects to improve rangelands. The **Forest Service** calls these funds Range Betterment Funds and uses them for planning and building rangeland improvements.

Range Improvement Fund — See **Range Betterment Fund**.

Rangeland — Land on which the natural potential (climax) plant cover is principally native grasses, grasslike plants, and shrubs. It includes natural grasslands, savannahs, certain shrubs and grasslike lands, most deserts, tundra, alpine communities, coastal marshlands, and wet meadows. It also includes lands that are re-vegetated naturally or artificially and are managed like native vegetation. The United States has 399 million acres of non-federal rangeland, about 30% of all non-federal rural lands, according to the 1992 National Resources Inventory. The BLM manages approximately 167 million acres of federal rangelands, and the Forest Service manages approximately 95 million acres of federal rangelands.

Ratite — A family of large flightless birds that include ostriches, emus, and rheas, which U.S. farmers are beginning to domesticate and raise for food. Ratite inspection has become a policy issue because producers want **USDA** to include them under the mandatory meat and poultry inspection laws. If plants that slaughter and process these birds were under mandatory inspection, most of the cost would be covered by taxpayers. Currently, such plants must pay for USDA inspection on a fee-for-service basis, under a voluntary ratite inspection program instituted in 1995 under authority of the **Agricultural Marketing Act of 1946**.

Raw agricultural product — The **Federal Food, Drug, and Cosmetic Act** defines this term as “any food in its raw or natural state, including all fruits that are washed, colored, or otherwise treated in the unpeeled natural form prior to marketing.” The nonregulatory definition generally means any agricultural commodity that has undergone little or no processing.

RBS, RBCS — **Rural Business-Cooperative Service**.

RC — Regional conservationist.

RC&D — **Resource Conservation and Development Program**.

RCA — **Soil and Water Resource Conservation Act of 1977**.

RCAP — **Rural Community Advancement Program**.

RCD — Resource Conservation District.

RCRA — **Resource Conservation and Recovery Act**.

RD — Rural development.

RD&D — Research, development and demonstration.

RDA — **Recommended dietary allowance**.

rDNA — **Recombinant DNA**.

REC — **Rural electric cooperative**.

Reclamation — The process of rehabilitating disturbed lands, or converting unproductive lands to productive uses. The term is also used for the process of recycling or reusing water. In the context of the **Reclamation Act** and **reclamation law**, it means putting arid lands to use through irrigation.

Reclamation Act of 1902 — P.L. 57-161 (June 17, 1902), as amended, appropriated the receipts from the sale and disposal of public lands and resources in 17 western states to the construction of irrigation works for the **reclamation of arid lands**. Amendments made by the **Reclamation Project Act of 1939** gave the **Department of the Interior**, among other things, the authority to amend repayment contracts and to extend repayment for not more than 40 years. Amendments made by the **Reclamation Reform Act of 1982** (RRA) eliminated the residency requirement provisions of reclamation law, raised the **acreage limitation** on lands irrigated with water supplied by the **Bureau of Reclamation**, and established and required **full-cost** rates for land receiving water above the acreage limit.

Reclamation fund — A special fund established by Congress under the **Reclamation Act of 1902**, as amended, for receipts from the sale of **public lands** and timber, proceeds from the **Mineral Leasing Act**, and certain other revenues. Congress appropriates money from this fund for the investigation, construction, operation, and administration of Bureau of Reclamation projects. Collections from water users for payments made on the reimbursable costs of the federal projects are also returned to the fund.

Reclamation law — The body of law beginning with the **Reclamation Act of 1902** that governs investigation, construction, and operation of Bureau of Reclamation projects.

Recombinant DNA (rDNA) — The technique of isolating DNA molecules and inserting them into the DNA of a cell (“recombining DNA”). Also known as **genetic engineering**.

Recommended dietary allowances (RDAs) — Levels of essential nutrients that, on the basis of scientific knowledge, are judged by the Food and Nutrition Board (FNB of the Institute of Medicine at the **National Academy of Sciences**), to be adequate to meet the known nutrient needs of practically all healthy persons. They are designed to provide a safety factor appropriate for each nutrient and exceed the actual requirements of most persons whose individual nutrient needs vary.

Recourse loan program — Under the **FAIR Act of 1996**, recourse loans are available to producers of high moisture corn and seed cotton, dairy processors, and sugar processors. The commodity is pledged as security, but in contrast to **nonrecourse loans**, the borrower must repay the loan with interest within a specified period. The recourse loan program for butter, nonfat dry milk, and cheese begins in 2000. Loans for sugar are recourse when the tariff-rate import quota is below 1.5 million short tons. However, such loans revert to nonrecourse status if the **tariff-rate quota** is equal to above 1.5 million short tons. The **honey recourse loan program** and the **mohair recourse loan program** are authorized for 1998 production only.

Recycle / reuse — Minimizing waste generation by recovering and reprocessing usable products that might otherwise become waste (i.e., recycling of aluminum cans, paper, and bottles, etc.).

Reduced price lunch (or breakfast, supper, snack) — A federally reimbursable meal (or snack) served to a child who applies for and qualifies because the family’s income is between 130% and 185% of the federal income poverty level. Schools may not charge more than 40 cents for reduced price lunches, or more than 30 cents for reduced price breakfasts.

REE — Research, education and economics (a mission area within **USDA**).

Reentry interval — The period of time immediately following the application of a pesticide during which unprotected workers should not enter a field.

Referendum — In agriculture, referendum generally refers to a vote by farmers on whether to approve or disapprove a **farm program**, such as mandatory production or marketing controls, **assessments** for generic **commodity promotion**, or **marketing orders**.

Regionalization — Countries generally have prohibited imports of a foreign agricultural product if it has been associated with an unwanted pest or disease in the exporting country. Until recently, importing countries would not permit any of that product from the exporting country, even if it came from a region that did not have the disease or pest. Regionalization is a fundamental principle in the **Sanitary and Phytosanitary** provisions of recent trade accords. It provides for the acceptance of such imports if the exporting country can demonstrate that they are from a disease-free or a pest-free area.

Registrant — Any manufacturer or formulator of a **pesticide** who obtains registration for an **active ingredient** or product.

Registration — The **Environmental Protection Agency** approval of a new **pesticide** for specific uses before it can be sold or distributed in the United States. Under the **Federal Insecticide, Fungicide, and Rodenticide Act**, the **Environmental Protection Agency** is responsible for registering (pre-market licensing) pesticides based on scientific evidence that the approved use will result in no unreasonable adverse effects on human health or the environment when applied according to approved label directions. The label on a registered pesticide specifies the legal obligations of the user in terms of uses, timing, and rates of application.

Regulatory Flexibility Act (RFA) — P.L. 96-354 (September 19, 1964) requires federal agencies to consider the special needs and concerns of small business entities whenever they engage in rulemaking subject to notice and comment requirements of the **Administrative Procedure Act** or other laws. In most cases, when an agency publishes a proposed rule in the **Federal Register**, it must prepare and publish a regulatory flexibility analysis describing the impact on small businesses.

Remote sensing — The act of detecting objects when the sensor is not in direct contact; commonly refers to using aerial photographs to observe conditions on the Earth's surface. In agriculture, this technology can be used to determine what plants are being grown and their condition.

Renewable resources — Natural resources, sometimes called flow resources, that replenish themselves within time limits that permit sustained use, in contrast to **nonrenewable resources**. Congress recognized the renewable nature of resources managed by the **Forest Service** and **Bureau of Land Management** (including timber, livestock forage, recreation, water, and wildlife and fish) by requiring both agencies to follow the principles of **multiple use** and **sustained yield**.

Repayment contract — A contract between a water user's organization and the Bureau of Reclamation by which the organization obligates itself to repay a share of the reimbursable construction and other costs (not all construction costs are reimbursed by water users) of a Bureau project in installments determined in accordance with **reclamation law** in exchange for delivery of water.

Reregistration — The reevaluation and reapproval by the **Environmental Protection Agency** of **pesticides** originally registered prior to 1984. The purpose of reregistration is to evaluate and approve the older formulations against modern scientific and regulatory standards. The process is scheduled to be completed on the older **active ingredients** by the end of 2002.

Reserve pool — A quantity provision in a fruit or vegetable **marketing order** that requires that some marketable supplies be withheld from the fresh market to be used instead in a so-called secondary market such as for frozen or processed forms, for a nonfood use, or stored for sales in a future **marketing year**.

Residual supplier — A country that supplies the world market only after importers have met their initial needs from preferred suppliers. A residual supplier is not initially competitive because of higher prices or lower quality. The United States used to be considered a residual supplier of grains because its commodity support programs kept U.S. grain prices higher than those of competing exporters.

Resistance, pesticide — The evolutionary capacity of pests exposed to a pesticide to develop resistance to that pesticide. Some **genetically engineered** crops now being marketed are accompanied by **pest resistance management plans** to prevent or substantially retard the development of resistance.

Resource Conservation and Development Program (RC&D) — The RC&D program, initiated in 1962 under authority of **Food and Agriculture Act of 1962** (P.L. 87-703), assists multi-county areas in enhancing conservation, water quality, wildlife habitat, recreation and rural development. Work in each area is coordinated by a council. At present, 269 areas have been approved; they cover 60% of the private land in the country.

Resource Conservation and Recovery Act (RCRA) — P.L. 94-580 (October 21, 1976), as amended, authorizes the **Environmental Protection Agency** to regulate solid and hazardous wastes. The Act defines solid and hazardous waste, authorizes EPA to set standards for facilities that generate or manage hazardous waste, and establishes a permit program for hazardous waste treatment, storage, and disposal facilities. RCRA made such comprehensive amendments to the Solid Waste Disposal Act (P.L. 89-272) that it became the name of reference. To date, production agriculture has not fallen under RCRA regulations or is explicitly exempted (i.e., solid or dissolved materials in irrigation water return flows).

Resource Management Plan (RMP) — A BLM planning document, prepared in accordance with Section 202 of the **Federal Land Policy and Management Act**. The plan contains guidelines for making resource management decisions for specific areas managed by BLM, known as resource areas.

Restricted-use pesticides — A **pesticide** may be classified for restricted use if it requires special handling because of its toxicity. These may be applied only by trained, certified applicators or those under their direct supervision.

Return flow — Surface and subsurface water that leaves the field following application of **irrigation** water. While irrigation return flows are a “**point source**,” they are expressly exempted from permit requirements under the **Clean Water Act**.

Revenue Assurance (RA) — A form of **revenue insurance** that protects a grower of an insurable crop whenever low prices, low yields, or a combination of both causes revenue to fall below a guaranteed level selected by the producer. It differs from other revenue insurance programs in that it allows a farmer to use the **posted county price**, rather than a national price, in determining a target level of revenue.

Revenue insurance — A **crop insurance** program that provides coverage to producers against lost revenues (or incomes) caused by low prices, low yields, or a combination of low prices and low yields. An indemnity is paid to a producer when any combination of yield and price results in revenue that is less than a pre-specified revenue guarantee. The **FAIR Act of 1996** mandates a **USDA** pilot program for crop years 1997-2000 under which producers of feed grains, wheat, soybeans, and other crops in specified areas may elect to receive insurance against loss of revenue. The two largest pilot programs to date are the **Crop Revenue Coverage (CRC)** program and the Income **Protection (IP)** program. The two programs are similar, except that the CRC allows farmers to insure their revenue at either planting-time prices or harvest prices, whichever is higher. The full cost of the premium associated with CRC and IP is paid by the participating farmer.

Revised universal soil loss equation (RUSLE) — Revisions to the **universal soil loss equation** implemented in the mid 1990s to more accurately predict soil **erosion** caused by water. It includes the same factors as the earlier formula; climate, soils, topographic conditions, and the degree to which the use and management of the soil reduces erosion. But it takes advantage of new knowledge about these relationships and the capabilities of computer technology. The comparison between predicted erosion and **T-value** is important in making and carrying out **conservation plans** and achieving **conservation compliance**.

Revolving loan program — A program that uses the repayments of existing loans to make additional loans to qualified borrowers. Initial capitalization of a revolving loan fund may be derived from federal appropriations or contributions from other sources.

RFA — Regulatory Flexibility Act.

RFF — Resources for the Future.

RHS — Rural Housing Service.

RIA — Regulatory impact analysis/assessment.

Right-to-farm laws (nuisance) — Right to farm laws deny nuisance suits against farmers who use accepted and standard farming practices, even if these practices harm or bother adjacent property owners or the general public. Agricultural nuisances may include noise, odors, visual clutter and dangerous structures.

Rill erosion — An **erosion** process in which numerous small channels, typically a few inches deep, are formed. It occurs mainly on recently cultivated soils or on recent cuts and fills.

Riparian — Pertaining to or situated on or along the bank of a stream or other body of water. Often referred to in the context of cattle grazing and protection of streams for fish and wildlife habitat, and water quality purposes. **Riparian rights** refers to the entitlement of a land owner to certain uses of water on or bordering the property, including the right to prevent diversion or misuse of upstream waters (generally a matter of state law).

Riparian buffer — A strip of vegetation along the bank of a body of water which slows the rate of flow of runoff from adjoining uplands, causing sediment and other materials to fall out onto the land before the runoff enters and pollutes the body of water.

Riparian rights — The system of water allocation used in the humid eastern portion of the United States. Water may be used only by riparian landowners and it is recognized that all users will experience shortages periodically. In contrast with the **prior appropriations** system used in the arid West, water is not acquired by use, and access to it cannot be lost by lack of use.

Risk assessment — The qualitative and quantitative evaluation of risks posed to health or the environment that arise from an activity, chemical use, or technology. The process includes describing potential adverse effects, evaluating the magnitude of each risk (e.g., the toxicity of a chemical), estimating potential exposure to the chemical or other hazard, estimating the range of likely effects given the likely exposures, and describing uncertainties.

Risk-benefit analysis — Comparison of the short- and long-term risks to the overall societal benefits of an activity, chemical use, or technology. When risks and benefits are expressed in monetary terms, this is effectively cost-benefit analysis. Both the **Federal Insecticide, Fungicide, and Rodenticide Act** and the **Toxic Substances Control Act** direct the **Environmental Protection Agency** to base regulatory decisions on a risk-benefit or cost-benefit basis.

Risk management — The process of deciding whether and how to manage risks. Public risk management requires consideration of legal, economic, and behavioral factors, as well as environmental and human health effects of each management alternative. Management may involve regulatory and non-regulatory responses. For example, characterizing the risk to farm workers of entering a field after application of a particular pesticide is **risk assessment**; promulgating **reentry** standards is risk management. The federal government has played an active role over the years in helping farmers manage risk.

Two major risks faced by agricultural producers are production risks and price risks, and the **USDA** has assisted with federal **crop insurance** and **commodity programs**. The **Risk Management Agency** is now helping farmers utilize other risk management tools.

Risk Management Agency — An independent office within **USDA** that is responsible for the supervision of the **Federal Crop Insurance Corporation**; the administration and oversight of the federal **crop insurance** program and any pilot or other programs involving **revenue insurance**; the use of the **futures contracts** to manage farm risk and support income.

RMA — **Risk Management Agency**.

RMP — **Resource Management Plan**.

Rodenticide — A **pesticide** used to destroy, control, or deter mice and rats or other rodent pests from damaging food, crops, etc.

Rotational (intensive) grazing — Pasturing system that allows short periods of heavy use, followed by a recovery period; it allows the forage to be used more fully and effectively.

Roundup Ready soybeans (RR soybeans) — **Genetically engineered** glyphosate-tolerant soybeans. Roundup is the trade name for glyphosate, a broad-spectrum **herbicide**. Farmers planting RR soybeans pay more for the seed, must use certain herbicide application practices, and may not save and use their own seed as part of a **pesticide resistance management plan**. The benefits include a reduction in the number of herbicide applications, with potential savings in both chemical and labor costs.

