

# AGRICULTURAL OUTLOOK



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**Cover:** Plowing, April 1938. Grant Heilman Photography.

## China & the WTO . . . Major rail merger proposal. . . Global meat trade . . . U.S. farm policy through history

### **China's WTO Accession: Gains for U.S. Ag Exports & Income**

**China's participation** in the World Trade Organization would result in significant gains in U.S. agricultural exports and farm income, based on recently completed analysis by USDA's Economic Research Service. U.S. exports of grains, oilseeds and related products, and cotton would potentially be \$1.6 billion above USDA projected Baseline levels in 2005. Additional gains would result from significantly greater market access for other products, such as poultry, pork, beef, citrus, other fruits, vegetables, tree nuts, and forest and fish products. U.S. net farm income would be \$1.7 billion higher than Baseline projections in 2005.

### **Railroads' Urge to Merge**

**A proposed railroad merger** between Burlington Northern Santa Fe and Canadian National would create North America's largest railroad, stretching 50,000 miles from Nova Scotia to Los Angeles, and from the Gulf of Mexico to British Columbia. The proposed merger, announced in December 1999, is primarily an "end-to-end" combination, which is less likely than a parallel combination to weaken competition. The two firms will seek approval from the U.S. and Canadian governments over the next year, asserting benefits stemming from their ability to replace intercompany interchange of freight cars with more efficient intracompany transfer of cars at interchange points. For agriculture, the implications of the merger include its potential to affect the relative trade advantages of U.S. and Canadian producers.

### **World Meat Trade: The Shape of Things to Come**

**Forces driving the growth** in world meat trade since the mid-1980's are still at work in shaping trade patterns. Since 1985, global meat trade has advanced because of significant reductions in trade barriers, notably the relaxation of barriers by Japan and South Korea, regional trade agreements among the countries of North America (NAFTA) and South America



(MERCOSUR), and the opening of new markets for poultry in Russia and China.

Diversity among trade partners in preferences for particular meat products is also a factor that can enhance trade. U.S. consumers, for example, favor chicken breasts over dark meat, while in China and Mexico, dark meat is more valued. Further relaxation of trade barriers and progress in controlling animal diseases will allow expansion of intra-industry trade—with countries importing and exporting different cuts of meat from the same animal species—and will allow countries to exploit relative cost advantages.

### **Hog Producers Look to Higher Returns**

**U.S. hog producers** are benefiting from the combination of a declining hog inventory that is reducing pork production and raising prices, and a booming economy fueling demand for meat products. Hog prices rallied in second-half 1999, while feed costs remained relatively low, boosting producers' returns. Continuing breeding-herd reductions since late 1998 ensure higher hog prices, lower pork production in 2000, and a rise in producers' returns if feed costs continue low. Retail prices are expected up 4-6 percent in 2000.

### **200 Years of U.S. Farm Policy**

**Since the founding** of the national government, farmers have been supported by a series of markedly different policy approaches. In general, Federal farm policies have been rooted in attempts to ensure opportunities for individuals and families to make a living at farming. In the earliest period, Federal land policy offered the opportunity to become a farmer with minimal investment. Succeeding periods brought new policy approaches intended to help farmers improve their incomes in the face of burgeoning production and fluctuating prices. Current challenges facing policymakers—e.g., continuing structural change, complexities of global trade, and new environmental goals—will require creativity in crafting farm policy for the future.

### **Premium Discounts Boost Crop, Revenue Insurance Coverage**

**Sparked by \$400 million** in premium discounts for "buy-up" coverage as part of emergency assistance legislation, farmers' participation in crop insurance increased in 1999. Total insured acres reached 196 million, up about 8 percent from 1998, and acres insured at buy-up levels—above minimum catastrophic coverage (CAT)—increased by 19 percent. The discounts—applicable to any federally supported crop yield or revenue insurance plan—dropped producers' after-subsidy premium costs for buy-up coverage about 30 percent, on average, across all buy-up levels. Higher levels of buy-up participation are expected to continue in 2000, with Federal agriculture appropriations for FY2000 providing funds for premium discounts.

### **Cutbacks Ahead for Processing Tomato Acreage**

**The record-high** 1999 processing tomato harvest prompted processors to sharply increase domestic stocks of tomato-based products and will likely lead to a cutback in contract tonnage and output in 2000. Early estimates indicate a possible decline of 10-20 percent in planted acreage from a year ago, and early contract prices are about 9 percent below last year's average.

## Briefs

Livestock, Dairy, & Poultry**Hog Producers' Returns Improve**

U.S. hog producers are benefiting from the combination of a declining hog inventory that is reducing pork production and raising pork prices, and a booming economy that is fueling demand for meat products. Hog prices rallied in the last half of 1999, while feed costs remained relatively low, boosting producers' returns.

In 1999, hog prices generally climbed throughout the year from the low levels in December 1998, when prices were about the same as in 1970. Prices averaged \$36 per cwt in fourth-quarter 1999, the quarterly high for the year and \$14 over a year earlier. From December into February 2000, prices remained in the high \$30's and low \$40's, exceeding break-even (returns equal cash costs) for the first time since late 1997.

Producers began reducing breeding herds in late 1998, responding to low returns over that year, and continued reducing through 1999. The reductions ensure lower pork production in 2000 (with seasonal variations), higher hog prices, and a rise in producers' returns if feed costs continue low.

The December *Hogs and Pigs* report confirms the forecast of about 4 percent less pork production in 2000. Farrowing intentions reported for December-February were down 3 percent from a year earlier and the same as reported in September. Intended farrowings for March-May are down 5 percent from March-May 1999. Prospects for higher producers' returns have improved since the survey was taken because hog prices have risen about \$3 per cwt.

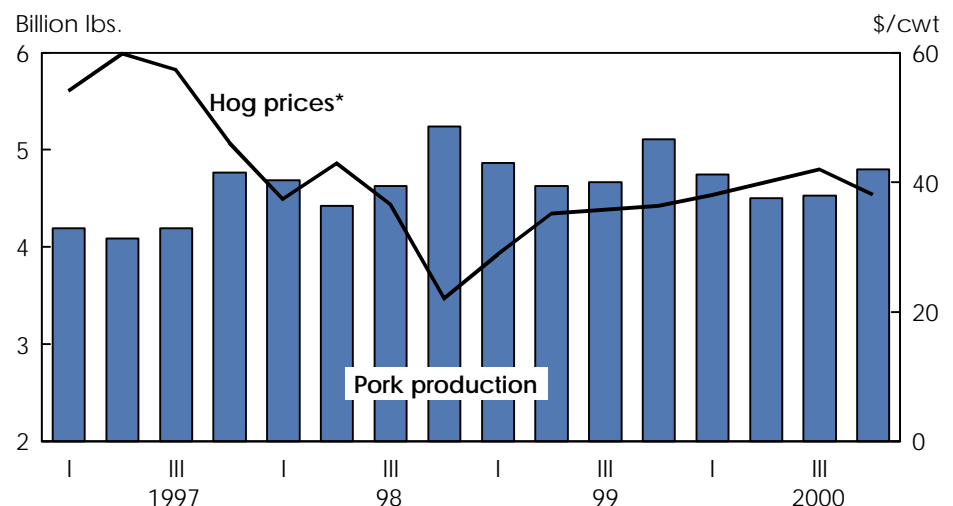
With smaller pig crops, per capita pork consumption in 2000 will likely decline about 2.5 pounds from 1999. Hog prices are expected to continue to strengthen and average near \$40 per cwt, compared with the mid-\$30's in 1999. With continuing low feed costs, producers' returns are above break-even. In the past, 3 to 6 months of favorable returns generally led producers to decide to expand breeding

herds. However, financial stress and structural changes over the past 2 years could alter this pattern. Once producers decide to expand, pork production usually begins to increase about a year later.

Based on the market hog inventory, pig crops, and farrowing intentions reported in December, pork production in 2000 is expected to total about 18.6 billion pounds, compared with a record 19.3 billion in 1999. The projected supply of

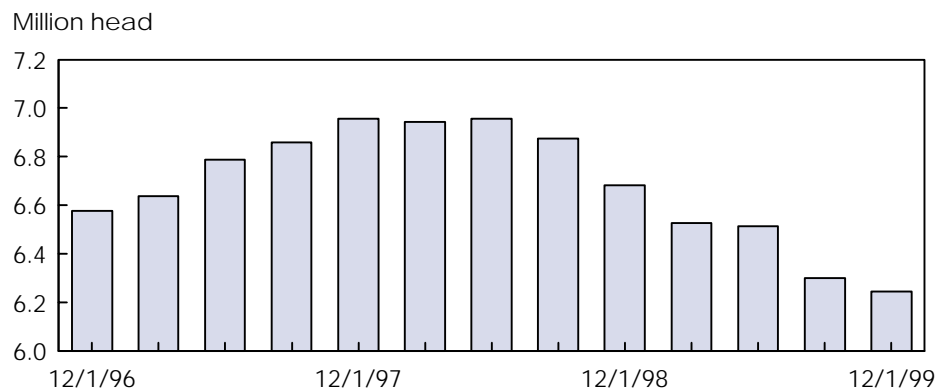
slaughter hogs would suggest a larger decline in production, but heavier dressed weights will help moderate the decline.

Hog prices began the first quarter of 2000 in the high \$30's per cwt after averaging above previous expectations in December when meat product movement was exceptionally strong. However, prices may come under downward pressure later in the quarter, slipping from the low \$40's expected in February, as food-away-from-home demand moderates after the winter holiday season and total meat production continues to rise. Pork belly prices have been extremely high, in part reflecting bacon demand from fast-food restaurants and lower supplies.

**Hog Prices to Strengthen in 2000. . .**

2000 forecast.

\*Barrow and gilt national base converted to liveweight equivalent.

**. . . Following Reductions in the Breeding Herd**

Economic Research Service, USDA

In the second quarter, lower red meat production, moderate poultry output, and seasonal influences will likely push hog prices to around an average \$40 per cwt. With beef production declining sharply in second-half 2000, hog prices are expected to average in the low to mid \$40's in the third quarter, declining seasonally to the high \$30's in the fourth quarter. Given the outlook for a continuing strong economy, vacation travel during the summer months should be strong, fueling demand for meals at fast-food restaurants. Rising demand at these restaurants should support high pork belly prices. Also, higher beef prices will make pork products more attractive in retail stores.

Retail pork prices (as measured by the consumer price index) are expected to increase 4-6 percent in 2000 after a 2-year decline that was partially the result of reduced hog prices. Even with an expected rise in hog prices this year, farm-to-retail price spreads appear to have reached a new plateau near \$1.80 per pound. The largest retail price increases will occur in the first half of the year, mirroring the rise in hog prices. Strong demand from fast-food outlets is expected to push up bacon prices as restaurants bid bacon away from retail food stores.

U.S. pork exports in 1999 totaled 1.17 billion pounds, 5 percent less than in 1998. Most of the export decline can be attributed to reductions in shipments to Russia. Before the ruble crisis of August 1998, Russia was the second-largest U.S. pork export market. Russia's pork imports have resumed, although at very low levels, but subsidized European pork exports have largely replaced commercial U.S. exports. Food aid now comprises a large percentage of U.S. pork shipments to Russia.

Asian markets showed revived interest in U.S. pork in 1999. Exports to Korea about doubled. Taiwan's World Trade Organization membership agreement with the U.S. boosted U.S. pork exports to Taiwan by 112 percent over 1998. Exports to Japan, the largest U.S. pork export market, were 9 percent above a year earlier. Sales to Hong Kong declined 24 percent, due largely to competition from subsidized exports from the European Union.

The U.S. continues to be an attractive import market for Canadian and Danish pork, especially as U.S. pork prices rise. Total U.S. pork imports increased 17 percent in 1999. Pork imports from Canada—the uncontested leading foreign supplier of U.S. pork—increased 26 percent in 1999. The strong U.S. economy, relatively weak Canadian currency, and rapidly restructuring and expanding Canadian pork industry all account for strong U.S. imports of Canadian pork.

The U.S. continued to import record numbers of Canadian hogs in 1999. Through November, 4.1 million Canadian hogs came south, about even with 1998 imports, although the composition differed. In 1998, slaughter hogs comprised two-thirds of live hog imports, and feeder animals the other third, while in 1999, feeders and slaughter hogs were evenly divided. U.S. demand for Canadian feeder pigs grew because of low-priced corn,

attractive processor prices for fed animals, and an increased number of contracts between growers and processors that offer producers a premium over spot prices.

Mexico usually takes over 90 percent of U.S. live hog exports, and imported record numbers in 1998. However, restrictive Mexican trade policies and higher U.S. hog prices reduced the number of U.S. hog exports through most of 1999. Mexico's anti-dumping duty imposed on U.S. hogs in October 1999, effective for 5 years, more than doubled the price of U.S. hogs there. Consequently, the export market for U.S. hogs has declined dramatically since last fall, and exports were down 23 percent in 1999. **AO**

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### Specialty Crops

## **Cutbacks Ahead for Processing Tomato Acreage**

**S**purred by low stocks of tomato products and strong wholesale prices, tomato processors purchased a record-large tomato crop in the fall of 1999. The 12.8-million-ton crop exceeds the previous record set in 1994 by 11 percent. With excellent weather (warm and dry) in California—which accounts for 95 percent of processing tomato production—the quality of the crop was high and the harvest season was long. An unusually large volume of tomatoes was harvested as late as October.

The record-setting harvest helped processors to replenish stocks of tomato-based products—estimated at 9.1 million tons in December 1999, 37 percent above a year earlier. However, despite strong domestic and export demand for processed tomato products, the sharp increase in domestic stocks, combined with increased stocks in other countries, will likely lead to a cutback in contract tonnage in 2000. Since nearly all tomatoes for processing are grown under contract, the result will be a

reduction in acreage of processing tomatoes this spring.

Tomatoes are second only to potatoes in U.S. vegetable consumption. During the past 20 years, U.S. annual per capita use of tomatoes and tomato products has increased by nearly 30 percent, reaching a total fresh-weight equivalent of 93 pounds per person in 1998. Processed tomato products, including items such as sauces, ketchup, pastes, salsa, and juice, accounted for 81 percent of that total.

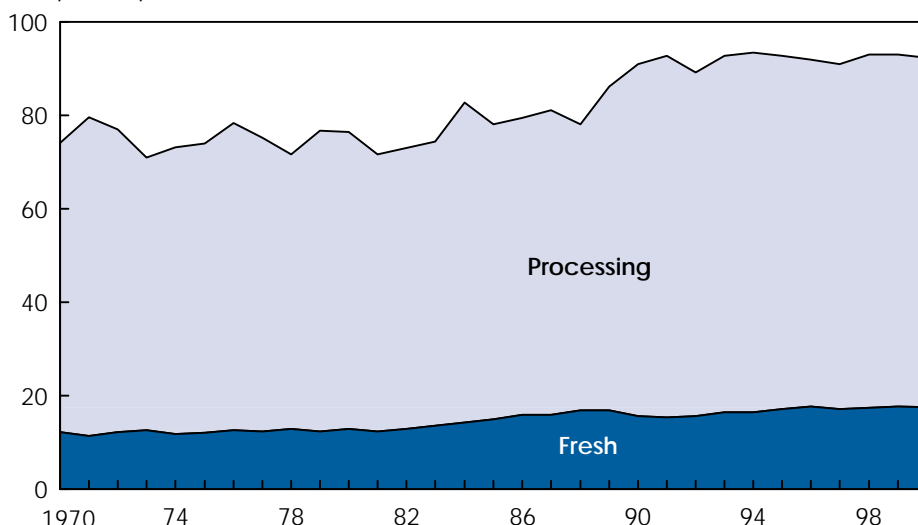
Domestic per capita use of processed tomato products was substantially higher in the 1990's, averaging 75.5 pounds per capita, up 19 percent from an annual average 63.5 pounds in the 1980's. The increase is likely the result of continued expansion in food-service demand (food purchased in restaurants and fast-food establishments), especially for Italian- and Mexican-style dishes. Some of the increase may also be due to rising public awareness of the health benefits of



## Briefs

## U.S. Per Capita Tomato Use Surged Before Heading into the 1990's

Lbs. per capita



Farm-weight equivalent. 1999 preliminary; 2000 projected.

Economic Research Service, USDA

processed tomato products in the diet. Several medical studies in the 1990's linked diets rich in tomatoes and tomato products to reduced risk of various cancers and heart disease.

While domestic per capita consumption of processed tomato products surged heading into the 1990's, it leveled off as the decade progressed. Per capita use averaged just under 75 pounds in 1995-99, compared with an average 76 pounds in 1990-94. Total domestic use of processed tomato products decreased from 10.2 million tons in 1998 to 9.9 in 1999, but is expected to rise to 10.3 million tons in 2000. However, with strong export potential in the coming decade, slow growth (or even a slight decline) in domestic demand does not necessarily translate into no growth in long-term domestic production.

The U.S. has been the world's largest producer of processed tomato products for several decades, but only recently have exports become an increasingly important outlet for U.S. producers. Prior to 1989, exports of processed tomato products rarely accounted for more than 1 to 2 percent of total processed tomato supply (on a raw-equivalent basis). Since then, however, the value of U.S. exports of processed tomato products has nearly quadrupled—from \$60.1 million in 1989

to \$237 million in 1998—and the export share has steadily risen to 12 percent of total supply.

Although markets for Western-style cuisine served by American chain restaurants have already matured in Europe and the U.S., other markets—especially Asia and South America—continue to expand. The U.S. should remain well situated to continue increasing exports of processed tomato products.

### Risk Management

## **Crop & Revenue Insurance: Premium Discounts Attractive to Producers**

Sparked by \$400 million in premium discounts, farmers' participation in crop insurance, particularly at "buy-up" coverage levels, picked up in 1999. Total insured acres increased about 8 percent from the 1998 level, reaching 196 million, and acres insured at buy-up levels—where the premium discounts applied—increased by 19 percent.