RPA assessment / program — As required by the **Forest and Rangeland Renewable Resources Planning Act of 1974**, the **Forest Service** makes a periodic (every 10 years) national assessment of **renewable resource** supplies, demands, and trends, to identify potential problems and opportunities. In response to the problems and opportunities identified in the assessment, the Forest Service prepares a periodic (every 5 years) national strategic program plan.

RPA — **Forest and Rangeland Renewable Resources Planning Act of 1974**.

RPAR — Rebuttable presumption against registration.

RRA — **Reclamation Reform Act**.

RTB — Rural Telephone Bank.

RUAP — Rural Utilities Assistance Program.

Ruminant — An animal with a stomach that has four compartments, and a more complex digestive system than other mammals. Ruminants include cattle, sheep, goats, deer, bison, elk, and camels. Swine, dogs, and humans are examples of nonruminants.

Runoff, direct — Water that flows over the ground surface or through the ground directly into streams, rivers, and lakes. Runoff is the cause of **rill erosion** and a source of **nonpoint pollution**.

RUP — **Restricted use pesticide**.

Rural — The Bureau of the Census defines the rural population (in contrast to urban) as all persons living in the open country, plus those in places of less than 2,500 inhabitants that are beyond the densely settled (1,000 or more persons per square mile) suburban fringes of metropolitan cities. However, the **Rural Development Act of 1972** defines rural as any area not included in any city or town with a population in excess of 10,000 inhabitants.

Rural Business-Cooperative Service (RBS) — One of three **USDA** agencies charged with implementing rural development policies and programs. The RBS provides loans, guarantees, technical assistance, and grants to rural businesses and cooperatives. See **Rural Housing Service** and **Rural Utilities Services**.

Rural Community Advancement Program (RCAP) — A program established by the rural development Title of the **FAIR Act of 1996** under which **USDA** is authorized to provide **state rural development block grants**, direct and guaranteed loans, and other assistance to meet rural development needs across the country. Program funding will be allocated to three areas: (1) rural community facilities, (2) rural utilities, and (3) rural business and cooperative development. See **Rural Development Trust Fund**.

Rural Development Trust Fund — Authorized under the **FAIR Act of 1996** the trust fund is used to distribute **Rural Community Assistance Program** funds. Funds are allocated among states based on such factors as rural population, income, and unemployment.

Rural Electric Cooperatives — There are 874 electric distribution cooperatives and 60 generation and transmission cooperatives in the United States, which provide electric service to some 30 million people in 46 States. Reflecting their rural location, these cooperatives account for 7.4% of the kilowatt hours sold, but they maintain nearly half of the nation's electric distribution lines. Rural electric cooperatives have access to insured and guaranteed loans from the **Rural Utilities Service**. Insured loans primarily finance the construction of facilities for the distribution of electric power in rural areas. Guaranteed loans primarily finance generation and bulk transmission facilities for power supply borrowers.

Rural Electrification Administration — The predecessor **USDA** agency to the **Rural Utilities Service** charged with administering certain telephone and **rural electric cooperative** loan programs.

Rural home loans — **Section 502 loans** are available through the **Rural Housing Service** to low- and moderate-income rural households to purchase and repair single-family homes.

Rural home repair loans and grants — **Section 504 Loans and grants** are available through the **Rural Housing Service** to lower income rural homeowners for making repairs.

Rural housing preservation grants — **Section 533 grants** are available through the **Rural Housing Service** for repairing and rehabilitating rural housing for low- and very low-income families.

Rural Housing Service (RHS) — The **USDA** agency responsible for administering the housing programs including direct loans, loan guarantees, rental assistance payments, and grants for low income families residing in rural areas. The agency also administers the **community facility** loan and grant programs. **USDA's** Rural Housing Service administers various housing programs intended to aid in the development of rural America. Rural housing programs are divided into three categories: community facilities, single family housing, and multi-family housing. These programs were formerly operated by the Rural Development Administration and the Farmers Home Administration.

Rural multifamily housing loans — **Section 515 loans** are available through the **Rural Housing Service** for providing rental housing for low- and moderate-income families in rural areas, and for congregate housing for the elderly and handicapped.

Rural rental assistance — **Section 521 rental assistance** available through the **Rural Housing Service** reduces out-of-pocket cash that very-low-income and low-income families pay for rent, including utilities.

Rural Utilities Service (RUS) — An agency within **USDA** charged with administering activities that support rural telecommunications, **distance learning and telemedicine**, electrical, and water and waste disposal activities. RUS assistance can be provided in the form of direct and guaranteed loans, and grants.

RUS — Rural Utilities Service.

RUSLE — Revised universal soil loss equation.

S/U — Stocks-to-use ratio.

S-K — Saltonstall-Kennedy Grant Program.

S&D — Special and differential treatment.

S&PF — State & Private Forestry.

SAB — Science Advisory Board of EPA.

SAC — Suspended and canceled pesticides.

SAES — State Agricultural Experiment Stations.

SAF — Society of American Foresters.

Safe Drinking Water Act (SDWA) — P.L. 93-523 (December 16, 1974) as amended, is the key federal law for protecting public water systems from harmful contaminants. First enacted in 1974, the Act, as amended, is administered by the **Environmental Protection Agency** through regulatory programs that establish standards and treatment requirements for drinking water contaminants, control underground injection of wastes that might contaminate water supplies, and protect ground and surface water sources. Regulated public water systems under the Act are those that have at least 15 service connections or regularly serve 25 or more individuals. The 1996 amendments (P.L. 104-182) broadened the definition of “public water system” to include systems that deliver water through pipes or “other constructed conveyances,” which includes agricultural irrigation systems that convey water that is used for residential purposes (unless alternative water is provided for drinking and cooking; or unless water for drinking, cooking, and bathing is treated). The 1996 amendments also require states to identify, to the extent practicable, origins of contaminants in areas providing source waters for public water systems to determine the susceptibility of systems to contamination; such areas could include farmland.

Safe Meat and Poultry Inspection Panel — A permanent advisory panel that could be created under a provision of the **FAIR Act of 1996**. The panel would review and evaluate inspection policies and procedures and any proposed changes to them.

Safeguards, import — A trade policy tool available to temporarily increase border protection for designated commodities and products. Its purpose is to allow a producing sector to adjust to changed market conditions before facing competition again without such protection. For agricultural products subject to **tariffication**, the **Uruguay Round’s** Agreement on Agriculture (Part I, Article 5) establishes a special agricultural safeguard that allows countries to impose an additional **duty** when sudden import surges (volumes) exceed, or import prices fall below, a trigger level. The United States has announced quantity and price trigger levels for those products whose imports were previously restricted using **Section 22** fees and quotas and for which **tariff-rate quotas** are now in place: beef, mutton, 18 dairy products, peanuts, peanut butter and paste, raw cane sugar, refined sugar and syrups, eight types of sugar-containing products, mixed condiments and seasonings, animal feed containing milk, and six cotton categories. The **North American Free Trade Agreement (NAFTA)** includes a special agricultural safeguard to provide added protection against import surges of six seasonal vegetables and fruit from Mexico until tariffs are completely phased out by year-end 2003. Covered by this safeguard are U.S. imports from Mexico of fresh tomatoes, eggplant, chili peppers, squash, onion and shallots, and watermelon during specified time periods. Comparable safeguards exist on Mexican imports from the United States of 17 categories of goods that include live swine, certain pork products, certain potato products, fresh apples, and coffee extract. NAFTA provides that no such special safeguard may be maintained on a good if it is

the subject of an emergency action. Both the **Uruguay Round** and NAFTA special safeguard provisions differ from broader import relief authority laid out in **Section 201** of the **Trade Act of 1974**.

Sales for local currencies — A provision of **P.L. 480** that permits a portion of commercial sales (under Title I) to be repaid in the country's local currency.

Salmonella — A pathogenic, diarrhea-producing bacterium that is the leading cause of human food borne illness among intestinal pathogens. It is commonly found in varying amounts in raw meats, poultry, milk, and eggs, but other foods can carry it. Under 1996 rules published by **USDA** to control pathogens in meat and poultry, all plants that slaughter food animals and that produce raw ground meat products must meet and stay below a standard national incidence rate for *salmonella* contamination. The standards, which take effect in January 1998, vary by product. Plants where USDA testing indicates contamination rates are above the national standard will be required to take remedial actions.

Salvage rider — Section 2001 in the Emergency Supplemental Appropriations Act of 1995 (P.L. 104-19, July 27, 1995) to expand salvage timber sales from July 27, 1995 through December 31, 1996, by exempting them from public challenges under environmental laws; also controversial because it reinstated numerous timber sales in Washington and Oregon that had been stopped to protect **endangered** and **threatened species** habitat.

Salvage sales — Timber sales from **national forests** primarily to remove dead, infested, damaged, or down trees and associated trees for stand improvement; controversial partly because there are no standards for the number or proportion of trees that must be dead, infested, damaged, or down and partly because the **Forest Service** retains at least some of the revenues to prepare and administer future salvage sales.

Sample grade — In commodities, usually the lowest quality of a commodity, too low to be acceptable for delivery in satisfaction of **futures contracts**.

Sanitary and phytosanitary (SPS) measures and agreements — Measures to protect humans, animals, and plants from diseases, pests, or contaminants. The final act of the **Uruguay Round** of the **Multilateral Trade Negotiations** contains "The Agreement on the Application of Sanitary and Phytosanitary Measures." It applies to all sanitary (relating to animals) and phytosanitary (relating to plants) (SPS) measures that may have a direct or indirect impact on international trade. The SPS agreement includes a series of understandings (trade disciplines) on how SPS measures will be established and used by countries when they establish, revise, or apply their domestic laws and regulations. Countries agree to base their SPS standards on science, and as guidance for their actions, the agreement encourages countries to use standards set by international standard setting organizations. The SPS agreement seeks to ensure that SPS measures will not arbitrarily or unjustifiably discriminate against trade of certain other members nor be used to disguise trade restrictions. In this SPS agreement, countries maintain the sovereign right to provide the level of health protection they deem appropriate, but agree that this right will not be misused for protectionist purposes nor result in unnecessary **trade barriers**. A rule of **equivalency** rather than equality applies to the use of SPS measures.

Sanitation standard operating procedures (SSOPs) — Refers to the cleaning procedures that meat and poultry plants use, both before and during production, to prevent contamination of products. Site-specific SSOPs were required to be implemented in January 1997 by all slaughter and processing plants, under the comprehensive pathogen reduction regulations issued by **USDA** in July 1996.

SAB — **Science Advisory Board**.

SARE — Sustainable Agriculture Research and Extension Program.

SBP — **School Breakfast Program**.

SC; STC — State conservationist.

Scale economies — See **economies of size**.

Scaling — A method by which **Forest Service** personnel, or an independent third-party to measures the volume of timber actually removed as a result of a timber sale. Scaled sales are a timber sales that use scaling for billing purchasers at the **stumpage price** for the timber cut.

SCD/SWDC — **Soil Conservation District**; or **Soil and Water Conservation District**.

School Breakfast Program — Permanently authorized by the **Child Nutrition Act of 1966**. Federal funding is provided in the form of cash reimbursements for each breakfast served, varied in amount by the family income of the participating child.

All children in participating schools and residential institutions are eligible for a federally subsidized meal, regardless of family income. However, **free meals** must be offered to children from families with incomes below 130% of the federal poverty income level, and **reduced price** meals to those with family incomes between 130 and 185% of the poverty level. The program is administered by the **Food and Nutrition Service** and funded by annual agricultural appropriations.

School Lunch Program — See **National School Lunch Program**.

School meals initiative for healthy children — Initiative undertaken by the **Food and Nutrition Service (FNS)** to revise and update the nutrition standards of school meals and bring them into compliance with the Dietary Guidelines for Americans, and to assure that school children have access to healthful nutritious meals that taste good. Includes efforts to improve the quality of commodities provided to schools and provide training and technical assistance.

Science Advisory Board — A group of independent scientists selected by the Administrator of the **Environmental Protection Agency** to advise on the scientific and technical aspects of environmental problems and issues and who, at the request of the Administrator, review the scientific aspects of any reports or other written products prepared by the agency. Congress established the Board when it enacted the Environmental Research, Development, and Demonstration Authorization Act of 1978 (P.L. 95-477).

Scientific Advisory Panel — Formally known as the FIFRA Scientific Advisory Panel, this group of independent scientists was authorized by the **Federal Insecticide, Fungicide, and Rodenticide Act**. Its purpose is to provide scientific advice to the **Environmental Protection Agency** on pesticides and pesticide-related issues.

Scrapie — A fatal, degenerative neurological disease of sheep and goats. The similarity of scrapie to **bovine spongiform encephalopathy (BSE)** (mad cow) disease in cattle, with the possibility of subsequent transmission to humans, has caused the **Food and Drug Administration** to propose regulations to prohibit using sheep and goat by-products as a component in cattle feeds. The **Animal and Plant Health Inspection Service** also conducts a “voluntary scrapie flock certification program” to certify scrapie-free herds.

SDWA — **Safe Drinking Water Act**.

SE — **Salmonella enteritidis**.

SEC — Office of the Secretary; Securities and Exchange Commission.

Section 3 lands — **Public lands** within a **grazing district** administered by the **Bureau of Land Management** under Section 3 of the **Taylor Grazing Act of 1934**. BLM authorizes livestock grazing on these lands by issuing permits to permittees. Section 3 lands make up the vast majority of BLM-administered lands.

Section 4 general or basic assistance — This refers to the section of **National School Lunch Act** requiring the federal government to subsidize all lunches served through the school lunch program, regardless of the income of the participant. Sometimes referred to as **paid** or **full-price** lunches because children buying meals pay most of the cost, as opposed to those getting **free lunches** or those paying not more than 40 cents for a **reduced price**.

Section 11 special assistance - This refers to the section of **National School Lunch Act** that provides additional cash reimbursements (or so-called special assistance payments) for **free lunches** and **reduced price lunches** to children from lower income families.

Section 15 lands — These are **public lands** that lie outside a **grazing district** administered by the **Bureau of Land Management** under Section 15 of the **Taylor Grazing Act of 1934**. The BLM authorizes livestock grazing on these lands by issuing leases to private parties.

Section 22 — A provision of permanent agricultural law (**Agricultural Adjustment Act Amendment of 1935**) that allows the President to impose **import fees** or import **quotas** to prevent imports from non-WTO member countries from undermining the **price support** and **supply** control objectives of domestic **farm programs**. Legislation implementing **NAFTA** and the **Uruguay Round** Agreement on Agriculture exempts NAFTA partners and WTO member countries from Section 22 quotas and fees. Under both trade agreements, the United States converted then-in-effect Section 22 restrictions into **tariff-rate quotas**. This effectively eliminates Section 22 as a tool to shield domestic price support operations.

Section 32 — Section 32 of **Agricultural Adjustment Act Amendment of 1935** was enacted to widen market outlets for surplus agricultural commodities as one means of strengthening **farm prices**. Section 32 programs are financed by a permanent appropriation equal to 30% of the import **duties** collected on all items entering the United States under the customs laws, plus any unused balances up to \$300 million. Most funds are annually transferred by appropriators to pay for **child nutrition programs**, although a portion of money is reserved to buy perishable commodities (mainly produce, meat, and poultry products) that are in surplus. Section 32 funds were used to finance the **Cottonseed Oil Assistance Program** and **Sunflower Oil Assistance Program** export subsidy programs, which were effectively terminated by the **FAIR Act of 1996**.

Section 201 — A section of the **Trade Act of 1974** that permits the President to grant temporary import relief, by raising import **duties** or imposing **nontariff barriers** on goods entering the United States that injure or threaten to injure domestic industries producing like goods. This provision is the analog of GATT Article 19, which allows GATT contracting parties to provide relief from injurious competition when temporary protection will enable the domestic industry to make adjustments to meet the competition.