The new premium discounts—funded under the emergency assistance package in the 1999 agriculture appropriations legislation (FY1999 Omnibus Consolidated

Despite the long-term expansion potential for the processing tomato industry, the currently large domestic and international inventories of processed tomato products point to reduced output in 2000. With an expected cutback in processors' output, contract prices (between growers and processors) for the 2000 crop are likely to be significantly lower and contract acreage will fall. Some early estimates indicate a possible decline of 10-20 percent in planted acreage from a year ago, and early contract prices are about 9 percent below last year's average. Combined with average acreage abandonment and yields, this would put 2000 production of tomatoes for processing between 9.6 and 10.8 million tons.

Production at the upper end of this range would be unlikely to reduce processors' stocks significantly, because processors often buy their growers' quality production beyond the target tonnage. Large output, along with persistent large stocks, could lead to another acreage cut in 2001. However, with production at the lower end of the range, and with continued strong domestic and export demand, processors could reduce inventories to more comfortable levels and eliminate, or at least limit, the need for an acreage cutback again next year. **AO**

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and Emergency Supplemental Appropriations Act)—supplemented existing crop insurance premium subsidies. The discounts, along with increases in the maximum allowable yield or revenue guarantee—from 75 percent of expected yield or revenue to 85 percent for some crops in some areas—were intended to address concerns about the adequacy of crop insurance coverage in helping farmers protect against yield and revenue risk.

Coverage and participation in the Federal crop insurance program have been shift-

ing in recent years. A major reform enacted in 1994 increased overall insurance participation, primarily by offering a minimum catastrophic coverage (CAT) to producers at low cost—a fixed processing fee per crop instead of a risk- or actuarially based premium—and by requiring that producers obtain crop insurance in order to receive other farm program benefits. As a result, total insured acres increased greatly in 1995, with more than half of covered acreage insured at the CAT level.

After 1995, however, insured acres declined, dropping from 221 million in 1995 to 182 million in 1998. Producers choosing to drop CAT coverage accounted for the decline, particularly after mandatory crop insurance linkages with other farm programs were eliminated in 1996. Producers were then given the choice of obtaining crop insurance or signing a waiver of eligibility for disaster benefits. Between 1995 and 1998, CAT-insured acres dropped by about 45 percent.

A common complaint about CAT coverage is that, while low in cost, it provides little protection. During 1995-98, CAT coverage at 50 percent of the producer's expected yield and 60 percent of expected price (50/60 coverage) cost \$50 per crop (the processing fee). In 1999 and subsequent years, indemnification was reduced to 55 percent of expected price and the processing fee rose to \$60 per crop. Thus in 1999, the maximum CAT indemnity that would be paid out in the event of total crop failure was 28 percent of a producer's expected revenue.

While CAT coverage declined, acres insured at buy-up levels (any coverage level above CAT) grew modestly between 1995 and 1998. Many producers contended that buy-up coverage, particularly at top levels, was too costly. Because the premium subsidies are fixed amounts, the subsidy share of total premium declines as coverage level increases, except for a peak at the 65-percent yield or revenue guarantee level where the fixed amount jumps (AO August 1999). Since premium subsidies for revenue insurance are based strictly on the yield portion of an insurance contract, revenue insurance subsidies are generally a lower proportion of total premiums than their yield-based insurance counterparts.

### **Buy-up Acres Have Increased Since 1995, While Acres Insured at CAT Level Have Declined**

	1995	1996	1997	1998	1999
<i>Million acres</i>					
Total	220.6	205.0	181.9	181.7	196.1
Insurance types:					
CAT*	115.3	87.8	64.4	61.5	52.9
All buy-up	105.4	117.2	117.5	120.2	143.2
Revenue only	NA	11.7	25.4	27.1	52.8

NA = Not available.

\* Minimum catastrophic coverage, i.e., 50 percent of expected yield and 55 percent of indemnity price.

Economic Research Service, USDA

Insurance premium discounts included in the 1999 emergency assistance package made buy-up insurance coverage levels more affordable for crops harvested in 1999. The discounts—applicable to any federally supported crop yield or revenue insurance plan except CAT—dropped producers' after-subsidy premium costs for buy-up coverage about 30 percent, on average, across all buy-up levels.

Reduced costs for buy-up insurance led to widespread increases in participation in 1999. Buy-up acreage—including crop yield and revenue plans—increased in nearly every state, and climbed nationwide from 120 million acres in 1998, to 143 million in 1999. Among states with the largest amount of buy-up acreage in 1998, gains in 1999 were particularly strong in Illinois (up 28 percent), Texas (up 22 percent), and North Dakota (up 16 percent), increasing the buy-up share of insured acreage in each of the three states to at least 70 percent. The Mississippi River Valley and Delta region, which had little buy-up business in 1998, showed strong increases (at least 25 percent) in buy-up coverage, but still less than half of insured acreage in this region was covered at buy-up levels in 1999.

Buy-up acreage increased in 1999 for each of the crops with the largest insured acreage in 1998—corn, soybeans, wheat, and cotton. The rise in buy-up acreage was especially strong for cotton (a 35-percent increase), though cotton, compared with other major crops, continues to have the smallest proportion of insured acreage covered at buy-up levels.

In addition to increasing buy-up acreage overall, producers moved to higher guarantee levels within the buy-up category in

1999. While 65 percent of expected yield continues to be the most popular guarantee level, the share of acreage insured at this level declined as the shares of acreage insured at the 70- and 75-percent levels increased, likely indicating that producers substituted higher levels of coverage for lower.

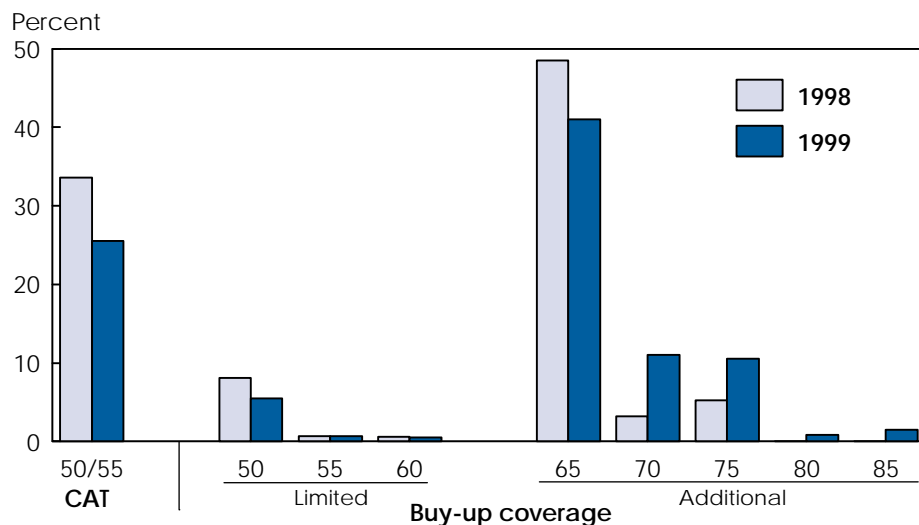
Increasing coverage levels is expensive, whether the cost is borne by producers or by the government. As coverage level increases, the likelihood that the insured will collect an indemnity increases, so each additional increment in coverage costs more than the previous increment. This increasing cost means, for example, that the total premium increases 78 percent going from 65 percent coverage to 75 percent, compared with an 81-percent premium increase going from 75 percent coverage to 85 percent. As a result of the rapidly ascending rate schedule, the \$400 million in premium discounts, which represents roughly 30 percent of total premium subsidies and discounts applied to buy-up coverage, leads to somewhat modest increases in coverage levels.

Premium discounts, along with concerns about declining commodity prices, have led many purchasers of buy-up coverage to choose revenue insurance products. Although revenue insurance—particularly the most popular product, Crop Revenue Coverage—is often more expensive than yield-only insurance, evidence suggests the newly available premium discounts may have brought the cost of revenue coverage within reach of more producers.