Section 301 — A section of the **Trade Act of 1974** that authorizes the President to take all appropriate action, including retaliation, to obtain the removal of any act, policy, or practice of a foreign government which violates an international trade agreement or is unjustified, unreasonable, or discriminatory, and which burdens or restricts U.S. commerce.

Section 404 — A provision of the **Clean Water Act** establishing a program regulating the discharge of dredge or fill material into the nation's waters. Permits for individual dredge or fill activities are issued by the Army Corps of Engineers, subject to guidelines prepared by the **Environmental Protection Agency**. Primarily because this program can impact economic development by restricting the filling of wetlands, it has been controversial. It applies to agricultural, as well as non-agricultural lands. However, normal farming operations, **silviculture**, and ranching activities—such as plowing, cultivating, and minor drainage, and the construction and maintenance of farm and stock ponds, irrigation and drainage ditches, and farm and forest roads—are exempted by law from the permit requirements of this program. In addition, Section 404 authorizes “general permits” for certain activities, including several agricultural ones, so that individual landowners need not apply for a permit. For example, there are general permits for cranberry bogs and for rice culture.

Section 416 — A section of the **Agricultural Act of 1949** that provides for the disposition of agricultural commodities held by the **Commodity Credit Corporation** to prevent waste. Disposal is usually carried out by donation of commodities to charitable groups and foreign governments.

Section 502 loans — A rural housing loan program, administered by the **Rural Housing Service (RHS)**, authorized under Section 502 of the **Housing Act of 1949**. Borrowers may obtain loans for purchasing or repairing new or existing single-family housing. Loans are made directly by RHS or by private lenders with a **USDA** guarantee. Borrowers with income of 80% or less of the area median may be eligible for 33-year direct loans and may receive interest credit to bring the interest rate to as low as 1%. In a given fiscal year, at least 40% of the units financed under this section must be made available only to very low-income families or individuals (below 60% of the area median) with terms up to 38 years. Borrowers must have the means to repay the loans, but be unable to secure reasonable credit terms elsewhere. Borrowers with income of up to 115% of the area median may be eligible for 30-year guaranteed loans from private lenders. Priority is given to first-time homebuyers, and the RHS may require that borrowers complete a homeownership counseling program.

Section 504 loans and grants — A **USDA** rural housing repair program authorized under Section 504 of the **Housing Act of 1949**. Under current regulations, rural homeowners with incomes of 50% or less of the area median may qualify for the **Rural Housing Service** direct loans to repair their homes. Loans are limited to \$15,000 and have a 20-year term at a 1% interest rate. Owners of age 62 or more may qualify for grants of up to \$5,000 to pay for needed repairs. To qualify for the grants, the elderly must lack the ability to repay the full cost of the repairs. Depending on the cost of the repairs and the income of the homeowner, the owner may be eligible for a grant for the full cost of the repairs or for some combination of a loan and a grant to covers repair costs. The combination loan and grant may total no more than \$15,000.

Section 514 loans — A **domestic farm labor** housing program authorized under Section 514 of the **Housing Act of 1949**. The **Rural Housing Service (RHS)** makes loans to farm owners, associations of farm owners, or nonprofit organizations to provide “modest” living quarters, basic household furnishings, and related facilities. The loans are repayable in 33 years and bear an interest rate of 1%. Applicants, who own farms or who represent farm owners, must show that the farming operations have a demonstrated need for farm labor housing and the applicants must agree to own and operate the property on a nonprofit basis. Except for state and local public agencies or political subdivisions, the applicants must be unable to provide the housing from their own resources and unable to obtain the credit from other sources on terms and conditions that they could reasonably be expected to fulfill and still provide farmworker housing at rental rates that would be affordable to the workers. The RHS may make exceptions to the “credit elsewhere” test when (1) there is a need in the area for housing for migrant farm workers and the applicant will provide such housing, and (2) there is no state or local body or no nonprofit organization that, within a reasonable period of time, is willing and able to provide the housing.

Section 515 loans — A **USDA** rural housing program authorized under Section 515 of the **Housing Act of 1949**. The **Rural Housing Service** is authorized to make loans to provide rental housing for low- and moderate-income families in rural areas. Section 515 loans also may be used for congregate housing for the elderly and handicapped. Loans under Section 515 are made to individuals, corporations, associations, trusts, partnerships, or public agencies. The loans are made at 1% interest for a term of 50 years. Except for public agencies, all borrowers must demonstrate that financial assistance from other sources will not enable the borrower to provide the housing at terms that are affordable to the target population.

Section 516 grants — A **USDA** farm labor housing program authorized under Section 516 of the **Housing Act of 1949**. Qualified nonprofit organizations, Indian tribes, or public bodies obtain grants for the development cost of farm labor housing. Grants may be used simultaneously with **Section 514 loans** if the housing, for which there is a “pressing need,” will not be built without assistance from the **Rural Housing Service**. Grants may be made for up to 90% of the development cost of the housing. In a given fiscal year, up to 10% of the Section 516 funds shall be for domestic and migrant farm worker housing. Applicants must contribute at least 10% of the total development costs from their own resources or from other sources including Section 514 loans. Funds may be used to buy, build, or improve housing and related facilities for farm workers, and to purchase and improve the land upon which the housing will be located, including installation of streets, water supply and

waste disposal systems, parking areas, and driveways as well as for the purchase and installation of appliances such as ranges, refrigerators, and clothes washers and dryers. Related facilities may include the maintenance workshop, recreation center, small infirmary, laundry room, day care center, and office and living quarters for the resident manager.

Section 521 rental assistance — Rental assistance authorized under Section 521 of the **Housing Act of 1949**. Owners of housing financed under **Section 515** or **Section 514** may receive rental assistance payments from the **Rural Housing Service** (RHS). The assistance payments enable eligible tenants to make monthly rent payments that do not exceed the greater of (1) 30 percent of monthly adjusted family income, (2) 10 percent of monthly income, or (3) for welfare recipients, the portion of the family's welfare payment that is designated for housing costs. The rental assistance payments, which are made directly to the borrowers, make up the difference between the tenants' payments and the RHS-approved rent for the units. Borrowers must agree to operate the property on a limited profit or nonprofit basis. The term of the rental assistance agreement is 20 years for new construction projects and 5 years for existing projects. Agreements may be renewed for up to 5 years. An eligible borrower who does not participate in the program may be petitioned to participate by 20 percent or more of the tenants eligible for rental assistance.

Section 523 loans — A **mutual self-help** rural housing program authorized under Section 523 of the **Housing Act of 1949** and administered by the **Rural Housing Service**. Nonprofit organizations may obtain 2-year loans to purchase and develop land that is to be subdivided into building sites for housing. The interest rate is 3% for these loans. Applicants must demonstrate a need for the proposed building sites in the locality. Sponsors may also obtain technical assistance (TA) grants to pay for all or part of the cost of developing, administering, and coordinating programs of technical and supervisory assistance to the families who are building their own homes. Each family is expected to contribute at least 700 hours of labor in building homes for each other. Applicants must demonstrate that (1) there is a need for self-help housing in the area, (2) the applicant has or can hire qualified people to carry out its responsibilities under the program, and (3) funds for the proposed TA project are not available from other sources. The program is generally limited to very low- and low-income families. Moderate income families may be eligible to participate provided they are unable to pay for a home built by the contract method. TA funds may not be used to hire construction workers or to buy real estate or building materials. Private or public nonprofit corporations, however, may be eligible for 2-year site loans under Section 523. The loans may be used to purchase and develop land in rural areas. The land is subdivided into building sites and sold on a nonprofit basis to low and moderate income families. Generally, a land loan must result in at least 10 home sites. The sites need not be contiguous. Sites financed through Section 523 may only be sold to families who are building homes by the mutual self-help method. The homes are financed through the Section 502 program.

Section 524 loans — Land acquisition and development loans authorized under Section 524 of the **Housing Act of 1949**. Nonprofit organizations and Indian tribes may obtain loans from the **Rural Housing Service** to purchase and develop land that is to be subdivided into building sites for housing low- and moderate-income families. The loans are made for a 2-year period. Sites financed through Section 524 have no restrictions on the methods by which the homes are financed or constructed. The interest rate on Section 524 site loans is the Treasury cost of funds.

Section 533 grants — A **USDA** rural housing rehabilitation program authorized under Section 533 of the **Housing Act of 1949**. The **Rural Housing Service** is authorized to make grants to capable organizations for (1) rehabilitating single family housing in rural areas which is owned by low- and very low-income families, (2) rehabilitating rural rental properties, and (3) rehabilitating rural cooperative housing structured to provide affordable housing to low- and very low-income occupants. The homes must be located in rural areas and be in need of housing preservation assistance. Assisted families must meet the income restrictions (income of 80% or less of the median income for the area) and must have occupied the property for at least one year prior to receiving assistance. Occupants of leased homes may be eligible for assistance if (1) the unexpired portion of the lease extends for 5 years or more, and (2) the lease permits the occupant to make modifications to the structure and precludes the owner from increasing the rent because of the modifications.

Sediments — Particulate material, including soil, sand, and minerals, transported and deposited by water or wind (see **erosion**). Waterborne sediments cloud the water diminishing sunlight available to aquatic plants; sediments deposited in reservoirs, rivers, and harbors destroy fish and wildlife habitat and may fill shipping channels. Farming, mining, and building and construction activities that expose soil to wind and rain are major sources of sediments.

Seed bank — A facility used for the preservation and dissemination of seed, particularly varieties that are not in commercial use and that may be threatened with extinction. The **USDA** administers the U.S. National Plant Germplasm System.

Self-Help land development loans — **Section 523 loans** are for acquiring and developing land that will be used for **mutual self-help** housing.

Septic system — An on-site system designed to treat and dispose of domestic sewage from a residence or business not connected to a sewer line. A typical septic system consists of a tank that receives waste and holds it while bacteria decompose solids, and a system of tile lines or a pit for disposal of the liquid effluent. The sludge that remains in the tank after decomposition of the solids must be pumped out periodically. By using the assimilative capacity of the land, a properly operating septic system has minimal impact, but an improperly functioning system can be a source of nitrogen **pollution** and of groundwater contamination.

Set-aside program — A program (not used since the late 1970s) under which farmers are required to set aside a certain percentage of their total planted acreage and devote this land to approved **conservation uses** (such as grasses, legumes, and small grain which is not allowed to mature) in order to be eligible for **nonrecourse loans** and **deficiency payments**. Set-aside acreage was based on the number of acres a farmer actually plants in the program year as opposed to being based on prior crop years. The authority for set-aside was eliminated by the **FAIR Act of 1996**.

SFIREG — State FIFRA Issues Research and Evaluation Group.

SFSP — **Summer Food Service Program**.

Sharecropper — A tenant farmer who receives a share of the crops, livestock, or livestock products from the landowner, who in turn may extend credit to and supervises the tenant. The tenant generally supplies only labor.

Sheep Promotion, Research, and Information Act of 1994 — P.L. 103-407 (October 22, 1994) enabled sheep producers and feeders and importers of sheep and sheep products to develop, finance, and carry out a nationally coordinated program for sheep and sheep product promotion, research, and information. This law was enacted a year after legislation was enacted to phase out the **wool and mohair commodity programs**. The **USDA** was authorized to issue a sheep and wool promotion, research, education, and information order subject to approval referenda among producers, feeders, and importers. In a 1996 referendum, the proposed check-off program was defeated. About 53% of nearly 12,000 ballots opposed the order. This group represented 67% of the production that voted.

Sheet erosion — The removal of a thin, relatively uniform layer of soil from the land surface caused by runoff.

Shelterbelt — A plant barrier of trees, shrubs, or other approved perennial vegetation designed to reduce wind **erosion**. Also called a **windbreak**.

Sherman Anti-Trust Act — The 1890 law is considered the foundation of federal anti-monopoly policy. Passed partly as an outgrowth of congressional investigations into alleged price collusion among large meat packers, the law generally prohibited restraint of trade and monopolistic practices in all industries, including agribusiness. The **Capper-Volstead Act** later exempted agricultural cooperatives from certain provisions of the Sherman Act and the subsequent **Clayton Act**.

Shippers export declaration (SED) — A form required by the government for the compilation of official export statistics and for export control purposes. It is necessary on practically every commercial shipment leaving the United States with the exception of mail shipments of small value. The export declaration form is 7525, and form 7513 is used for in-transit merchandise.

Shipping holiday — A fruit and vegetable **marketing order** provision that prohibits the commercial shipping of the regulated commodity during periods following certain holidays when demand is historically low—such as the several days after Thanksgiving and Christmas.

Short — (1) The selling side of an open **futures contract**; (2) a trader whose net position in the futures market shows an excess of open sales over open purchases. See **long**.

Short selling — Selling a **futures contract** with the idea of delivering on it or **offsetting** it at a later date.

Short Term Export Credit Guarantee Program (GSM-102) — One of CCC's **export credit guarantee programs**. See **GSM-102**.

Short ton — Two thousand pounds. By contrast, a long ton equals 2,240 pounds. A metric ton equals 2,204.62 pounds.

SIC — Standard industrial classification (see **North American Industry Classification System**).

Sign-up period — A **USDA**-prescribed time period, usually lasting several months, when farmers can enroll in a crop **price support** or other **farm program**.

Silt — Sedimentary materials composed of fine or intermediate-sized mineral particles.

Silviculture — A branch of forestry dealing with the development and care of forests.

SIP — **Stewardship Incentives Program**.

Site loans — **Section 523 loans** and **Section 524 loans** are for acquiring and developing land for low- and moderate-income rural residents.

Slotting fees — Paid by manufacturers to purchase shelf space in retail stores; such fees are a controversial issue in the food sector. Critics regard slotting fees as unearned store discounts (or even “kickbacks” to stores) that give a competitive edge to larger manufacturers who can afford them, while depriving consumers of variety, new product innovations, and possibly more competitive retail pricing. Supporters of the fees contend that they enable stores to make room for the thousands of new product introductions annually; otherwise, grocers would have to shoulder the risk of stocking items that might not sell.

Small farm — Although there is no official, widely accepted definition of a small farm, the **Small Farms Commission** described it, for purposes of its 1997 study, as one with less than \$250,000 in gross receipts annually on which day-to-day labor and management are provided by the farmer and/or the farm family that owns the production, or owns or leases the productive assets. In 1995, such farms accounted for 93% of the more than 2 million U.S. farms, but only 40% of U.S. farm production. The long-term decline in the number of small farms, and the subsequent **concentration** of production on fewer and larger operations, is a longstanding concern among some segments of the agricultural community, while others view these changes as inevitable, and even necessary to maintain the efficiency and competitiveness of the sector.

Small Farms, National Commission on — A 30-member panel appointed by the Secretary of Agriculture in 1997 to examine the status and needs of small farms in the United States. The Commission presented its findings, which included nearly 150 specific recommendations for action, to the Secretary in a January 1998 report entitled “A Time to Act.”

Small Hog Operation Payment (SHOP) — A \$50 million program, announced January 12, 1999, that makes direct farm payments of up to \$5 per hog on the first 500 hogs marketed during the last 6 months of 1998. Operations marketing 1,000 or more hogs during the 6 month period, and those with 1998 gross income greater than \$2.5 million were not eligible. The actual payment rate was determined after signup by dividing \$50 million by the total eligible. The program was implemented under **Section 32** authority to make direct payments to farmers to reestablish their purchasing power. This was the first time in the previous 38 year history of the law that Section 32 funds were used for direct payments.

Smith-Lever Act of 1914 — P.L. 63-95 (May 8, 1914) authorized and provided initial funding for states to establish an educational outreach arm to “extend” the results of research programs at the **land grant colleges of agriculture** and their affiliated **state agricultural experiment stations** to all citizens who might benefit from them. In 1962 Congress amended the act to establish a formula for distributing federal funds to states for agricultural extension programs. The formula provides for each state to receive what it received in 1962 as a base. Funds appropriated in excess of the 1962 level are allocated as follows: 4% of funds go to the federal component of the **Cooperative Extension System** (now part of the **Cooperative State Research, Education, and Extension Service**); of the remainder, 20% is allocated to each state equally; and 80% is allocated on the basis of a state’s share of the U.S. rural and farm populations. On average, Smith-Lever formula funds account for about 30% of a state’s total funding for extension programs.

Smoot-Hawley — See **Tariff Act of 1930**.

SMP — **Special Milk Program**.

SNE — Society for Nutrition Education.

SOAP — **Sunflowerseed Oil Assistance Program**.

SOCMA — Synthetic Organic Chemicals Manufacturing Association.
[<http://www.socma.com/>]

Sodbuster — A program created by Title 12 of the **Food Security Act of 1985** designed to discourage the plowing up of erosion-prone grasslands for use as cropland. If such highly erodible land is used for crop production without proper conservation measures as laid out in a **conservation plan**, a producer may lose eligibility to participate in **farm programs**. Sodbuster provisions remain in effect under the **FAIR Act of 1996**.

Soil — In the United States, about 70,000 kinds of soil are recognized in the nationwide system of classification. Each has a unique set of characteristics and a potential for use. These characteristics are important in designing a **conservation plan** to protect the soil from **erosion** if it is being cultivated. The **Natural Resources Conservation Service** is responsible for mapping the United States by soil type, through the **Soil Survey Program**.

Soil and Water Conservation District (SWDC) — See **Conservation District**.

Soil Bank Act — Title I of the **Agricultural Act of 1956** (P.L. 84-540), designated the Soil Bank Act, created the Acreage Reserve Program to retire land producing basic commodities under an annual agreement from 1956 through 1959, and the Conservation Reserve Program, to retire agricultural land under contracts of 3, 5, or 10 years. The **Soil Bank Act** was repealed by Section 601 of the Food and Agriculture Act of 1965 (P.L. 89-321). Nevertheless, this early Conservation Reserve served as the model for the current **Conservation Reserve Program (CRP)**, which was enacted in the **Food Security Act of 1985**.

Soil Bank Program — A federal program of the late 1950s and early 1960s that paid farmers to retire land from production for 10 years; the predecessor to today's **Conservation Reserve Program**. Some elements in the CRP, such as a limit on CRP acres per county, were a response to the Soil Bank experience.

Soil conditioner — An organic material like humus or compost that helps soil absorb water, build a bacterial community, and take up mineral nutrients.

Soil conservation district — A legal subdivision of state government, with a locally elected governing body, responsible for developing and carrying out a program of soil and water conservation within a geographic boundary, usually coinciding with county lines. The nearly 3,000 districts in the United States have varying names — soil conservation districts, soil and water conservation districts, natural resources districts, resource districts, resource conservation districts.

Soil Conservation and Domestic Allotment Act of 1936 — P.L. 74-46 (February 26, 1936) was designed to support farm income by making soil-conservation and soil-building payments to participating farmers. This design overcame the unconstitutional taxes on processors in the support program authorized by the **Agricultural Adjustment Act of 1933**. The 1936 Act supported farm income and reduced surpluses by paying farmers for shifting from crops in excess supply (soil depleting crops) to soil building crops like legumes and grasses. This law, as amended, continues to serve as the enabling authority for a number of activities and programs carried out by the **Natural Resources Conservation Service**.

Soil Conservation Service (SCS) — Replaced by a new **USDA** agency, the **Natural Resources Conservation Service** after USDA reorganization in 1994. Responsibilities include carrying out technical assistance programs in cooperation with **soil conservation districts** to improve and conserve soil and water resources, and operating related programs such as the national **soil survey** and the **natural resources inventory**.

Soil loss tolerance (T value) — For a specific soil, the maximum average annual soil loss expressed as tons per acre per year that will permit current production levels to be maintained economically and indefinitely. T values range from 2 to 5 tons per acre per year. According to the 1992 **natural resources inventory**, about 63 million acres of **highly erodible cropland** are still eroding at more than their T value, including 21 million acres that are still eroding at three times T.

Soil moisture zone — Depth of soil from which plant roots extract water.

Soil quality (health) — Soil quality includes consideration of measures related to both productivity for crops and environmental factors.

Soil series — A group of soils having horizons (or layers) similar in characteristics and arrangement in the soil profile, except for the texture of the surface portion. They are given proper names from place names within the areas where they occur. Thus, Norfolk, Miami, and Houston are names of some well-known soil series.

Soil solarization — Fumigating and warming soil by covering it with black plastic. This is an alternative pest control technique being investigated as an alternative to the use of **methyl bromide** (a chemical fumigant used in Florida tomato production and for other speciality crops, which will be phased out of use because of its **ozone** depleting effects).

Soil sterilant — A chemical that temporarily or permanently prevents the growth of all plants and animals, depending on the chemical. Soil sterilants must be registered as **pesticides**.

Soil survey — A program of the **Natural Resources Conservation Service** to inventory soil resources as a basis for determining land capabilities and conservation treatments that are needed, provide soil information to the public (primarily through maps), and provide technical support to those who use soils information. About 90% of the private lands have been mapped. In FY1996, maps were prepared or updated on more than 17 million acres.

Sole source bid — This refers to the required bidding process for infant formula sold through the WIC program. It offers an infant formula manufacturer the option of bidding to be the only provider of infant formula contained in WIC food packages in the state. Contracts must be awarded to the company that offers the lowest price (or largest discount) on its infant formula.

Solid waste — Non-liquid, non-soluble materials ranging from municipal garbage to industrial wastes that contain complex and sometimes hazardous substances. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes, and mining residues. Technically, solid waste also refers to liquids and gases in containers. The disposal of solid waste is regulated by the **Environmental Protection Agency** under the **Resource Conservation and Recovery Act**.

Solid Waste Disposal Act — See **Resource Conservation and Recovery Act**.

SOPs — Standard operating procedures.

Sound science — A phrase generally used in a political context to rhetorically challenge the validity of the other side's arguments. The phrase has arisen in agricultural trade disputes when a country imposes a **sanitary or phytosanitary (SPS) measure** that an exporting group claims is an unfair trade barrier because it is "not based on sound science." Often, policymakers or adjudicators are asked to make decisions based, at least in part, on which side's scientific arguments appear to be the most convincing. However, the phrase sound science is not included in public laws or international treaties. Under the **Uruguay Round's SPS agreement**, countries' SPS measures must be based on scientific principles, and may not be maintained without scientific evidence. However, the agreement does not define "scientific." Under general principles of international law, the interpretation of the term is left to good faith and ordinary "dictionary" definitions. By requiring only that measures be based on scientific principles, as broadly understood and accepted by the scientific community, the agreement, therefore, does not expect those who are adjudicating trade disputes to choose which science is the "sound science."

Soup Kitchen-Food Bank Program — Originally authorized under the **Hunger Prevention Act of 1988** to buy commodities for soup kitchens and food banks not participating in the **Emergency Food Assistance Program (EFAP)**. Program authority was extended through FY2002 by an amendment to the **Hunger Prevention Act of 1988**, enacted under the **FAIR Act of 1996**. This program was consolidated with **EFAP** by an amendment to the **Emergency Food Assistance Act of 1983** that was enacted as part of the 1996 welfare reform law (the **Personal Responsibility and Work Opportunity Reconciliation Act of 1996**, P.L. 104-193).

Southern Dairy Compact — An agreement among Southern U.S. states that would allow member states to jointly establish a minimum farm price for fluid milk that is above the federally mandated minimum price level in the region. The Southern compact (as of January 1999) is not yet operational. Several Southern state legislatures have approved state membership in the compact. Congressional authority to form a compact is required and is pending as of early 1999.

Special and differential treatment (S&D) — A set of GATT provisions (in Article 18) that exempts developing countries from the same strict trade rules and disciplines of more industrialized countries. In the **Uruguay Round Agreement on Agriculture**, for example, developing countries are given longer time periods to phase in **export subsidy** and **tariff** reductions than the more industrialized countries.

Special Milk Program — Offers federal reimbursements for each half-pint of milk served to a child in a participating outlet, which generally is any school or facility caring for children that does not participate in other federally subsidized meal programs. There is an exception from this limitation for kindergarten children in split session programs. The program is permanently authorized under the **Child Nutrition Act of 1966**. Schools may offer free milk to children meeting **free lunch** income requirements, if they choose, and this milk is reimbursed at full cost. Otherwise, children buy so-called paid milk, which is subsidized at a legislatively set rate for each half-pint served. This program is administered by the **Food and Nutrition Service (FNS)**, and funded by annual agricultural appropriations.

Special review — Formerly known as Rebuttable Presumption Against Registration (RPAR), this is a regulatory process through which existing **pesticides** suspected of posing unreasonable risks to human health, non-target organisms, or the environment are referred for review by the **Environmental Protection Agency**. Such review requires an intensive risk/benefit analysis with opportunity for public comment. If risk is found to outweigh social and economic benefits, regulatory actions ranging from label revisions and use-restriction to **cancellation** or suspended **registration** can be initiated.

Special Supplemental Nutrition Program for Women, Infants and Children (WIC) — WIC provides federal grant funds to state health agencies and recognized Indian tribal organizations to operate programs for low-income pregnant and postpartum mothers, infants, and children (under age 5) who are at risk due to inadequate income and diet. The program offers monthly food packages consisting of specifically authorized supplemental foods containing nutrients often found lacking in the diets of WIC participants, and is operated at the local level by public health and other agencies with a link to health care providers. WIC foods include infant formula and cereals, milk, cheese, eggs, breakfast cereals, fruit and vegetable juices, dry beans and peas, and peanut butter. Participants must meet both a low-income and nutritional risk test to be eligible. Foods are provided either directly by a local WIC clinic, or more commonly, in the form of **WIC vouchers** issued to participants that list specific types and amounts of foods that may be redeemed by the participant at authorized grocery stores. The program is authorized through FY2003 under Section 17 of the **Child Nutrition Act of 1966** and funded as a discretionary program by annual agriculture appropriations acts.

Specialty crops — Usually refers to crops covered by **marketing orders** that generally are not fruits or vegetables. Specialty crops have included almonds, filberts, walnuts, spearmint oil, hops, dates, raisins, and prunes.

Species — Species represent the lowest and most important of the primary groupings used in classifying plants, animals, and microorganisms. While no single definition applies to all organisms, biologists rely principally on (1) morphological and genetic similarities and (2), for sexually reproducing organisms, the capability of interbreeding with one another but not other groups. If different species do interbreed, the offspring, if any, are often sterile. Biologists give species unique, binomial names: a generic name that includes closely related species, and a species-specific name. The horse, for example, is *Equus caballus*; the donkey or ass is *Equus asinus*. (Their offspring, the mule, is sterile.) As populations of organisms vary geographically and change over time (becoming extinct, or splitting or evolving into new species), species classifications are neither absolute nor immutable; where some biologists see variations within a species (and may designate subspecies), others may see separate species. About 1.5 to 2 million species have been named, but scientists estimate the total number of species could be 5 to 100 million, many of them probably undiscovered microorganisms. The **Endangered Species Act (ESA)** protects species designated as **endangered** or threatened with extinction; these protections prohibit **taking endangered species** and can include restrictions on habitat alterations, such as logging or water pollution. Because of the way “species” is defined in the ESA, policy debates have arisen over whether certain groups of organisms qualify for listing (e.g., northern goshawks and the Alexander Archipelago wolf).

Speculator — In commodity trading, an individual who does not **hedge**, but who trades in **futures contracts** with the objective of achieving profits through the successful anticipation of price movements.

Spot commodity — The actual commodity as distinguished from a **futures contract**. Sometimes used to refer to **cash commodities** available for immediate delivery.

Spot market — A public or open marketplace (such as open exchanges or auction houses) where products (including agricultural products such as livestock, grain, cotton, etc.) are bought and sold. The Minneapolis Grain Exchange and the now defunct **National Cheese Exchange** are examples. Spot also refers to a maturing delivery month of a **futures contract**.

Spot price — The price at which a physical commodity for immediate delivery is selling at a given time and place. See **cash price**.

Spread (or straddle) — The purchase of a **futures contract** of one **delivery month** against the sale of another futures delivery month of the same commodity; the purchase of one delivery month of one commodity against the sale of that same delivery month of a different commodity; or the purchase of one commodity in one market against the sale of the commodity in another market, to take advantage of a profit from a change in price relationships. The term spread is also used to refer to the difference between the price of a futures month and the price of another month of the same commodity. A spread can also apply to **options contracts**.

SPS — Sanitary and phytosanitary.

SRM — Society for Range Management.

SSOPs — Sanitation standard operating procedures.

SSSA — Soil Science Society of America.

Standards of identity for food — Mandatory, federally-set requirements that determine what a food product must contain in order to be marketed under a certain name in interstate commerce. Mandatory standards (which differ from voluntary **grades and standards** applied to agricultural commodities) protect the consumer by ensuring that a label accurately reflects what’s inside — for example, that “mayonnaise” is not an imitation spread, or that “ice cream” is not a similar, but different, frozen dessert.

Staple — A commodity that is widely and regularly produced and consumed (i.e., wheat, rice, potatoes). A term used to designate the length of fiber in cotton and wool.

State Agricultural Experiment Stations (SAES) — The **Hatch Act of 1887** established an agricultural experiment station to be affiliated with the **land grant college of agriculture** in each state. Research done at these stations underpins the curriculum of the colleges, as well as the programs of the **Cooperative Extension System**.

State and Private Forestry — A branch of the **Forest Service** providing technical and financial assistance to states and to private landowners for forest management and for **forest health**.

State inspection programs — Often refers to the state-run meat and poultry inspection programs to which **USDA** contributes 50% of the cost. State programs (about half the states use them) must be certified by USDA to be at least equal to federal inspection requirements. However, products from state-inspected plants (most of them are relatively smaller operations) cannot be sold outside of the state. Small plants and many state officials have endorsed bills in Congress that would permit state-inspected products to be sold into interstate and foreign commerce, but large meat and poultry companies (most of them already under federal inspection) generally oppose such a change.

State rural development block grant — Under provisions of the **Rural Community Advancement Program (RCAP)**, each state may receive, for direct administration, up to 10% of the funds allocated to the state. These funds may be used to establish a state administered block grant. The first 5% of the state block grant allocated does not require the community to make a matching fund contribution. A state may receive the additional 5% if it provides \$2 in matching funds for every \$1 in RCAP funds it would receive.

State rural development councils — A collaborative partnership comprised of representatives of the federal, state, local, and tribal governments, the private sector, and the nonprofit sector. Councils are created by a memorandum of understanding between **USDA** and the state Governor. The councils’ purpose is to promote rural development within the state.

State technical committee — Advisory groups to state conservationists (coordinators of all **Natural Resources Conservation Service** activities within a state) created in the **FACT Act of 1990** and amended in the **FAIR Act of 1996**.

These groups can include representatives from agencies, agriculture, agribusiness, and non-profits, as well as individuals with a demonstrated expertise. Responsibilities assigned by the **FAIR Act** include establishing procedures for evaluating petitions on new **conservation practices** and identifying priority areas for the **Environmental Quality Incentive Program** and **Wetland Reserve Program**.

State trading enterprises (STEs) — STEs are enterprises authorized to engage in trade (exporting and/or importing) that are owned, sanctioned, or otherwise supported by government. STEs are legitimate trading entities and are subject to GATT rules. Examples include the **Canadian Wheat Board**, the **Australian Wheat Board**, and the **New Zealand Dairy Board**. Some U.S. agricultural producers think, however, that STEs through their exercise of monopoly power and government support may distort trade in their respective commodities.