In 1999, the availability of revenue products increased—more crops, more counties—by about 30 percent, while the number of acres insured under revenue plans

## Briefs

## Share of Insured Acreage with Higher Crop and Revenue Coverage Rose in 1999

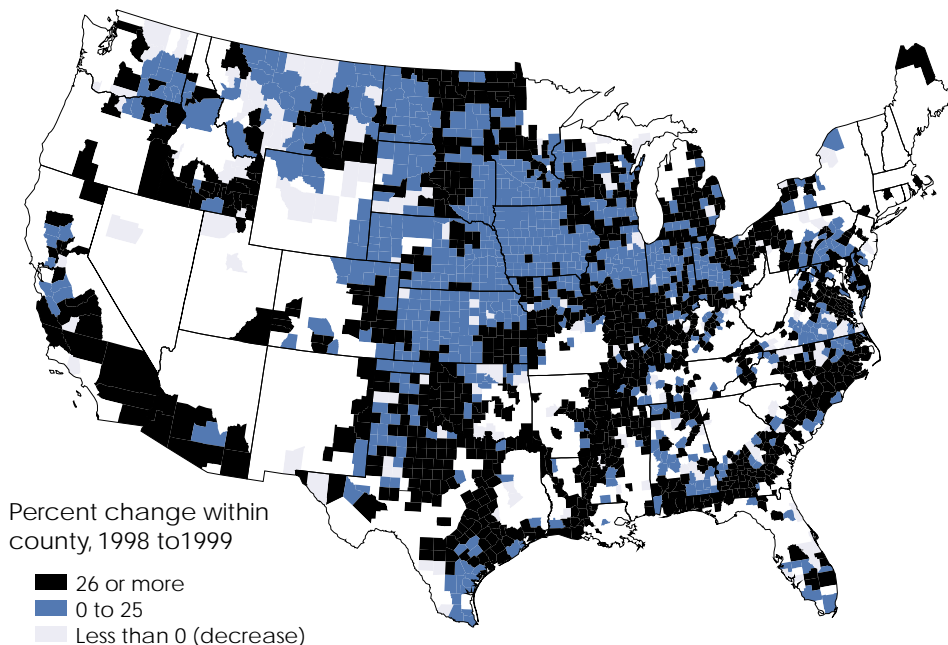


CAT = Minimum catastrophic coverage, i.e., 50 percent of expected yield and 55 percent of indemnity price. Purchaser of buy-up coverage selects a percent of yield (and percent of indemnity price up to 100 percent) or a percent of revenue. Maximum, fixed subsidy applies at 65-percent coverage level and above.

Based on data from USDA's Risk Management Agency.

Economic Research Service, USDA

## Insured Acreage with Coverage of 65 Percent or Higher Showed Upswing In Many Areas in 1999



Counties with at least 500 acres insured at or above the 65-percent coverage level in 1998.

Includes all yield and revenue products for all crops.

Based on data from USDA's Risk Management Agency.

Economic Research Service, USDA

grew by more than 90 percent from 1998. In many counties in the Corn Belt, revenue plans now account for more than half of buy-up insured acres.

How much did subsidies and discounts raise participation? If producers are generally unresponsive to premium changes, increasing government payouts for premiums could raise program costs dramatically while having little effect on overall participation. Last year's crop insurance experience, when large premium discounts were made available and many producers added or upgraded coverage, perhaps gives a good idea of how producers react to additional support for purchasing insurance protection.

Higher levels of buy-up participation are expected to continue in 2000. Although the 1999 legislation funded emergency assistance premium discounts for only 1 year, appropriations for fiscal year 2000 (the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2000) included \$400 million in premium discounts for 2000. Estimates for 2000 point to a 20-25 percent producer premium discount for buy-up coverage (in addition to existing subsidies), depending on expected crop prices and the number of producers choosing to insure or to increase their protection.

Additional premium discounts for buy-up insurance coverage, similar to those included in the emergency assistance legislation for 1999 and 2000 crops, could become a permanent part of producer premium subsidies. In September 1999, the House of Representatives passed the Agricultural Risk Protection Act of 1999 (HR 2559), which would boost buy-up premium subsidies, and would reform other Federal crop insurance program provisions. Over the past several months, the U.S. Senate Committee on Agriculture, Nutrition and Forestry has seen bills introduced that would also boost insurance subsidies, as well as a bill that would provide direct payments to producers undertaking a variety of risk management activities. **AO**

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## Commodity Spotlight



Mike Kurtzig

# World Meat Trade Shaped by Regional Preferences & Reduced Barriers

**W**orld trade in meats has grown rapidly since the mid-1980's. The trade primarily involves shipping cuts of meats and edible offal rather than carcasses or live animals. Emerging patterns of trade are due only partially to relative advantages in countries' production costs. The presence or absence of trade barriers has also influenced trade patterns, as have disparities in preferences among trading partners for particular meat cuts.

In the last 15 years, U.S. exports of the three major meats—beef, pork, and poultry meat—have grown faster than other countries' meat exports, and the U.S. has evolved from primarily a meat importer to a large exporter. U.S. exports totaled \$6.5 billion in calendar 1998, compared with \$2.8 billion in imports. On a value basis, the U.S. has become a net exporter (exports surpassing imports) of beef, pork, and poultry, with the export value of each exceeding \$1 billion. Nevertheless, the

U.S. remains the world's largest beef importer and a major pork importer.

### *The Impact of Trade Barriers*

Market supply and demand factors within nations determine trade potential, but tariff and nontariff barriers can shift market supply and demand, preventing or inhibiting trade. While many serious barriers remain, significant reductions in barriers since 1985 have advanced the growth of world meat trade. Japan's beef imports surged following the dismantling of its quota system for beef imports (negotiated in the 1988 Beef-Citrus Agreements), and reductions in tariffs since 1995 (negotiated in the Uruguay Round). South Korea opened its beef market with an import quota in 1988, and has raised the quota level several times. Large increases in meat trade in North America have been associated with the U.S.-Canada and NAFTA agreements, and expanded meat trade within South America has been associated with the MERCOSUR agreement.

In the 1990's, major new markets emerged in Russia, especially for poultry, after the breakup of the Soviet Union and ensuing policy changes. China and Hong

Kong became fast-growing markets for poultry as China allowed imports to increase. Proposed terms of World Trade Organization entry negotiated with China and Taiwan, as well as the end of Korea's pork and poultry meat quotas in 1997 and of its beef quota in 2001, mark the fall of barriers that will affect future trade flows.

Sanitary rules can be a key nontariff barrier also affecting meat trade. Disease-free countries are very cautious about imports of fresh, chilled, and frozen meats, which can bring pathogens into a country. In general, these countries ban imports from areas where targeted diseases occur. Once various national boards and/or international panels such as the World Animal Health Organization recognize a country as free of a disease, it can export to countries that monitor imports in order to control the disease.

The U.S. and other countries have eradicated certain infectious diseases among meat animals, at considerable cost. The disease-free status of the U.S.—free of major animal diseases such as foot-and-mouth, hog cholera, and Newcastle—has benefited its meat exports. Meat imports into the U.S., on the other hand, have been constrained by disease concerns. For example, U.S. imports of poultry meat are small, in part because potential suppliers like Mexico and China are not recognized as free of Newcastle disease. In recent years, Uruguay, Argentina, and the Mexican state of Sonora have achieved U.S. recognition as free of certain diseases. These regions have growing prospects of shipping approved meats to the U.S.

### *Lower Costs Boost Exports*

Meat exporting areas tend to be located near large feed supplies to minimize costs of transporting bulky feeds. Feed production requires land, and countries with large areas of land suited for feed production dominate meat exports. Areas that produce abundant grain, such as the U.S., Canada, Brazil, and the European Union (EU), are major exporters of pork and/or poultry meat. The U.S. and Canada also feed grains and meal to cattle, for further weight gain and improved quality, and export beef. Countries with large pasture area produce and export grass-fed beef (Australia, Argentina, and New Zealand).

This article summarizes a study by USDA's Economic Research Service of world meat trade patterns, the surge in U.S. meat exports, and future trade issues.



## Commodity Spotlight

Meat animal production in a number of other countries depends on imported grains, meals, and roughage. Easing of meat import barriers in some of these countries in the last 15 years has expanded opportunities for exporters. Partially because it can be more efficient to ship meat than feeds, countries like Japan and Korea are importing a rising share of their meat consumption as import barriers fall.

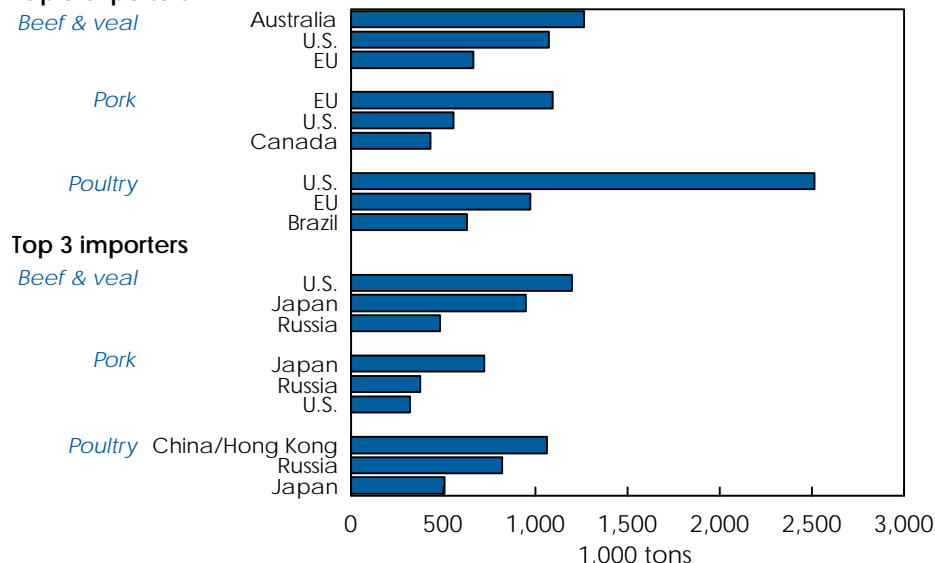
Supplying meat involves not only animal production, but also slaughter, processing, and distribution. Costs of these operations vary significantly across countries, and can affect relative trade competitiveness. For example, some studies have concluded that in the recent past the costs of processing cattle in Australia or hogs in Canada were higher than in the U.S. due to lower labor costs in large, modern U.S. plants. Lower labor costs appear to give Brazil, China, and Thailand an advantage over the U.S. and other countries in deboning and processing broiler meat.