STC — State technical committee; state conservationist.

STB — Surface Transportation Board, the federal body regulating railroads created by Congress when it eliminated the Interstate Commerce Commission. Agricultural interests closely follow STB deliberations proceedings on railroad mergers, service issues, and related matters because of their potential impact on grain and other commodity transportation costs.

STE — **State trading enterprise**.

Steagall Amendment of 1941 — P.L. 77-144 (July 1, 1941) required **price support** for many nonbasic commodities at 85% of **parity** or higher. In 1942, the minimum rate was increased to 90% of parity and was required to be continued for 2 years after the end of World War II. The “Steagall commodities” included hogs, eggs, chickens (with certain exceptions), turkeys, milk, butterfat, certain dry peas, certain dry edible beans, soybeans, flaxseed and peanuts for oil, American-Egyptian (ELS) cotton, potatoes, and sweet potatoes.

Step 2 payments — One of the three **cotton competitiveness provisions** intended to keep U.S. cotton competitive in domestic and export markets. Under the Step 2 provision, **USDA** is required to issue marketing certificates (or cash payments in lieu of certificates) to domestic users of upland cotton for documented purchases, and to exporters of upland cotton for documented sales, when certain U.S. cotton pricing benchmarks are exceeded. The payments provide a subsidy to U.S. cotton users and exporters so that U.S. rather than foreign cotton will be utilized, even when the former is higher-priced. Market developments triggered the availability of payments from late August 1991 through early December 1994, and again from mid July 1997 until mid December 1998, when funds ran out. The **Federal Agriculture Improvement and Reform (FAIR) Act of 1996** capped Step 2 payments during the FY1996-2002 period at \$701 million.

Stewardship Incentives Program (SIP) — A program administered by the **Forest Service** through the **Farm Service Agency** that provides up to 75% cost sharing for practices implementing approved **renewable resource** plans. Payments are limited to \$10,000 annually per landowner, and practices must be maintained for 10 years. Through FY1993, practices had been implemented on more than 670,000 acres by more than 7,000 landowners.

Stewart B. McKinney Homeless Assistance Act — P.L. 100-77 (July 22, 1987). Enacted in response to concerns about increasing hunger, homelessness, and unemployment, this Act provided federal funding to support housing, food assistance, and job training.

Stocker cattle — Calves or older animals maintained, often on pasture or rangeland, to increase weight and maturity before being placed in a feedlot.

Stocking rate — The number of specific kinds and classes of livestock grazing or using a unit of land for a specified time. Not the same as **carrying capacity**.

Stocks, grain — Commercial grain stocks include domestic grain in storage in public and private elevators at important markets and grain afloat in vessels or barges in lake and seaboard ports. Commercial stocks plus government-owned stocks constitute total stocks. Information on grain stock levels is half of the supply demand equation that determines price levels.

S.T.O.P. — Safe Tables Our Priority.

Strategic grain reserve — National grain stocks held in reserve intentionally by government programs for the purpose of meeting future domestic and international needs. See **Food Security Commodity Reserve, Food Security Wheat Reserve, Farmer-Owned Grain Reserve**.

Strike price (exercise or contract price) — The price, specified in the **option contract**, at which the underlying **futures contract** or commodity will move from seller to buyer.

Stripcropping — Growing crops in a systematic arrangement of strips or bands, usually parallel to the land's contour, that serve as barriers to wind and water **erosion**.

Strip tillage — Planting and tillage operations that are limited to a strip not to exceed one-third of the distance between rows; the area between is left untilled with a protective cover of crop residue on the surface for **erosion** control.

Structure of agriculture — The characteristics of the farm sector; most often used in describing changes in the number, size distribution, production traits, and business composition (i.e., type of ownership) of farms and agribusiness firms. Structural change is an agricultural policy issue because of concerns over its economic and social impacts on farmers, rural communities, consumers, and others.

Stubble-mulching — Leaving the stubble or crop residue essentially in place on the land as a surface cover during a fallow period. Stubble-mulching can prevent **erosion** from wind or water and conserve soil moisture.

Stumpage price (or stumpage rate) — The agreed-upon price, usually in dollars per thousand **board feet** (mbf), between a private timber purchaser and the federal agency for the right to cut and remove trees and/or logs from the federal lands.

Subscription farming — Usually refers to a **direct marketing** arrangement between a local farmer and one or more nearby consumers, where the consumer pays, or agrees to pay, the farmer in advance for delivery of a variety of fresh farm products, as they are produced throughout the season. It provides a source of guaranteed, up-front income that the producer can use to finance planting and other operations.

Subsidy — A direct or indirect benefit granted by a government for the production or distribution (including export) of a good or to supplement other services. Generally, subsidies are thought to be production and trade distorting, resulting in an inefficient use of resources. Arguably, subsidies may be justified on grounds that they adjust for nonmarket considerations that are as important as market values. This term also is used to refer to federal reimbursements for meals served through child and elderly nutrition programs.

Subsistence farm — A low-income farm where the operator is producing primarily for the family's needs rather than for sale.

Sugar price support program — The federal program that maintains a minimum price for sugar. The new program covers the 1996-2002 crops of sugar beets and sugarcane. Under the **FAIR Act of 1996**, sugar processors benefit from a price guarantee only when **nonrecourse loan** policy is in effect (i.e., **USDA** projects that fiscal year imports of sugar will be equal to or greater than 1.5 million **short tons**). Should projected imports be below 1.5 million short tons, only **recourse loans** will be available to processors (i.e., no price guarantee exists). **Loan rates** are frozen through FY2003 at 18 cents/lb. for raw cane sugar, and 22.9 cents/lb. for refined beet sugar. Processors benefit, though, from a slightly higher level of **price support**

accomplished by USDA administering an import quota in such a way that market prices are kept above **loan forfeiture levels**.

Should a processor forfeit on a nonrecourse loan if market prices fall below his forfeiture level, a **forfeiture penalty** is imposed (i.e., 1 cent/lb. for raw cane sugar, 1.072 cents/lb. for beet sugar). Should this occur, the price guarantee level would be lower than a processor received in the past. The **FAIR Act of 1996** repealed both the program's **no cost** requirement (in effect since FY1986) and standby authority (in effect during FY1992-1996) to impose **marketing allotments** under certain conditions.

Sugar re-export programs — Administered by **USDA**, program regulations allow cane refiners and food manufacturers, subject to certain conditions, to import sugar exempt from **tariff-rate quota** provisions that apply to sugar imported for consumption in the U.S. market. Cane refiners process the imported sugar into refined sugar for re-export, or for transfer to food manufacturers for use in sugar-containing products for export. These programs were designed in the early 1980s to utilize excess cane refining capacity and to make U.S. refined sugar and sugar-containing products more competitive on the world market by allowing participating companies to have access to lower world-priced sugar.

Suitable timberland — **Timberland** from which timber cutting is proposed in **forest planning**.

Summer fallow — Cropland in semi-arid regions that is purposely kept out of production during a cropping season mainly to conserve moisture for the next season. It is common for wheat producers in semi-arid regions to rotate half their cropland to summer fallow each year.

Summer Food Service Program (SFSP) — The SFSP operates in low-income areas during the summer months to provide meals and snacks to children in summer day camps. Federal support consists of guaranteed cash and commodity assistance and support for administration and operating expenses. It is authorized through FY2003 under the **National School Lunch Act**, administered by the **USDA**, and funded by annual agriculture appropriations.

Sunflower Oil Assistance Program (SOAP) — Along with the **Cottonseed Oil Assistance Program (COAP)**, SOAP was one of two programs under which bonuses were awarded to exporters of U.S. vegetable oil to assist in exports to targeted markets. The SOAP was authorized beginning in FY1988 with funds made available under **Section 32** of the **Agricultural Adjustment Act of 1935**. The provision in the **Disaster Assistance Act of 1988**, which had authorized the SOAP, expired at the end of FY1995 and was not extended in the **FAIR Act of 1996**. However, the **USDA** appropriations act for FY1996 (P.L. 104-37) provided authority to operate the program in FY1996. **Export subsidies** for sunflower oil can be financed under the **Export Enhancement Program (EEP)**.

Super 301 — Section 301 of the **Trade Act of 1974**, as amended by section 1302 of the **Omnibus Trade and Competitiveness Act of 1988**, required the **U.S. Trade Representative**, within 30 days following the National Trade Estimates (foreign trade barriers) Report to Congress in 1989 and 1990, to identify U.S. trade liberalization priorities. This identification included priority trade barriers as well as priority countries and estimates of the amount by which U.S. exports would be increased if the barriers did not exist. USTR was required to initiate (regular) section 301 investigations on all priority practices within 21 days after submitting the report to the House Ways and Means and Senate Finance Committees. USTR was required to negotiate agreements which provided for the elimination of, or compensation for, the priority trade barriers within 3 years after the initiation of the investigation. This authority expired in 1990. However, since 1994, Super 301 has been implemented by USTR under an executive order of the President. Legislation introduced in the 106th Congress (S. 19 and S. 101) would establish a super 301 for agriculture.

Superfund — The hazardous substance cleanup program created by the **Comprehensive Environmental Response, Compensation, and Liability Act** of 1980 (CERCLA, P.L. 99-499, December 11, 1980), as amended. The normal application of fertilizer is explicitly excluded from the definition of "release" under CERCLA.

Supplement — For child nutrition programs, this refers to federally reimbursed snacks that are served to children in participating facilities. Also used to refer to the addition of nutrients in the diet by the use of vitamins.

Supply control programs — Any of several government programs to influence the supply of farm products on the market. Some, such as **acreage allotments** and **marketing quotas**, are considered mandatory, in that farmers who produce or market in excess of assigned levels can be legally penalized. Others, such as cropland **set-asides**, **acreage reductions** and diversions, and farmer-held **grain reserves**, are considered voluntary, in that farmers are usually encouraged to participate through financial incentives.

Support price — A legislated minimum price for a particular commodity, maintained by **USDA** through a variety of mechanisms, such as **nonrecourse loans** and purchase programs.

Surface runoff — Precipitation, snow melt, or irrigation water in excess of what can **infiltrate** the soil surface and be stored in small surface depressions; a major cause of **erosion** and transporter of **nonpoint source pollutants**.

Surplus — The amount by which available supplies are greater than the quantity that will bring producers an adequate income. A surplus may be due to production outrunning demand, a decline in consumption, or a general decline in consumer income or buying power. Historically, **commodity programs** have been designed to deal with “problems” of surplus, and the Secretary of Agriculture has had discretion to determine whether an item is in surplus and should be removed from market channels to shore up prices. Approaches have included cropland diversion to reduce production, long-term storage of excess supplies, and purchase and donation of surplus items for foreign or domestic food program use.

Suspension — A process under the **Federal Insecticide, Fungicide, and Rodenticide Act** by which the **Environmental Protection Agency** can suspend the use of a **pesticide** in order to prevent an imminent hazard resulting from its continued use. An emergency suspension takes effect immediately; under an ordinary suspension a registrant can request a hearing before the suspension goes into effect. Such a hearing process might take several months.

Sustainable agriculture — A systematic approach to agriculture that focuses on ensuring the long-term productivity of human and natural resources for meeting food and fiber needs. The **FACT ACT of 1990** defines sustainable agriculture as “an integrated system of plant and animal production practices having a site-specific application that will, over the long term (a) satisfy human food and fiber needs; (b) enhance environmental quality and the natural resource base upon which the agricultural economy depends; (c) make the most efficient use of non-renewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; (d) sustain the economic viability of farm operations; and (e) enhance the quality of life for farmers and society as a whole.” Examples of sustainable agricultural practices include use of crop rotation, animal and green manures, soil and water conserving tillage systems such as **no-till** planting methods, and **integrated pest management**. The **Food Security Act of 1985** authorized a competitive grants program, now called the Sustainable Agriculture Research and Education (SARE) Program that supports farmer-scientist teams performing on-farm experiments in less chemical-intensive methods of pest control and soil fertility and other sustainable practices. The program also trains **Cooperative Extension** personnel to work with farmers to encourage adoption of sustainable practices.

Sustained yield — An output of **renewable resources** that does not impair the productivity of the resource; it implies a balance between harvesting and incremental growth or replenishment.

Swampbuster — A provision of the **Food Security Act of 1985** that discourages the conversion of **wetlands** to cropland use. Producers converting a wetland area to cropland lose eligibility for several federal **farm program** benefits. Benefits are lost from when water levels are lowered to facilitate agricultural production until they have been restored. Several types of wetlands and wetlands in specified situations are exempt. Exceptions include conversions that began before December 23, 1985, conversions of wetlands that had been created artificially, crop production on wetlands that became dry through drought,

and conversions that **USDA** has determined have minimal effect on wetland values. Swampbuster provisions were amended in the **FAIR Act of 1996** to provide greater flexibility for producers and landowners.

SWCD — Soil and Water Conservation District; or **Soil Conservation District**.

SWCS — Soil and Water Conservation Society.

SWDA — Solid Waste Disposal Act. See **Resource Conservation and Recovery Act**.

Sweet potato whitefly — an insect pest of cotton, fruit and vegetable, and greenhouse crops. The **Animal and Plant Health Inspection Service** works cooperatively with producers to implement pest management strategies based on **integrated pest management** and **biological control** techniques.

21st Century Agriculture — See **Commission on 21st Century Production Agriculture**.

T value (or T level) — For a specific soil, the maximum average annual soil loss expressed as tons per acre per year that will permit current production levels to be maintained economically and indefinitely; the **soil loss tolerance** level. T values range from 2 to 5 tons per acre per year. According to the 1992 **national resources inventory**, about 63 million acres of highly erodible cropland are still eroding at more than their T value, including 21 million acres that are still eroding at three times T.

TA — Technical assistance.

Taking endangered or threatened species — “Taking,” in layman’s terms, means killing or removing a plant or animal of a **species** listed under the **Endangered Species Act (ESA)**, or seriously damaging its chances of reproduction. Except under specified circumstances, taking is forbidden under the ESA. The definition of taking is one of the current issues in the ESA debate. Incidental take of a listed species is a taking which occurs in the course of some other legal activity, whether carried out by a federal or a nonfederal entity.

Takings (of property) — The Fifth Amendment to the Constitution, and comparable provisions in state constitutions, bar the “taking” of private property by government unless just compensation is paid to the property owner. Initially, the Supreme Court recognized only government seizures and physical invasions of private property as “takings.” Thus, recurring flooding of a farm as the result of a government dam would probably be a taking. In 1922, the Court expanded the concept of takings to include government actions that merely restrict the economic use of private property, if that restriction is severe enough. However, the line between restrictions that take and those that do not has proved elusive; the Court repeatedly stresses that the determination is an *ad hoc*, case-by-case one. The agricultural community perceives a threat of takings from federal efforts to preserve wetlands and endangered species, though actual court decisions finding takings of farmland are few. The takings issue has also worked against farmers by virtue of a recent case striking down a “right to farm” law that curtailed the right of owners of residential properties adjacent to farms to sue for nuisance based on farm operations. That law was held to effect a taking of a negative easement of the adjacent properties.

Talmadge-Aiken plants — The approximately 250 meat and poultry plants in 10 states where **USDA** has contracted with state agency inspectors to conduct federal inspection activities. They are now formally known as Federal-State Cooperative Inspection Plants. Even though state employees are conducting the inspection in these plants, they are under the federal rather than **state inspection programs**.

Target price — Price levels established by past law for wheat, corn, grain sorghum, barley, oats, rice, and upland cotton. Prior to 1996, farmers participating in annual federal **commodity programs** received **deficiency payments** based on the difference between the target price and the higher of the national market price during a specified time period, or the

nonrecourse loan rate. The **FAIR Act of 1996** eliminated target prices and replaced deficiency payments with fixed **production flexibility contract** payments through 2002.

Targeted Export Assistance Program (TEA) — A program authorized by the **Food Security Act of 1985** to assist U.S. producer groups in promoting exports of products adversely affected by foreign governments' unfair trade practices. TEA is the predecessor of the **Market Promotion Program (MPP)**, which was replaced by the **Market Access Program (MAP)** in 1996.

Targeting — A policy concept under which government **farm program** benefits would be directed toward specified groups of producers. One example of targeting might be to focus farm payments on small to medium-sized family owned and operated farms.

Tariff — A tariff is a list or schedule of taxes, while a **duty** is the tax imposed on a specific item. However, the terms duty and tariff have come to be used interchangeably. In international trade, these taxes must be paid to a government on selected imported or sometimes exported goods. The **Harmonized Tariff Schedules of the United States (HTSUS)** lists the items on which the United States levies duties. Tariffs may be protective of domestic producers (keeping **domestic prices** higher than **world prices**) or serve as revenue generators for the government. Tariffs are considered transparent trade barriers in contrast to several **nontariff barriers**. The **Uruguay Round** Agreement on Agriculture requires conversion of nontariff barriers to **bound tariffs**.

Tariff Act of 1930 — P.L. 71-361, also known as the Smoot-Hawley Act, raised U.S. import tariffs to their highest levels in history, prompting U.S. trading partners to adopt their own retaliatory trade barriers and exacerbating the Great Depression. Ensuing U.S. policies have virtually eliminated the Act's most onerous provisions, but some elements of the amended law still serve as the authorizing vehicle for a number of general trade provisions of importance to the agricultural sector, including **countervailing duties**, **antidumping duties**, and **country-of-origin labeling**.

Tariff rate quota — A trade policy tool used to protect a domestically-produced commodity or product from competitive imports. A tariff rate quota (TRQ) combines two policy instruments that nations historically have used to restrict such imports: **quotas** and **tariffs**. In a TRQ, the quota component works together with a specified tariff level to provide the desired degree of import protection. Imports entering during a specific time period under the quota portion of a TRQ are usually subject to a lower, or sometimes a zero, tariff rate. Imports above the quota's quantitative threshold face a much higher (usually prohibitive) tariff. Currently, TRQs apply to U.S. imports of certain dairy products, beef, cotton, peanuts, sugar, certain sugar-containing products, and tobacco.

Tariff schedule — A list or schedule of duties imposed in the conduct of international trade. The **Harmonized Tariff Schedules of the United States (HTSUS)** lists the items on which the United States levies a **duty** (or **tariff**) and/or imposes an import or **tariff rate quota**. A specific duty, and/or quota amount, is assigned to each item on the schedule.

Tariffication — The conversion of **nontariff barriers** to **tariffs** or **tariff-rate quotas**.

Taylor Grazing Act of 1934 (TGA) — P.L. 73-482 (June 28, 1934) provides for the regulation of grazing on the public lands (excluding Alaska) to improve **rangeland** conditions and stabilize the western livestock industry. The law initially permitted 80 million acres of previously unreserved public lands of the United States to be placed into grazing districts to be administered by the **Department of the Interior**. As amended, the law now sets no limit on the amount of lands in grazing districts. There are currently approximately 150 million acres in grazing districts.

TCDD — **Dioxin**.

TCK smut — *Tilletia controversa kuhn* is a wheat fungus present in the Pacific Northwest. It takes on policy significance because China applies a **zero tolerance** on TCK spores resulting in a ban since 1974 on shipments from the Pacific Northwest.

Until the summer of 1996, China accepted shipments of U.S. wheat from the Gulf coast, even if they contained traces of TCK and negotiated price discounts with the shippers to cover the cost of decontamination before the affected wheat was unloaded. But in June 1996, China rejected cargoes of U.S. wheat with traces of TCK. China and the United States since have exchanged scientific teams as part of an effort to resolve the problem.

TEA — Targeted Export Assistance Program

Team nutrition— Coordinated effort by the **Food and Consumer Service** to implement the **school meals initiative for healthy children**

Technical barriers to trade (TBTs)— A category of **nontariff barriers** to trade, TBTs are the widely divergent measures that countries use to regulate markets, protect their consumers, or preserve their natural resources (among other objectives), but they also can be used (or perceived by foreign countries) to discriminate against imports in order to protect domestic industries. TBTs with the greatest impact on agriculture are the various **sanitary and phytosanitary (SPS) measures** designed to protect humans, animals, and plants, from diseases, pests, and other contaminants. Examples of TBTs, other than SPS measures, are rules for product weight, size, or packaging; ingredient or identity standards; mandatory labeling; shelf-life restrictions; and import testing and certification procedures. The broad term “technical barriers to trade” is frequently applied to all of these types of measures, even where they might be legitimate and consistent with bilateral or multilateral trading rules. However, trade experts widely view TBTs as having great potential for being misused by importing countries as nontransparent (disguised or unclear) obstacles to trade. (See **transparency**.)

TEFAP — Temporary Emergency Food Assistance Program

TEGMA — Transportation, Elevator and Grain Merchants Association.

Temporary Emergency Food Assistance Act of 1983 (TEFAA) — P.L. 98-8 (March 24, 1983) was a supplemental appropriations act for FY1983 that among other things explicitly authorized a discretionary commodity donation effort begun in 1981 by the **USDA**. The initial effort was limited to disposal of excess commodities held by the **Commodity Credit Corporation** by donating them to states. This law also authorized funding to help states and local emergency feeding organizations with the storage and distribution costs of handling the commodities. This is the origin of the current **Emergency Food Assistance Act of 1983** (P.L. 98-92) as amended.

Temporary Emergency Food Assistance Program (TEFAP) — A program that evolved out of a surplus commodity donation efforts begun by the **USDA** in late 1981 to dispose of surplus foods (especially cheese) held by the **Commodity Credit Corporation**. This program was explicitly authorized by the Congress in 1983 when funding was provided to assist states with the costs involved in storing and distributing the commodities. The program originally was entitled the Temporary Emergency Food Assistance Program when authorized under the **Temporary Emergency Food Assistance Act of 1983**. The word “temporary” was dropped from statute and program title in the **FACT Act of 1990**. The acronym **EFAP** now is used for this program.

Tender — As a verb, tender announces the intention of delivering a notice or an actual commodity; i.e., XYZ Grain Growers, Inc., tenders six cars to North Pacific at the time of shipment for application on an open sales contract. As a noun, tender normally denotes a notice of an intent to buy. The tender usually spells out in detail quantities to be purchased, desired quality, time of shipment, country of origin, and all inspection, weighing, and payment terms. Overseas buyers usually issue tenders to ensure the maximum competition for a given piece of business. Also, the action of receiving offers, determining the best one, deciding whether, and how much, to buy, and announcing the awards of contracts. Ordinarily, a buyer reserves the right to reject any or all of the offers submitted.

Teratogen— A chemical that causes nonhereditary birth defects in a developing fetus. Teratogenicity is taken into account in assessing the toxicity of pesticides and other chemicals. Both level and timing of exposure to teratogens determine health effects.

Terminal elevator— A large elevator (warehouse) facility with the capacity to transfer grain to rail cars, barges, or ships for transport to domestic or foreign markets. Terminal elevator markets are used as base locations for **posted county prices**.

Terminal market— A central site, often in a metropolitan area, that serves as an assembly and trading place for agricultural commodities. Terminal markets are usually at or near major transportation hubs.

Terminator seeds — A descriptive term used by some for seeds that have been genetically engineered to produce a crop whose first generation produces sterile seeds, thus preventing a second generation from being grown from seeds saved from the first. This technology (currently 3 to 5 years from commercial application) was developed under a **Cooperative Research and Development Agreement** between the **Agricultural Research Service** and a private seed company. Supporters of the technology state that it is a way to build patent protection directly into high-value, genetically engineered crop varieties and thus recoup high research investment costs. Opponents are concerned that the technology could have harmful environmental and public health effects and argue that it would have an inequitable impact on farmers in developing countries who rely on saved seed for replanting and for developing locally adapted varieties.

Terrace — An embankment, ridge, or leveled strip constructed across sloping soils on the contour, or at right angle to the slope. The terrace intercepts surface runoff so that it can soak into the soil or flow slowly to a prepared outlet, decreasing rates of soil **erosion**.

TFP — Thrifty Food Plan.

Threatened species — Species listed by regulation under ESA, and are generally given a lower level of protection than **endangered species**.

Three entity rule — Federal law currently sets an annual cap on the amount of **direct payments** that a **person** may receive from major **farm programs**. A provision in this law permits a person to receive payments up to the full cap on the first farm in which the person has a substantial beneficial interest, and up to half the full cap on each of two additional farms; hence the so-called “three-entity rule.”

Threshold — The lowest non-zero dose of a chemical at which a specified measurable effect occurs. Sometimes used to refer to the income level above which an applicant for **food stamp** benefits would be ineligible.

Thrifty Food Plan (TFP) — The TFP is one of four **USDA**-designed food plans specifying foods and amounts of foods to provide adequate nutrition. It is used as the basis for designing food stamp program benefits. It is the cheapest food plan and is priced monthly using the price data collected for the **consumer price index** (CPI). However, it is not the same as the food components of the CPI. The monthly cost of the TFP used for the **food stamp program** represents a national average of prices (four-person household consisting of an adult couple and two school-age children) adjusted for other household sizes through the use of a formula reflecting economies of scale. For food stamp purposes, the TFP as priced each June sets maximum benefit levels for the fiscal year beginning the following October.

Timberland — Lands that can grow annually a minimum amount of wood that can be used to produce commercial wood products; excludes lands where timber cutting is prohibited by law or by executive decision.

Timber sale — A contract for the sale of federal timber to a private purchaser with the right to cut and remove trees for an agreed-upon **stumpage price**; the contract includes an estimated volume of wood and an **appraised stumpage price**, which is the basis for competitive bidding by purchasers.

Tobacco Price Support Program — The tobacco **price support** program uses a combination of **marketing quotas** and **nonrecourse loans** to keep prices stable and higher than they would be otherwise. The marketing quotas limit production in order to raise prices. Nonrecourse loans allow producers to hold tobacco stocks for long periods in order to balance supplies with market demand conditions. By law since 1982, tobacco loan program operations are required to function at **no net cost** to taxpayers. A no net cost **assessment** is collected on all leaf tobacco sold to build a reserve fund that reimburses the **Commodity Credit Corporation** for any losses of loan principal and interest.

Tolerance, pesticide residue — The amount of **pesticide** residue allowed by regulation to remain in or on a food sold in interstate commerce. Whenever a pesticide is **registered** for use on a food or a feed crop, a tolerance (or exemption from the tolerance requirement) must be established. The **Environmental Protection Agency** establishes the tolerance levels, which are enforced by the **Food and Drug Administration** and **USDA**.

Toxic Substances Control Act (TSCA) — P.L. 94-469 (October 11, 1976) authorizes the **Environmental Protection Agency** to regulate toxic substances (any chemical that may present a risk of unreasonable harm to man or the environment). By definition, however, the Act excludes from EPA regulation under TSCA certain substances, including pesticides (as defined by and regulated under the **Federal Insecticide, Fungicide, and Rodenticide Act**), tobacco or tobacco products, and any food or food additive (as defined by and regulated under the **Poultry Products Inspection Act**, the **Federal Meat Inspection Act**, the **Egg Products Inspection Act**, or the **Federal Food, Drug, and Cosmetic Act**).

TPRG — Trade Policy Review Group.

Traceback — See **animal identification and traceback**.

Trade Act of 1974 — P.L. 93-618 provided the President with tariff and nontariff trade barrier negotiating authority for the Tokyo Round of multilateral trade negotiations. It also gave the President broad authority to counteract injurious and unfair foreign trade practices. **Section 201** of the Act requires the **International Trade Commission** to investigate petitions filed by domestic industries or workers claiming injury or threat of injury due to expanding imports. Investigations must be completed within 6 months. If such injury is found, restrictive measures may be implemented. Action under Section 201 is allowed under the GATT escape clause, GATT Article XIX. **Section 301** was designed to eliminate unfair foreign trade practices that adversely affect U.S. trade and investment in both goods and services. Under Section 301, the President must determine whether the alleged practices are unjustifiable, unreasonable, or discriminatory and burden or restrict U.S. commerce. If the President determines that action is necessary, the law directs that all appropriate and feasible action within the President's power should be taken to secure the elimination of the practice.

Trade Adjustment Assistance — Assistance provided by the Departments of Labor and Commerce to workers and firms that are adversely affected by increased imports. The Labor Department administers a program offering certified workers cash benefits for direct trade readjustment allowances and service benefits that include allocations for job search, relocation, and training. The Department of Commerce sponsors programs that provide technical services to certified firms designed to restore the economic viability of U.S. industries adversely affected by international import competition. This assistance is authorized by subchapter II of the **Trade Act of 1974**. The Act was amended most recently in 1993, when “transitional” assistance was approved for workers affected by increased imports from Canada or Mexico or by shifts of U.S. production to those countries as a result of the **North American Free Trade Agreement (NAFTA)**. Authority to extend trade adjustment assistance expires on June 30, 1999, but funds are appropriated to cover all of FY1999.

Trade Agreements Act of 1979 — P.L. 96-39 (July 26, 1979) provided the implementing legislation for the Tokyo Round of **multilateral trade agreements** in such areas as customs valuation, standards, subsidies, and government procurement.

Trade and Tariff Act of 1984 — P.L. 98-573 (October 30, 1984) clarified the conditions under which unfair trade cases under Section 301 of the **Trade Act of 1974** can be pursued. It also provided bilateral trade negotiating authority for the U.S.-Israel Free Trade Agreement and the U.S.-Canada Free Trade Agreement, and set out procedures to be followed for congressional approval of future bilateral free trade agreements.

Trade Policy Committee — The TPC is the senior U.S. Government interagency trade committee established to provide broad guidance on trade issues. It is chaired by the **U.S. Trade Representative (USTR)** and is comprised of other cabinet officers, including the Secretary of Agriculture. The Trade Policy Review Group (TPRG) which reports to the TPC is chaired by the Deputy USTR and is comprised of sub-cabinet representatives, including the Under Secretary of Agriculture for Farm Services and Foreign Agriculture. The Trade Policy Staff Committee, the level at which position papers are initiated, is chaired by a Deputy Assistant USTR and has representation from other cabinet departments including **USDA**.

Transfer of development rights (TDR) — Property rights that may not be used on the land from which they were derived; usually they are sold from areas where uses are restricted, such as active agricultural areas, to receiving or growth areas where development is being encouraged.

Transgenic crop — See **genetic engineering**.

Transmissible spongiform encephalopathies (TSEs) — The name of a number of degenerative brain diseases that infect humans and animals. For example, **bovine spongiform encephalopathy (BSE)** infects cattle; **scrapie** infects sheep and goats; **Creutzfeldt-Jacob disease (CJD)** infects humans.

Transparency — A **World Trade Organization** principle stipulating that a country's policies and regulations affecting foreign trade should be clearly communicated to its trading partners. For example, out of recognition that **sanitary and phytosanitary measures** may (sometimes deliberately) be unclear, arbitrary, or capricious, recent international trading agreements have provisions calling on countries to notify others, in advance, about any measures that could affect trade, to fully explain them, and to provide a means for commenting on them.

Transshipment — Refers to the primary export of U.S. farm products to certain countries (notably Canada and the Netherlands) and their further shipment to other countries. Unless there is "adjustment for transshipment," export statistics can reflect a distorted picture.