Economies of size or scale can lower the cost of meat processing and marketing and thereby affect meat trade. As the size of the processing plant increases, meat processing costs drop, and as meat firms are consolidated into larger businesses the costs of marketing, research and development, and management can be spread over larger production complexes and the per-unit cost lowered. Economies of size require sufficiently large markets to absorb the processed meat. Denmark's pork industry, relatively large compared with its population, depends on export markets in the EU, Japan, the U.S., and elsewhere. Though Australia's population is relatively small, beef plants can achieve economies of size with sufficient export outlets.

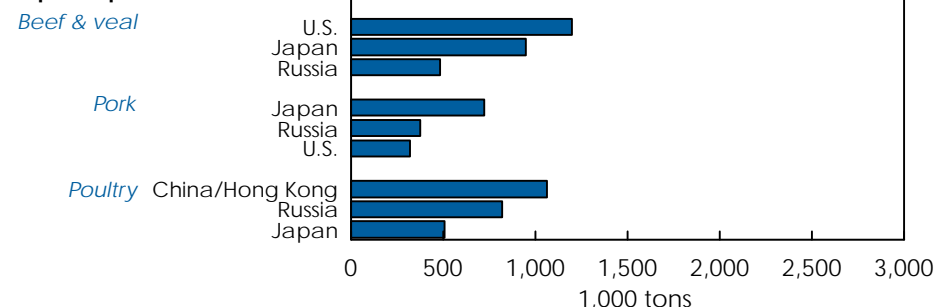
Supplying meat cuts to foreign markets involves particular transportation requirements. Until the 1980's, transport by ship was limited largely to frozen meat. However, advances in containerized meat shipment over the last 15 years have allowed chilled, unfrozen beef and pork to cross the seas by ship from North America and Oceania to Japan, and still have sufficient shelf life to compete well upon arrival (AO January/February 1999). In many markets, fresh or chilled meat is preferred over frozen meat for some uses, and chilled meat exports are expected to grow.

### U.S. Is a World Leader in Meat Trade

#### Top 3 exporters



#### Top 3 importers



1998 data. These exports account for 66 percent of meat exports, and the imports for 58 percent of meat imports, from USDA's Production, Supply, and Distribution database. Excludes intra-EU-15 trade. Some China/Hong Kong data are from customs statistics of China.

Economic Research Service, USDA

### Differing Preferences Underlie Trade Gains

Some meat trade flows are strongly influenced by factors other than costs of supplying a market (animal purchase, processing, and transport). U.S. exports of poultry meat and offal (hearts, livers, feet, etc.) are an example. Their growth exceeded that of beef and pork exports since the mid-1980's. Wide differences in U.S. and foreign consumer preferences for broiler cuts and offal are a likely reason.

U.S. consumers favor chicken breasts, paying higher prices than for dark meat—legs, thighs, and wings. There is little U.S. demand for chicken feet. Much of the rest of the world has opposite preferences: dark meat is preferred, and prices for chicken legs are typically higher than for breasts. For example, although broiler production costs are higher in Japan than in the U.S., partly because Japan's feed must be imported, breasts from domestic broilers are priced lower in Japan than in the U.S. In Japan, breasts are a low-valued byproduct of broilers grown for legs and other dark meat. In the U.S., on the other hand, legs, dark meat, and offal are valued lower than breasts.

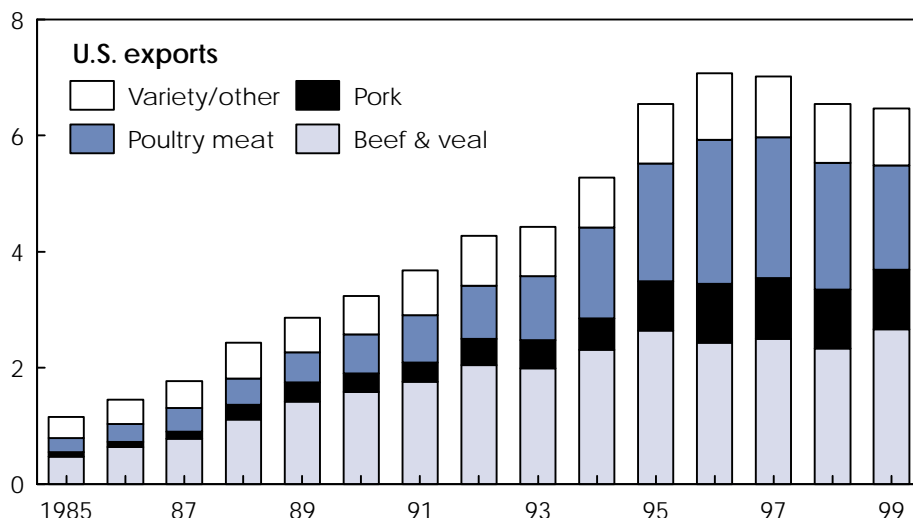
This difference in preferences provides a marketing opportunity for U.S. poultry meat exports. U.S. firms export wings, feet, other dark meat, and offal to China and Hong Kong; legs to Japan; and dark meat and offal to Mexico. These export markets pay more for such cuts than U.S. consumers. In addition, low U.S. prices of chicken-leg quarters make them affordable to Russian consumers, who also generally prefer dark meat. U.S. exports of breast meat are small relative to dark meat, except shipments to Canada where preferences are similar to those in the U.S.

Differences in poultry preference among countries can lead to complementary trade flows. Japan exports modest quantities of chicken feet to Hong Kong, and China ships boneless legs and processed chicken to Japan. Newcastle disease in chicken flocks outside the U.S. currently precludes some potential import flows into the U.S., but as disease issues are overcome, bilateral trade in parts may occur on a wider scale, particularly between the U.S. and Mexico. Mexican tastes for dark broiler meat and offal complement U.S. tastes for chicken breasts.

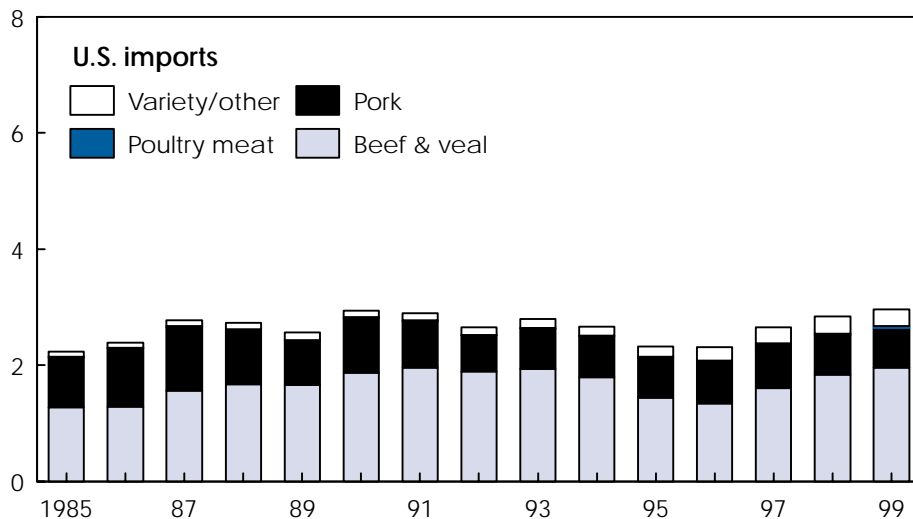
## Commodity Spotlight

## The U.S. Has Become a Net Exporter of Meat

\$ billion



\$ billion



Economic Research Service, USDA

Trade data on international beef and pork markets often refer only to “cuts” in general rather than identifying the specific cuts crossing borders. This obscures global diversity in preferences for red meat cuts. However, in some markets, the market value of a slaughtered hog or steer is clearly determined much differently than in the U.S. The market value of U.S. hogs is concentrated in the muscle meats, while internal organs (e.g., heart, liver, stomach, intestines) typically account for only 5 percent of the slaughtered animal’s value. In Taiwan, for example, the valuation is different. Internal organs often provide

15-20 percent of the value of a slaughtered hog. The high price of hearts, tripe, and other offal in foreign markets encourages annual U.S. exports of over \$500 million of beef and pork variety meats.

Quality preferences for certain products also vary. North America and East Asia prefer grain-fed, marbled beef, while Oceania and South America produce and consume leaner grass-fed beef. Pork quality factors in Japan—where tolerance is low for pale or soft meat—differ from those in North America. These differences lead to significant trade flows, such as the

export of grass-fed beef from Oceania to North America and Japan for grinding into hamburger mixes. Denmark markets pork from heavier-weight pigs with more fat marbling to Germany, and ships pork from smaller, leaner pigs to the United Kingdom, where bacon with less fat and more meat is preferred.