Tree Assistance Program (TAP) — A disaster assistance program, administered by the **Farm Service Agency**, that makes payments for lost orchard trees and vines that produce annual crops. The program has been funded on an *ad hoc* basis, usually by emergency supplemental appropriations. Most recently, the program was funded for losses incurred between October 1, 1997, and September 30, 1998.

Tree measurement sales — A timber sale where purchasers pay the total bid value (the estimated timber volume times the **stumpage price**) regardless of the volume of timber actually removed.

Trickle irrigation / drip irrigation — Method in which water drips to the soil from perforated tubes or emitters. This **irrigation** technology is water conserving compared to flooding, **furrows**, and sprinklers.

Triple base plan — Also called the flexible base plan. A proposal under which farmers who raise **program crops** would receive program payments only on a certain percentage of their **permitted acreage**. A producer participating in a federal **price support** program actually would have three categories of **base acres** for program purposes: 1) permitted acres on which **deficiency payments** would be made; 2) permitted acres on which no federal payments would be made, but could be planted to other crops, either specified or unspecified; 3) idled acres (those required to be set aside under acreage reduction rules) where no crops other than those for conservation could be planted. Triple base is another name for what came to be

known as **normal flex acres**. **Production flexibility contracts** now have eliminated the linkage between payments and actual plantings.

TRQ — Tariff-rate quota.

TSCA — Toxic Substances Control Act.

TSEs — Transmissible spongiform encephalopathies.

Two-tiered pricing — Any **farm program** system under which commodities grown for domestic use are supported at one level and those grown for export markets at another, lower level. The **peanut price support program** uses a two-tiered pricing system.

U.S. Trade Representative (USTR) — See **United States Trade Representative**.

UEP — United Egg Producers.

UFFVA — United Fresh Fruit and Vegetable Association.

UIC — Underground injection control.

UMR — Usual market requirements.

UNCTAD — United Nations Commission on Trade and Development.

Underground storage tank — For purposes of Subtitle I of the **Resource Conservation and Recovery Act**, this is any tank used to store petroleum or hazardous substances regulated under the **Comprehensive Environmental Response, Compensation, and Liability Act**, the volume of which is 10% or more beneath the surface of the ground. This does not include, among other things, any farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes, tanks used for storing heating oil for consumptive use on the premises, or septic tanks.

Uniform grain and rice storage agreement (USGRSA) — The contractual arrangement governing transactions between the **Farm Service Agency** and private grain storage companies. Commercial warehouses storing grain under a **nonrecourse loan** or owned by the CCC must have a signed USGRSA.

Unique farmland — Land, other than **prime farmland**, that has combined conditions to produce sustained high quality and high yields of specialty crops, such as citrus, nuts, fruits, and vegetables when properly managed.

Unit train — Generally refers to a string of freight cars that all carry the same commodity, frequently over long distances. Unit trains are widely used to haul such raw commodities as coal and grains, because they are less costly for railroads than mixed freight shipments. Unit trains have become a point of contention between agricultural shippers and the railroads, mainly because the shippers are increasingly being asked to fill longer unit trains (for example, 104 hoppers), which many local elevators are not equipped to handle.

UFW — United Farmworkers.

United Nations Conference on Trade and Development (UNCTAD) — A UN agency that focuses attention on international economic relations and on measures that might be taken by developed countries to accelerate economic development in developing countries.

United States-Canada Free Trade Agreement Implementation Act of 1988 — P.L. 100-449 (September 28, 1988) implemented the bilateral trade agreement between the United States and Canada, including agricultural trade. The agreement would phase out tariffs between the two countries over 10 years and revise other trade rules.

United States Code (USC) — The consolidation and codification of all the general and permanent laws of the United States. The U.S. Code is divided into 50 titles that represent broad subject areas. Title 7 is Agriculture. Each title is divided into chapters followed by subdivisions into parts covering specific areas. For example, 7 USC Chapter 45 Subchapter III deals with the **Conservation Reserve Program**. Regulations issued to administer the laws are first published in the **Federal Register** and then in the **Code of Federal Regulations**.

United States Grain Standards Act (USGSA) of 1916 — P.L. 64-190 (August 11, 1916), as amended, authorizes the **Grain Inspection, Packers and Stockyards Administration** to establish official marketing standards (not health and safety standards) for grains and oilseeds, and requires that exported grains and oilseeds be officially weighed and inspected. Domestically marketed grain and oilseeds may be, but are not required to be, officially inspected. Export inspections are carried out by federal inspectors or by federally supervised state inspection agencies, called delegated official inspection agencies. Official inspections of domestically traded grain is done by federally supervised state agencies and private companies, called designated official inspection agencies. Typically, marketing standards describe the physical characteristics (such as weight, damaged kernels, foreign material, shrunken and broken kernels, and defects) of the commodity and serve as contract language to facilitate marketing. Official weighing and inspection is paid for on a fee-for-service basis, not with federal funds. Major changes to the law were adopted in the USGSA Amendments of 1968, the USGSA of 1976 (P.L. 94-582), and the **Grain Quality Improvement Act of 1986** (P.L. 99-641).

United States Trade Representative (USTR) — The Office of the U.S. Trade Representative, originally Office of the Special Trade Representative (STR), is responsible for developing and coordinating international trade, commodity, and direct investment policy, and leading or directing negotiations with other countries. It is headed by the United States Trade Representative (also USTR), a Cabinet-level official with the rank of Ambassador. The agency provides trade policy leadership and negotiating expertise on all matters within the **World Trade Organization (WTO)**; trade, commodity, and direct investment matters dealt with by international institutions such as the **Organization for Economic Cooperation and Development (OECD)** and the **United Nations Conference on Trade and Development (UNCTAD)**; export expansion policy; industrial and services trade policy; international commodity agreements and policy; bilateral and multilateral trade and investment issues; trade-related intellectual property protection issues; and import policy. The agency has administrative responsibility for the **Generalized System of Preferences (GSP)**; **Section 301** complaints against foreign unfair trade practices; unlawful and unfair import competition under Section 337; and import relief cases under **Section 201**. Five Members from each of the House and Senate are formally appointed under statute as official Congressional advisors on trade policy, and additional Members may be appointed as advisors on particular issues or negotiations.

Universal soil loss equation — A formula used to estimate **erosion** rates by considering climate, soils, and topographic conditions at a site, as well as any degree to which the use and management of the soil reduce erosion. It is being replaced by a **revised universal soil loss equation**.

Unreasonable risk — Under the **Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)**, “unreasonable adverse effects on the environment means (1) any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of any pesticide, or (2) a human dietary risk from residues that result from a use of a pesticide in or on any food...” in excess of that allowed by a **tolerance**.

Upland cotton — The predominant variety of cotton grown in the United States; upland cotton has long been eligible for government **price support** and is now eligible for **production flexibility contract** payments.

Uplands — Land at higher elevations than the alluvial plain or low stream terrace; all lands outside the **riparian-wetland** and aquatic zones. Used often in discussion of federal land management practices.

UR — Uruguay Round.

Urban and built-up areas — A classification in the **natural resources inventory**, now called developed areas, that includes cities, villages, other build-up areas of more than 10 acres, industrial sites, railroad yards, cemeteries, airports, golf courses, shooting ranges, institutional and public administration sites, and similar areas. The 1992 **natural resources inventory** placed over 92 million acres in this category, an increase of 14 million acres since 1982.

Urban growth boundary — An agreed-upon line that allows development and urban-type services on one side and retains open space, agriculture, and other less intense uses on the other. These lines typically are set by local government at a place that can encompass many years of development at anticipated rates on one side.

Uruguay Round — The 8th round of **multilateral trade negotiations (MTN)** conducted within the framework of the GATT. Launched in Punta del Este, Uruguay, in 1986 and concluded in December 1993, the final Uruguay Round agreement signed in Marrakech in April 1994, embraces 110 participating countries (“contracting parties”) and came into effect in 1995. It is being implemented over the period to 2000 (2004 in the case of developing country contracting parties) under the administrative direction of the newly created **World Trade Organization (WTO)**. The Uruguay Round Agreement on Agriculture, administered by the World Trade Organization, brings agricultural trade more fully under the GATT. It provides for converting quantitative restrictions to tariffs and for a phased reduction of tariffs. The agreement also imposes rules and disciplines on agricultural **export subsidies**, domestic subsidies, and **sanitary and phytosanitary (SPS) measures**.

Uruguay Round Agreements (URA) Act of 1994 — P.L. 103-465 (December 8, 1994) approved and implemented the trade agreements concluded in the **Uruguay Round** of multilateral trade negotiations conducted under the auspices of the GATT, including the Agreement on Agriculture, the Agreement on **Sanitary and Phytosanitary (SPS) Measures**, and the Agreement on Technical Barriers to Trade (TBT). The law allowed for the reduction of **tariffs** and government subsidies on agricultural products and prohibits the use of **Section 22** fees and quotas with respect to products imported from WTO members. The law also extended the authorization of funding for the **Export Enhancement Program (EEP)** and **Dairy Export Incentive Program (DEIP)** through 2001 and eliminated the requirement that the EEP be targeted to respond to unfair trade practices. The law eliminated the requirement that the **Market Promotion Program** be used to counter the adverse effects of unfair trade practices. The law also included a Sense-of-Congress resolution that the President should consult with other nations to discuss appropriate levels of food aid commitments to developing countries.

USAA — U.S. Apple Association.

USAHA — U.S. Animal Health Association.

USAID — U.S. **Agency for International Development**.

USC — **United States Code**.

USDA — U.S. **Department of Agriculture**.

USDEC — U.S. Dairy Export Council.

User fees — Any of various charges and assessments levied on a specifically delineated group that is directly subject to a particular government service, program, or activity; such fees are not levied on the general public. User fees are intended to be used solely to support that service, program, or activity. For example, about 75% of the \$225 million budget of the **Agricultural Marketing Service**, which provides a variety of inspection and **grading**, market news reporting, and other

services to the agricultural community, comes from user fees; the other 25% is appropriated funds. Similarly, grain inspection is paid for through user fees.

User marketing certificates — See **step 2 payments**.

USITC — U.S. **International Trade Commission**.

USMEF — U.S. Meat Export Federation.

USTR — **United States Trade Representative**.

Usual market requirements (UMR) — A measure of the import requirement of a country met through commercial purchases; usually defined as a five-year average. The UMR is used to determine whether concessional sales (e.g., under Title I of **P.L. 480**) will adversely affect normal commercial agricultural trade.

Utilization rates — The percentage of milk in federal **milk marketing orders** that is used in each of the classes: Class III and IIIa, cheese, butter, and nonfat dry milk; Class II, all other manufactured products; Class I, milk used for fluid consumption.

UV — Ultraviolet.

Value-added agriculture — A concept that has gained currency in the **small farm** policy debate, in response to the concern that the farm value of the consumer food dollar continues to decrease (which, some small farm advocates contend, is due to the excessive profit-taking by processors and retailers). Value added agriculture might be any means to capture a larger share of the consumer food dollar by farmers. Examples include **direct marketing**; farmer ownership of processing facilities; and producing farm products with a higher intrinsic value (such as identity-preserved grains, **organic** produce, free-range chickens; etc.), for which buyers are willing to pay a higher price than for more traditional farm commodities.

Value-added products — In general, products that have increased in value because of processing; such products include wheat flour and soybean oil. Livestock are considered value added products because they have increased the value of pasture and feed grains going into them. The terms value-added and high-value are often used synonymously.

Value-based pricing — **Packers** are increasingly using this method of determining how much to pay cattle and hog producers for animals. Rather than simply paying a fixed rate based on the weight of the animals, value-based pricing attempts to establish the individual merits of each animal (or lot) purchased, factoring quality characteristics such as yield, fat thickness, likely **grade** (such as choice, select, etc.) into a formula to arrive at the price that will be paid. Under this system, the producer assumes the financial responsibility that the animals, once slaughtered, will meet these criteria. In traditional pricing methods, it is the packer that bears the greater financial risks associated with the uncertain quality of the animals purchased.

Variable import levy — A charge levied on imports that raises their price to a level at least as high as the **domestic price**. Such levies are adjusted frequently (hence “variable”) in response to changes in world market prices, and are imposed to defend administered prices set above world market prices. Under the **Uruguay Round** Agreement on Agriculture, the variable levies of the EU have been converted into fixed **tariffs** or **tariff-rate quotas**.

VAT — Value-added tax.

Vegetative controls — **Nonpoint source pollution** control practices that involve planting **cover crops** to reduce **erosion** and minimize loss of pollutants.

VER — **Voluntary export restraint agreement**.

Vertical coordination — The process of ensuring that each successive stage in the production, processing, and marketing of a product is appropriately managed and interrelated to the next, so that decisions about what to produce, and how much, are communicated as efficiently as possible from the consumer to the producer. Agricultural economists believe that vertical coordination of markets is particularly important in the food industry because of its complexity, the large number of firms that participate in one or more stages, and the relative perishability of the products involved. **Vertical integration** is a type of vertical coordination, but the latter does not necessarily require that a single organization own or control all of the stages. For example, the use of **contracts** and **marketing agreements** between buyers and sellers, and the availability of timely, accurate price and other market information are methods for achieving vertical coordination.

Vertical integration — The integrating of successive stages of the production and marketing functions under the ownership or control of a single management organization. For example, much of the broiler industry is highly vertically integrated in that processing companies own or control the activities from production and hatching of eggs, through the growth and feeding of the chickens, to slaughter, processing, and wholesale marketing.

Vesicular stomatitis — *Vesicular stomatitis* is a viral disease that can affect horses, swine, cattle, and other ruminants. It causes affected livestock to develop blisters in the mouth and on the dental pad, hooves, and teats. These blisters swell and break, leaving raw tissue that causes affected animals to become lame and to refuse food and water. The disease also is of concern because its symptoms are similar to those of foot-and-mouth disease, a devastating foreign disease of clovenhoofed animals that was eradicated from the United States in 1929. The only way to diagnose and differentiate these diseases is through laboratory tests. There was an occurrence of *vesicular stomatitis* in the southwestern United States in 1985, in 1995, and again in 1998. People who handle infected animals also can become infected. APHIS is working with state officials to identify all cases of the disease and prevent its spread.

Veterinary biologics — Vaccines, antigens, antitoxins and other preparations made from living organisms (or genetically engineered) and intended for use in diagnosing, treating, or immunizing animals. Unlike some pharmaceutical products, such as antibiotics, most biologics leave no residues in animals. Veterinary biologics are regulated by the **Animal and Plant Health Inspection Service**, which licenses the facilities that produce them and conducts a program to ensure that animal vaccines and other veterinary biologics are safe, pure, potent, and effective.

Veterinary equivalency — The mutual recognition by two or more countries that each party's safety and sanitation standards for animal products, even where not identical, provide an equivalent level of protection to public and animal health. Aimed at facilitating trade, the practical effect of veterinary equivalency is that each country's individual products and facilities will not have to submit to the separate standards of importing countries and to cumbersome and costly inspections by foreign reviewers. Veterinary equivalency has been a contentious issue for the United States and **European Union (EU)**; the two parties in 1997 agreed in principle to an agreement recognizing each other's standards, but it had not been finalized by early 1999 due to a series of unresolved technical disputes.

VFD — Veterinary Feed Directive.

Visegrad Countries — The countries that entered into an agreement to coordinate their policies with a view to apply for membership in the EU. The countries in the original Visegrad agreement were Poland, Hungary, and Czechoslovakia (now the Czech and Slovak Republics).

VOC — Volatile organic compounds.

Voluntary export restraint arrangement (VER) — An arrangement, usually a negotiated bilateral agreement, between countries in which suppliers or their government in an exporting country agree to limit to predetermined levels their exports of a

particular product to an importing country. Under the **Uruguay Round** Agreement on Agriculture, VERs are to be converted into fixed **tariffs** or **tariff-rate quotas**.