Firms with multinational marketing strategies base their trade on international differences in demand. They send carcass parts and offal to markets where they can expect the highest return. Some firms also have a multinational production strategy, with production bases in two or more countries. This allows them to reduce risks such as weather, disease, and exchange rate movements, and to take advantage of different resource bases. The largest meat processing firms are U.S.-based and have production facilities in other countries as well, including Canada, Australia, Mexico, and China.

The existence of markets linked by firms with international marketing strategies, but differing in ability to produce meat and in their preferences, means that intra-industry trade, with countries importing and exporting different cuts from the same animal species, is likely to expand. Intra-industry marketing may expand U.S. meat imports and exports in the future. If future reductions in trade barriers and advances in animal disease control occur, meat trade flows will increase.

An increase in imports would lower U.S. prices for some products, benefiting consumers. The U.S. industry, with its ability to supply large amounts of most kinds of meat, is likely to find new international markets where U.S. meat has a cost advantage and/or where product preferences complement those of U.S. consumers. U.S. advantages—disease-free status, abundant forage and domestically grown feed, as well as economies of size—position the U.S. industry to profit from greater freedom in global meat trade. Expanded U.S. meat exports in the future will benefit meat processing firms and farms producing meat animals. **AO**

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## Commodity Spotlight

### Major U.S. Partners in Meat Trade

Japan is the leading market for U.S. meat exports, taking \$2.4 billion, or over 36 percent of U.S. meat exports in 1998. Beef to Japan constituted almost 20 percent of the total value of U.S. meat exports to all destinations. Scarcity of pasture makes calf production costly in Japan. Feed production is limited, and Japan must import most feeds, usually from the U.S. Labor costs in Japan's processing plants are high relative to the U.S. and farms are often too small to achieve economies of size. Thus, meat production costs in Japan are higher than in the U.S. and some other exporting countries, so Japan increasingly imports its meats. In 1998, Japan was second only to the U.S. in beef imports, was the world leader in pork imports (excluding intra-EU trade), and was the third-largest poultry meat importer, following Russia and China/Hong Kong.

Japan imports red meats only from countries free of foot-and-mouth disease, and the U.S. is the largest supplier. Consumer preference for grain-fed beef supports the U.S. market share in Japan—much of Australia and New Zealand's beef is grass-fed. Improved trade data and further research will determine how Japan differs from the U.S. in the type of red meat cuts preferred, but preference differences in variety and poultry meats are apparent. Japan imports U.S.-supplied beef tongues, livers, other organs, and frozen chicken legs, all valued more highly in Japan than in the U.S., and amounting to almost \$500 million in U.S. exports.

Mexico, taking more than \$900 million of U.S. meat exports in 1998, is the second-largest U.S. market. Like Japan, Mexico purchases all the major meats—beef, pork, poultry, and variety meats. U.S. grain-fed beef sells well there, as most of Mexico's domestic production is grass-fed. Mexican tastes for dark broiler meat and variety meats complement U.S. tastes. Mexico's proximity to the U.S. and reductions in trade barriers under NAFTA have stimulated growth of U.S. exports.

Russia emerged as a major market for U.S. poultry meat, variety meat, and pork after the breakup of the Soviet Union and its centrally planned economy. Russian producers have had difficulty organizing markets to produce meat profitably, and high production costs encourage competition from imported meats. Production has fallen and meat imports have climbed, even though Russian consumers became poorer and their meat consumption fell (AO June/July 1999). In 1998, Russia was the world's third-largest beef importer, second-largest pork importer, and leading importer of poultry meat.

Russian imports of U.S. meats exceeded \$700 million in 1998, after peaking in 1996 at \$1.1 billion. Consumers found the prices of U.S. dark broiler and variety meat attractive. The ruble's high value was a key factor in encouraging U.S. meat imports, which declined after the currency depreciation in fall 1998.

Canada was the fourth-largest U.S. export market for meats in 1998, with sales at almost \$700 million. Beef, poultry meat, and pork are the major meat exports to Canada. Canada's supply management of broilers ensures relatively high domestic prices. U.S. exports of poultry meat, aided by geographic proximity, are priced lower than Canadian poultry parts. Canada does have tariff-rate quotas, designed to partially protect the Canadian poultry industry.

The situation is different for beef and pork. Canada exported \$1.2 billion of the red meats to the U.S. in 1998, much more than it imported. The end of Canada's subsidies to grain transportation increased domestic supplies and reduced feed costs in western Canada, making it more attractive to feed the grain locally. The nearby, open U.S. border has encouraged North American firms to take a regional marketing perspective, and their investments in Canadian slaughter and processing plants are bringing down their total costs of producing meat.

The fifth-largest market for U.S. meats (at \$550 million) is Hong Kong, together with China. Because Hong Kong re-exports large quantities to the rest of China, while also importing meat from China, the markets are tightly linked, and treating them as one market while reviewing trade is convenient. Both markets absorb U.S. poultry meat and offal, and also pork and beef variety meats and muscle cuts. With a large population, rising income, and tastes that complement U.S. preferences, China is a key future market.

Leading sources of U.S. meat imports, besides Canada, are Oceania and the EU. Australia and New Zealand, both with large grazing areas, in 1998 shipped nearly \$800 million in frozen, grass-fed beef to the U.S. for grinding into hamburger mixes, and about \$170 million of lamb, a regional specialty. Significant investment by U.S. and Asian firms in Oceania's cattle sector help tie that production to U.S., Japanese, and Korean markets. Growth in Asian demand for grain-fed beef imports in the last 15 years led to diversion of some grass-fed cattle destined for the U.S. market to become grain-fed beef for the Asian market. U.S. imports from the EU, mainly frozen and processed pork from Denmark, have stabilized in recent years.

#### U.S. exports, 1998

Country	Meat	Value	Share of total
		\$ million	U.S. meat exports Percent
Japan	Beef & veal	1,302	20
Japan	Pork	596	9
Russia	Poultry meat	535	8
China/Hong Kong	Poultry meat	408	6
Mexico	Beef & veal	398	6
Japan	Variety meats	310	5
Canada	Beef & veal	285	4
Mexico	Poultry meat	231	4
Canada	Poultry meat	231	4
South Korea	Beef & veal	142	2
Total, top 10 shares		4,439	68

Totals may not add due to rounding.  
Economic Research Service, USDA

#### U.S. imports, 1998

Country	Meat	Value	Share of total
		\$ million	U.S. meat imports Percent
Canada	Beef & veal	736	26
Australia	Beef & veal	468	16
Canada	Pork	416	15
New Zealand	Beef & veal	329	12
EU	Pork	230	8
Argentina	Beef & veal	118	4
Brazil	Beef & veal	102	4
Australia	Lamb/mutton	97	3
New Zealand	Lamb/mutton	74	3
Canada	Variety meats	50	2
Total, top 10 shares		2,621	92

## World Agriculture & Trade



Frederick Crook

# China's WTO Accession Would Boost U.S. Ag Exports & Farm Income

**A**ccession of China to the World Trade Organization (WTO) would potentially add \$1.6 billion by 2005 to the annual tally of global U.S. exports of grains, oilseeds and oilseed products, and cotton. Much of the \$1.6 billion represents direct U.S. sales to China; these commodities would enjoy significantly greater access to the immense Chinese market. This figure does not take into account other U.S. commodities such as fruit and vegetables, animal products, and tree nuts, which would also enjoy increased access once Chinese duty reductions are implemented. U.S. farm income stands to gain considerably from the rise in exports.

Over the past 20 years, U.S. agricultural exports to China have grown from negligible levels to \$1.1 billion in fiscal year 1999. Estimation of additional exports under China's pending accession to the WTO are based on preliminary analysis by USDA's Economic Research Service (ERS). The analysis is in turn based on China's WTO commitments under the comprehensive bilateral trade agreement with the U.S.

The U.S.-China agreement, signed in Beijing on November 15, 1999, followed 13 years of negotiations. The agreement signaled China's desire and commitment to participate in the global trade community, and was a major step toward securing China's entry into the World Trade Organization (WTO).

After China negotiates bilateral agreements with several other WTO Members, all Working Party Members, including the U.S., must reach consensus on the draft protocol package—the complete package of commitments that will be the basis for WTO Members' decision on whether to admit China to the WTO. The package is then sent forward to the WTO General Council for final approval. The protocol package reflects the best market access commitments from each bilateral agreement.

The projections and discussion in this article draw on USDA agricultural Baseline projections released at USDA's 2000 Agricultural Outlook Forum in February. The longrun Baseline projections, through 2009, assume no shocks (and no WTO accession by China) and are based on specific assumptions regarding macroeconomic conditions, policy, weather, and international developments.

## Accession to Reduce Ag Trade Barriers

Under terms of the U.S.-China bilateral agreement, which will be incorporated into the final WTO accession protocol, China has committed to eliminate nontariff barriers on agricultural imports upon its accession to the WTO and to implement a series of tariff cuts between 2000 and 2004. In addition, China committed to establish tariff-rate-quotas (TRQ's) for wheat, rice, corn, cotton, and soybean oil with gradually increasing quota levels, mostly over the same period.

For goods subject to a TRQ, a specified quantity of imports—i.e., quota—may enter at a low tariff rate, and additional imports are assessed a higher tariff. The negotiated TRQ's are not “minimum purchase” commitments—i.e., they do not require China to actually import at the full TRQ amount. Rather, by cutting tariffs, they provide the opportunity for trade to the extent that domestic demand exceeds supply.

WTO accession is expected to expand China's imports of farm products, particularly for major agricultural commodities which have TRQ's. An important element in China's increased imports will be the growing shares of TRQ imports reserved for private traders.

China's commitments to reduce barriers to agricultural imports include the following:

- A system of TRQ's will expand market opportunities for major agricultural commodities, including corn, wheat, cotton, rice, and soybean oil. The quantities of these commodities allowed in at the low “within-quota” tariff rate will increase annually from 2000 through 2004 (except soybean oil which will be fully liberalized with nothing but a bound duty by 2006).



## World Agriculture & Trade

### China's Accession to WTO Would Boost Its Imports of Major Ag Commodities From Projected Levels

	2005			2000-09 average		
	Baseline	WTO scenario	Change	Baseline	WTO scenario	Change
\$ million						
<b>Value of China's net imports</b>						
Corn	-422	165	587	-426	71	497
Wheat	231	773	543	243	727	484
Rice	-846	-868	-23	-828	-843	-15
Soybeans	1,470	1,081	-389	1,422	1,024	-398
Soymeal	280	526	246	281	501	221
Soyoil	453	776	323	455	803	348
Soy complex	2,202	2,382	180	2,157	2,328	171
Cotton	565	924	359	429	757	328
Sum of above	1,730	3,376	1,646	1,576	3,040	1,464
<b>Value of China's imports</b>						
Corn	121	780	659	127	680	554
Wheat	309	853	544	319	803	485
Rice	175	216	41	173	210	37
Soybeans	1,511	1,116	-394	1,461	1,059	-402
Soymeal	281	527	245	282	502	220
Soyoil	470	797	327	472	824	352
Soy complex	2,262	2,440	178	2,215	2,385	170
Cotton	677	1,206	529	558	1,019	461
Sum of above	3,544	5,495	1,951	3,392	5,098	1,706

Marketing-year trade. Totals may not add due to rounding. Change measured from USDA Baseline projections released February 24, 2000.

Economic Research Service, USDA.

- Significant cuts in tariffs will be completed by January 2004. For agricultural products overall, tariffs will drop from an average of 22 percent to 17.5. For certain agricultural exports deemed important to the U.S. (e.g., animal products, fruits, and dairy products), the average tariff will fall from 31 to 14 percent.
- A growing share of the rising TRQ imports is reserved for nonstate trading entities to encourage private-sector participation in China's trade activities.
- Use of export subsidies for farm products will end, and trade-distorting domestic subsidies will be capped and reduced.
- Sanitary and phytosanitary (SPS) barriers must be based on scientific evidence.

In analyzing the likely changes in China's and in U.S. trade in major agricultural commodities arising from China's accession to the WTO, ERS used the global Country Linked System of models (see box on page 15). ERS measured the estimated trade level under China's accession,

relative to USDA's 2000 Baseline projection—a 10-year projection of international supply, demand, and trade of major agricultural commodities. Since Baseline projections were built on existing patterns of trade and assumed China was not a WTO Member, the difference between the two levels reflects the likely impacts of China's accession to the WTO.

The commodities analyzed for impacts on China's agricultural trade were corn, wheat, rice, cotton, and soybeans and their products, while a broader set of commodities was considered for the U.S. trade and farm income impacts. Although China's imports of poultry, pork, and beef are expected to increase following WTO accession, China's livestock product trade was not analyzed. However, China's domestic feed costs do impact its domestic supply and demand for livestock products.

Some of the key assumptions underlying the analysis include:

- general economic and policy assumptions as in the 2000 USDA Baseline;

- no economic growth impact on China from WTO accession (i.e., maintains 7.4 percent average annual growth as under baseline projections);
- reduction in China's large agricultural commodity stocks in the near term;
- relaxation of China's government policy favoring soybean imports over soy oil or soy meal imports; and
- treatment of China's accession to the WTO as equivalent to implementing the bilateral agreement.

The final level and timing of China's import growth due to WTO accession depends on factors that are difficult to anticipate and gauge. These include how rapidly and how extensively China's government adjusts its domestic agricultural production, pricing and marketing policies, and institutions in response to the more liberalized trade environment.

### China's Ag Imports Should Rise

Between 2000 and 2009, China's average annual net imports of major agricultural commodities (corn, wheat, rice, cotton, soybeans and their products) are expected to increase \$1.5 billion from Baseline levels due to WTO accession. By the midpoint of the projection period (2005), the net gains in import value are expected to be \$1.6 billion, almost double the Baseline level.

**Corn.** China committed to establish a 4.5-million-ton tariff-rate quota for corn in 2000, rising to 7.2 million by 2004. Within-quota imports would be subject to a low duty (1 percent), while over-quota duties would be high—77 percent in 2000 dropping to 65 percent by 2004. Nonstate trade companies with the right to trade would be allocated 25 percent of the quota in 2000, rising gradually to 40 percent in the year 2004.

China's accession to the WTO is projected to result in an average annual increase of \$497 million over the Baseline in its net corn trade between 2000 and 2009. During this period, the Baseline projects China will be a net corn *exporter* of \$426 million on an annual average basis. In sharp contrast, the WTO scenario projects annual average net corn *imports* by China amounting to \$71 million.

China is currently a large corn exporter, and imported an average of less than half a million tons of corn annually over the last 3 years. China's imports are not projected to reach the full TRQ amount by the end of the projection period (2009) because the expected declines in price and production are not likely to be rapid or dramatic. Imports are nonetheless expected to increase steadily because of the TRQ provision that creates effective market access opportunities for nonstate trade companies in corn imports and because of the demand that already exists.

Increased corn imports following WTO accession should put downward pressure on domestic prices and production in China. This downward pressure reinforces China's recent move to align prices more closely with the world market by reducing the floor (or protection) price paid to farmers for government purchases of corn. It is unclear, however, whether this downward price pressure will contribute to additional changes in production, consumption, and stockholding, and this generates substantial uncertainty regarding the pace of the expected longrun upward trend in imports.

The most likely outcome is reduced area planted to corn, reduced production, increased consumption, and higher levels of imports. South China is expected to be the destination for much of these additional imports, given the large demand for livestock feed in that region. North China should continue to procure supplies primarily from local domestic production. However, if production in North China does not drop dramatically in response to the expected lower prices, China may maintain significant levels of exports to neighboring Asian countries. Although such exports could displace U.S. shipments, the U.S. is expected to capture the majority of China's additional trade, and those gains are likely to more than make up for any losses in third-country exports.

**Wheat.** China committed to a tariff-rate quota of 7.3 million tons for wheat in 2000, rising to 9.64 million in 2004. The duty for within-quota imports would be 1 percent, while the over-quota duty would be 77 percent in 2000, dropping to 65 percent by 2004. Nonstate trade companies

## China's WTO Accession Effort: A Chronology

### 1986

People's Republic of China applies to join GATT (General Agreement on Tariffs and Trade).

### 1994

China begins a new push to join GATT.

### 1995

World Trade Organization (WTO) created to replace GATT as an institutional framework for overseeing trade negotiations and adjudicating trade disputes.

### 1995-97

China cuts import duties on many goods, but maintains high tariffs on others, particularly agriculture products.

### 1999

*April 8.* China offers major trade concessions in negotiations with the U.S., but differences over key issues remain. The two countries issue a statement committing to finish negotiations in 1999.

*November 15.* U.S.-China negotiators agree on a bilateral market access deal, moving China a step closer to joining the WTO.

### 2000

China continues bilateral negotiations with other interested WTO Members (the European Union and Argentina, among others).

with the right to trade would be allocated 10 percent of the TRQ.

China's accession to the WTO is projected to result in an average annual increase over the Baseline of \$484 million in net wheat imports between 2000 and 2009. The Baseline projects annual average net imports of \$243 million by China during this period, compared with an annual average of \$727 million in net wheat imports in the WTO scenario.

China has imported less than 2 million tons of wheat each year over the last 3 years, and stocks are relatively high. Nevertheless, imports are expected to increase under WTO accession because of demand for high-protein-content wheat in urban areas and a decrease in trade barriers for the previously banned U.S. Pacific Northwest soft white wheat.

While stock adjustments could delay rising imports, even relatively modest changes in production and consumption would quickly drive imports above previously expected Baseline levels. China is

expected to surpass Baseline wheat import levels almost immediately upon WTO accession.