Vomitoxin —Deoxynivalenol (DON), also referred to as vomitoxin, is a naturally occurring **mycotoxin** produced by several species of *Fusarium* fungi. Wet and cool weather from flowering time to maturity promotes infection, resulting in scab or head blight in barley, wheat, oats, and rye. Wheat infected with scab has a tendency to have lighter weight kernels, some of which are removed during normal harvesting and cleaning operations. Vomitoxin does not represent a threat to public health among the general population. However, it can—in rare cases—produce acute temporary nausea and vomiting in humans and animals. **Food and Drug Administration** does not have an advisory level for vomitoxin in raw wheat intended for milling purposes, and relies on processors to reduce the level in finished products for human consumption to a level that does not exceed 1 part-per-million (ppm). Advisory levels also exist for animal feeds.

WAOB — World Agricultural Outlook Board.

Warehouse receipt — A document certifying possession of a commodity in a licensed warehouse. Some warehouse receipts are recognized for delivery purposes by a commodity futures exchange.

WASDE — The acronym for *World Supply and Demand Estimates*, the official monthly report on supply, demand, prices and other data for major agricultural commodities published by the **World Agricultural Outlook Board**.

Wash versus trim — **USDA** requires that any time fecal contamination is detected during meat and poultry processing, it must be removed from the carcass. At issue is how this rule has been applied and enforced by USDA in meat and poultry plants. For a number of years, poultry processors have been permitted to either rinse (wash) off or cut (trim) away such contamination, but beef processors have only been permitted to (trim) it with a knife—which they argue costs them money in lost product weight and imposes a requirement that poultry producers do not have to meet. The policy jargon for this debate is “wash versus trim.” USDA, early in 1997, clarified its **zero tolerance** rule for poultry; a year earlier it gave beef plants permission to use a new high-temperature vacuuming method to remove fecal contamination in lieu of cutting it off.

Waste treatment pond — A shallow lagoon or similar storage facility, often man-made, used to treat liquid agricultural wastes, particularly liquid manure from livestock production farms, through the interaction of sunlight, wind, algae, and oxygen. Through natural biological processes, microscopic organisms consume wastes present in the water.

Water 2000 Initiative — The program administered by the **Rural Utilities Service** whose goal is to improve the quality of drinking water in distressed rural areas with the most serious safe drinking water problems.

Water Bank Program (WBP) — A program to set aside wetlands for a period of 10 years (renewable) for conservation purposes. Participants receive annual rental payments. As these contracts expire, participants are offered the opportunity to place the land in the **Wetland Reserve Program**.

Water Quality Incentives Program — This program was authorized in the **FACT Act of 1990** and is administered by the **Farm Service Agency**. It was repealed and replaced by the **Environmental Quality Incentives Program** in the **FAIR Act of 1996**. It provided cost-share assistance to implement comprehensive water quality protection plans and was funded by earmarking a portion of the **Agricultural Conservation Program**.

Water Quality Initiative — A multi-agency effort, initiated by **USDA** in 1990, to determine relationships between agricultural activities and water quality, and develop and implement strategies that protect surface and groundwater quality. This program, which builds on earlier USDA water quality protection efforts, includes research activities, projects involving landowners, and information and data development. Landowners participate in demonstration projects, hydrologic unit area projects, water quality special projects, and water quality incentive projects.

Water quality standards— State-adopted and the **Environmental Protection Agency**-approved ambient standards for water bodies. The standards prescribe the use of the water body and establish the water quality criteria that must be met to protect designated uses, and contain policies to protect against degradation of water quality once standards are attained and maintained.

Water service contract — A type of contract, authorized by the **Reclamation Project Act of 1939**, whereby water is furnished for irrigation or municipal or miscellaneous purposes at rates to produce revenue sufficient to cover charges reimbursable to the federal government.

Waterfowl production areas — A small component of the **National Wildlife Refuge System**. There are over 2,000,000 acres of this prime duck-producing land, mostly prairie potholes in the Dakotas, Minnesota, and Montana. The **Fish and Wildlife Service** owns, leases, or holds **easements** on the lands.

Watershed — The total land area, regardless of size, above a given point on a waterway that contributes runoff water to the flow at that point. It is a major subdivision of a drainage basin. The United States is generally divided into 18 major drainage areas and 160 principal river **drainage basins** containing about 12,700 smaller watersheds.

Watershed and Flood Prevention Act of 1954 — P.L. 83-566 (August 4, 1954) established **USDA**'s small watershed program administered by the **Natural Resources Conservation Service**; purposes of projects built under this authority include flood reduction, sediment and erosion control, and water conservation. Since its inception, over \$4.2 billion has been appropriated to this program which has constructed more than 1,600 projects. Also known as the PL-566 program.

Watershed and flood prevention operations — A program area of the **Natural Resources Conservation Service** that includes Flood Prevention Operations (under the **Flood Control Act of 1944**, P.L. 78-534), Emergency Watershed Protection, and Small Watershed Operations (under the **Watershed and Flood Prevention Act of 1954**). These programs have built small **watershed** projects that reduce floods, protect watersheds, improve water quality, reduce soil **erosion**, improve water supply, and provide recreation. They involve strong partnerships with local interests.

Wellhead protection area — A surface and subsurface land area regulated to prevent contamination of a well or well-field supplying a public water system. This program, established under the **Safe Drinking Water Act**, is implemented through state governments.

WEQ — Wind erosion equation.

Wetlands — Areas of predominantly **hydric soils** that can support a prevalence of water-loving plants, know as **hydrophytic vegetation**. Transitional between terrestrial and aquatic systems are wetlands typified by a water table at or near the surface, or the land is covered by shallow water at least part of the year. Types of wetlands are distinguished by water patterns (the frequency and length of flooding) and location in relation to upland areas and water bodies. Wetlands perform many functions including wildlife and fish habitat, storage and conveyance of flood waters, sediment and pollution control, and recreation. Under the **swampbuster program**, landowners may produce crops in these areas, but only if the water patterns, or hydrology, in the wetland area is not altered and any woody vegetation is not removed.

Wetlands Reserve Program (WRP) — A program authorized by **FACT Act of 1990** to provide long-term protection for wetlands. Producers enrolling in the program must agree to implement an approved wetlands restoration and protection plan. In return, participating producers receive payments based on the difference in the value of their land caused by placing an easement on a portion of it. The **FAIR Act of 1996** limits enrollment of the WRP to 975,000 acres. **USDA** is required to divide new enrollments among permanent easements, 30-year easements, and restoration cost-share agreements. Previously, all enrollment had been permanent easements.

Wet-milling — A process in which feed material is steeped in water, with or without sulphur dioxide, to soften the seed kernel in order to help separate the kernel's various components. For example, wet-milling plants can separate a bushel of corn into more than 31 pounds of starch (which in turn can be converted into corn sweeteners or **ethanol**), 15 pounds of animal feed, and nearly 2 pounds of corn oil.

WFP — United Nations **World Food Program**.

WFPO — **Watershed and Flood Prevention Operations**.

WGA — Western Growers Association.

WHIP — **Wildlife Habitat Incentive Program**.

William F. Goodling Child Nutrition Reauthorization Act of 1998 — This law (enacted as P.L. 105-336; October 31, 1998) extended expiring authorizations for **child nutrition and commodity assistance programs**, and the **WIC program** through FY2003. It also made modest revisions to child nutrition and WIC program rules. Most prominently, it significantly expanded the availability of federal subsidies (through the **school lunch program** and the **CACFP**) for snacks served in after-school programs, authorized demonstration projects providing free breakfasts for elementary schoolchildren without regard to family income, and added a number of provisions to child nutrition law to protect the integrity of the **WIC program** and the **CACFP**.

WHO — World Health Organization.

Whole herd buyout program — Another term for the **dairy termination program**.

Wholesale price index — A composite index of prices of commodities sold in primary U.S. markets. "Wholesale" refers to sale in large quantities by producers, not to prices received by wholesalers, jobbers, or distributors. In agriculture, it is the average price received by farmers for their farm commodities at the first point of sale when the commodity leaves the farm.

WIC — **Special Supplemental Nutrition Program for Women, Infants and Children**

WIC Farmers' Market Nutrition Act of 1992 — P.L. 102-314 (July 2, 1992) established a program authorizing projects that provide participants in the Special Supplemental Nutrition Program for Women, Infants, and Children (**WIC**) with food coupons that can be used to purchase fresh, unprocessed foods, such as fruits and vegetables at farmers' markets.

WIC vendors — Grocery and other stores authorized as eligible to accept WIC coupons or vouchers and to receive reimbursement from the state WIC program for purchases made with these food instruments.

WIC vouchers (coupons) — Food instruments commonly issued by WIC agencies to participants that are used in grocery and other authorized food stores to buy certain quantities and types of foods listed on the coupon, which are designated by the state as being authorized for purchase under the WIC program.

Wilderness — An area of federal land, usually 5,000 acres or more, where the impact of man is largely unnoticeable, and which has been designated as wilderness by Congress.

Wildlife Habitat Incentives Program — A program established by the **FAIR Act of 1996** to promote voluntary implementation of on-farm management practices to improve wildlife habitat. Landowner activities under this program implement a state plan. Cost-sharing will be available with funding authorized at \$50 million for fiscal years 1996-2002 from **Conservation Reserve Program** funds.

Wildlife Refuges — Units of the **National Wildlife Refuge System**. They may be designated under general authorities of the **Migratory Bird Treaty Act**, the **Endangered Species Act**, or (rarely) by specific acts of Congress. There are over 500 refuges, with over 89,000,000 acres.

Wildlife Services (WS) Program — An **Animal and Plant Health Inspection Service** program to protect agriculture, natural resources, property, public health, and **endangered species** from unwanted and potentially harmful effects of wildlife species, including predators. WS also works to prevent wildlife/airplane collisions at civilian and military airports. The program was called the **Animal Damage Control Program** until August 1997.

Windbreak — A living barrier that usually includes several rows of trees, and perhaps shrubs, located upwind of a farm, field, feedlot or other area and intended to reduce wind velocities. Windbreaks, also called **shelterbelts**, can reduce **wind erosion**, conserve energy or moisture, control snow accumulations, and provide shelter for livestock or wildlife.

Wind erosion — The detachment and transportation of soil by wind. Wind erosion is a cropland management concern in the Plains states.

Wind erosion equation — An equation used to design wind erosion control systems, which considers soil erodibility, soil roughness, climate, the unsheltered distance across a field, and the vegetative cover on the ground.

Wool Act of 1954 — See **National Wool Act of 1954**.

Wool and mohair commodity programs — Income support was provided to producers of wool and mohair under authority of the **National Wool Act of 1954**, as amended, through 1995. Phase down and termination of the programs was mandated in the omnibus budget reconciliation act enacted November 1, 1993 (P.L. 103-130). Income support was achieved through **incentive payments** that provided higher benefits to farmers who had more production and/or obtained high market prices.

WORC, WORC petition — The acronym stands for the Western Organization of Resource Councils, a private advocacy organization representing some western ranchers who want **USDA** to play a more prominent regulatory role in live cattle markets. In 1996, WORC submitted a controversial petition calling on the Department to initiate rulemaking to limit most forward contracting and cattle feeding by meat packers. The Department published the petition for public comment in January 1997 but, as of early 1999, had not decided on whether to issue such a rule, which is opposed by packers and many cattlemen themselves.

Work/training programs, food stamp — Work/training programs have two meanings in the **food stamp** program: (1) most able-bodied unemployed or underemployed (less than 30 hours a week) adults not caring for very young children must register for work and, if assigned, participate in work/training programs that can include a wide variety of activities such as supervised job search or job search training, a “workfare” program (where they work off the value of their benefit in public service jobs), work experience program or programs involving on-the-job training, education programs to improve basic skills; and (2) in order to maintain eligibility beyond 3 months, able-bodied adult recipients between age 18 and 50 and without dependents must, if not working at least 20 hours a week, participate in and comply with a much narrower range of work/training activities, including only workfare programs, programs under the **Job Training Partnership Act (JTPA)** or the **Trade Adjustment Assistance Act**, and employment and training programs operated by states and political subdivisions that meet state-set standards. Work/training activities covered by the first (broader) definition are often referred to as food stamp program “employment and training” (“E and T”) programs.

World Agricultural Outlook Board (WAOB)— As part of the Office of the Chief Economist, the WAOB coordinates the commodity forecasting program; monitors global weather and analyzes its impact on agriculture; and coordinates **USDA’s** weather, climate and remote sensing work.

World Bank — A multilateral economic development institution established in 1945 to extend loans and technical assistance for development projects in developing countries. It is formally referred to as the International Bank for Reconstruction and Development.

World Food Program (WFP) — A UN agency that contributes commodities, services, and cash to developing countries to meet emergency food needs or to carry out economic and social development projects using food or local currencies generated from the sale of food aid commodities.

World food security — See **food security**.

World price — The price at which commodities will move in international trade under existing marketing conditions. The concept “world price” lacks precision unless quality, location, and other factors are specified. See **domestic price**.

World price (rice)— As part of the rice **marketing assistance loan** program, **USDA** calculates the world price for each class of milled rice (long grain, medium grain, and short grain) based on the prevailing world market price for each of the classes, modified to reflect U.S. quality and the U.S. cost of exporting milled rice. **USDA** sets this prevailing market price after reviewing milled rice prices in major world markets, and taking into account the effects of supply-demand changes, government-assisted sales, and other relevant price indicators. The steps for calculating and announcing the world prices are prescribed in more detail in federal regulations.

World Trade Organization (WTO) — The international organization established by the **Uruguay Round** of multilateral trade negotiations to oversee implementation of the **General Agreement on Tariffs and Trade** and the agreements arising from the Uruguay Round, including the Uruguay Round Agreement on Agriculture.

WPA — Waterfowl production areas.

WPS — Worker protection standard.

WQIP — **Water Quality Incentives Program**.

WRI — World Resources Institute.

WRP — **Wetlands Reserve Program**.

WTO — **World Trade Organization**.

WWF — World Wildlife Fund.

Yield — The number of bushels (or pounds or hundredweight) that a farmer harvests per acre. Under the **Food Security Act of 1985**, the **farm program** payment yield was the farmer’s average yield for the 1981-1985 crop years, excluding the years when the yields were highest and lowest. Payment yields used to implement **farm programs** have remained frozen at the level fixed in the 1985 **farm bill** ever since.

Yield monitoring — Collecting data on the amount of production at regular intervals combined with **GPS** readings. The resulting yield map is basic to decisions about fertilization, pest control, and other adjustments in a system of **precision farming**.

Zero, 50/85-92 provisions — Refers to the 50/85 and 50/92 **commodity program** provisions for rice and cotton and the 0/85 and 0/92 commodity program provisions for wheat and feed grains that were in effect in various forms from 1986 through 1995. Under these provisions farmers could idle all or part of their **permitted acreage**, putting the land in a conserving use, and receive **deficiency payments** as if up to 92% of the **permitted acreage** had been planted. A minimum planting requirement of 50% of maximum payment acreage applied for rice and cotton. Under the **FAIR Act of 1996**, producers have no planting requirements but must observe appropriate conservation practices if the land remains idle.

Zero tolerance — In food safety policy, a “zero tolerance” standard generally means that if a potentially dangerous substance (whether microbiological, chemical, or other) is present in or on a product, that product will be considered **adulterated** and unfit for human consumption. In the meat and poultry inspection program, “zero tolerance” usually refers to **USDA’s** rule that permits no visible signs of fecal contamination (feces) on meat and poultry carcasses. See **wash versus trim**.

Zoonotic diseases — Diseases that under natural conditions are communicable from animals to humans. Tuberculosis and rabies are examples of zoonotic diseases. **Brucellosis** in livestock becomes undulant fever in humans.