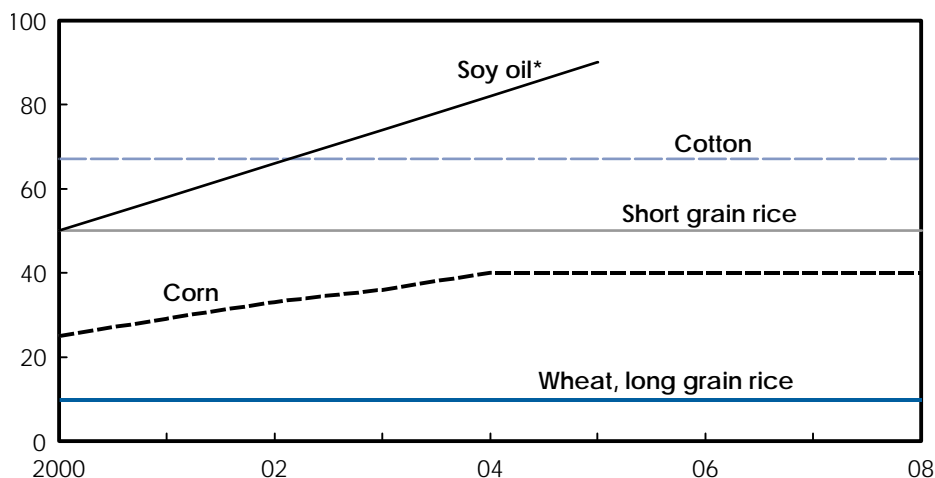
Recent changes in government procurement policy lowered wheat protection prices and initiated a phasing out of government purchases of low-quality wheat. This is expected to reduce marginal areas planted to winter wheat in northwest China and the region south of the Yangtze River, and spring wheat areas in northeast China. Lower prices will reduce wheat production overall, may modestly increase consumption and, in turn, foster higher levels of imports. South China is the likely destination for much of the additional imports needed to meet the demand for wheat (for noodles, cakes, biscuits and pastries). North China should continue to be supplied primarily by domestic production, though it too relies on imported wheat for blending purposes.

**Rice.** China committed to a tariff-rate quota of 2.66 million tons for rice in 2000, rising to 5.32 million in 2004. Within-quota and over-quota tariff rates

## World Agriculture & Trade

### Reserving Share of TRQ for Nonstate Traders Would Dilute China's State Trading Monopoly

Percent



Required nonstate share under terms of the U.S.-China bilateral WTO accession agreement.

TRQ = Tariff-rate quota.

\*Soy oil TRQ would be eliminated by 2006 and converted to a low tariff-only regime.

Economic Research Service, USDA

are the same as for corn and wheat. Half the quota would be reserved for medium/short grain (japonica) rice; the remainder would be for long grain (typically indica) rice. (For a discussion of rice types, see *AO* December 1999.) Nonstate trade companies with the right to trade would be allocated 50 percent of the quota for japonica imports and 10 percent of the indica quota.

China is a large net exporter and would remain so upon WTO accession. Compared with the Baseline, China's net annual average rice exports are expected to increase by \$15 million between 2000 and 2009 due to WTO accession. However, because of the cap on domestic subsidies, China's internal prices could drop, reducing rice production as well as exports to third-country markets.

Although the share of the TRQ quota for japonica rice is 1.3 million tons rising to 2.6 million, China is not likely to import material quantities of japonica rice in the near future. China currently imports *indica* rice almost exclusively, mainly premium Thai jasmine for high-income urban consumers. There is little likelihood that China's WTO accession would prompt a large increase in its indica rice imports.

**Cotton.** China committed to a tariff-rate quota of 743,000 tons for cotton in 2000, increasing to 894,000 in 2004. The within-quota import duty would be 1 percent, and the over-quota duty would decline from 69 percent in 2000 to 40 percent by 2004. Nonstate trade companies with the right to trade would be allocated 67 percent of each year's quota.

China's accession to the WTO is projected to result in an average annual increase over the Baseline of \$328 million in net cotton imports between 2000 and 2009. The Baseline projects annual average net imports of \$429 million by China during this period, compared with an annual average of \$757 million in net cotton imports in the WTO scenario.

China began liberalizing its domestic cotton marketing channels and prices in September 1999, and WTO accession will extend liberalization to cotton trade. Because China's domestic prices were fixed until recently at levels set during a period of near-record-high world prices, effective price reform could be expected to lower domestic prices and production and raise consumption, and China's textile exports to developed countries would be greater with accession to the WTO, further

increasing cotton consumption. Under the Uruguay Round Agreement, the developed-country import quotas for textiles and apparel, created through the Multifiber Arrangement (MFA), are scheduled for elimination by 2005 for all WTO Members (although the U.S. would have recourse to two new product-specific safeguards to protect against any surge of imports). Without WTO membership, China would continue to face bilaterally negotiated quotas in its major export markets.

With prices and production lower and consumption higher, relaxation of import barriers would increase cotton imports. The key unknown in this scenario is the size and expected utilization of China's cotton stocks. Policy changes that support a drawdown of stocks could delay the onset of increased imports.

A rapid clearing of stocks during the very early period of implementation means imports would be lower than would otherwise be the case. This suggests further that exports could be larger than USDA projections for the period. However, the likelihood and duration of such a situation is extremely difficult to gauge because data on the size and usable share of China's stocks are considered a state secret.

**Soy oil, soy meal, and soybeans.** China committed to a tariff-rate quota of 1.72 million tons for soy oil in 2000, rising to 3.26 million in 2005. Within-quota imports would be subject to a low duty (9 percent), while over-quota duties would be assessed at 74 percent in 2000, falling to 9 percent in 2006. Nonstate trade companies with the right to trade would be allocated 50 percent of the TRQ in 2000, rising to 90 percent in the year 2005. The TRQ system for soy oil would be eliminated by 2006 and converted to a bound 9-percent tariff rate.

China's accession to the WTO is projected to result in an average annual increase over the Baseline of \$348 million in net soy oil imports between 2000 and 2009. The Baseline projects annual average net imports of \$455 million by China during this period, compared with an annual average of \$803 million in net soy oil imports in the WTO scenario.



China is expected to import growing amounts of over-quota soy oil as the over-quota duty declines, and imports will see strong growth after the soy oil TRQ system is eliminated after 2005. Palm and rapeseed oil are potential competing products for soy oil. But continued strong demand for soy oil for home consumption and for use in some specific processed food items limits to some extent the potential substitution for soy oil imports.

In addition to the soy oil TRQ, China is also binding import tariffs for *soybeans* (3 percent) and *soy meal* (5 percent) and allowing unrestricted trade by all nonstate companies with the right to trade. China's accession to the WTO is projected to result in an average annual increase in soy meal imports of \$221 million over the Baseline between 2000 and 2009. The Baseline projection is for annual average net imports of \$281 million by China during this period, compared with an annual average of \$501 million in net soy meal imports in the WTO scenario.

China's annual average soybean imports under WTO accession are projected to be \$398 million lower than the Baseline projection, in response to a change in the current trade policy that favors bean imports over imports of oil and meal. With liberalized trade in meal and oil, inefficiencies of the domestic crushing industry will reduce the competitiveness of soybean products relative to direct imports. Therefore, soybean product imports are expected to increase to meet rising demand for soy meal for livestock feed and soy oil for the food processing industry and for cooking. The result will be lower domestic soy oil and soy meal prices. Due to a reduction in soybean imports relative to the Baseline, the net gain in average annual soy complex imports (soybeans, soy oil, and soy meal) due to WTO accession is expected to be a relatively modest \$171 million over the projection period.

### ***U.S. Farm Income Should Rise***

Accession of China to the WTO would increase the volume of global U.S. exports of most major field crops over Baseline levels. Higher foreign demand for field crops and related products would lead to an increase in U.S. major field

### ***Behind the Numbers— the Country Linked System***

The China WTO analysis uses the Country Linked System of models (CLS), developed at USDA's Economic Research Service. The system contains 42 foreign country and regional models, and the Food and Agricultural Policy Simulator (Fapsim) model of U.S. agriculture. The country models account for policies and institutional behavior, such as tariffs, subsidies, and trade restrictions. A rest-of-world model handles any missing country/commodity coverage. In general, production, consumption, imports, and exports in the models depend on world prices (determined by the system), on macroeconomic projections (determined outside the system), and on domestic and trade policies (determined inside or outside the models). The CLS is large, containing about 18,000 equations per year of projection, and incorporates an extensive amount of USDA country and commodity analysts' expertise.

The China model used in this analysis incorporates behavior of state trading enterprises (STE's) into import and export equations for each commodity. World price signals enter the domestic market only to the extent that these STE's respond. China's domestic prices adjust until suppliers make available just as much as users will want to buy. Analysts' judgement addresses the institutional and behavioral changes that are expected to accompany WTO accession (e.g., liberalization of agricultural markets and allowing private importing firms in China). In the WTO scenario, liberalization of agricultural trade was introduced into the China model by increasing China's likelihood of purchasing imports (i.e., shifting the intercepts of the import equations).

Fapsim is an annual econometric model of U.S. agriculture whose structure reflects economic theory and institutional knowledge of the sector. The model contains over 700 equations that describe supply, use, prices, and policies, such as commodity loan rates and marketing loans.

The system reaches simultaneous equilibrium in prices and quantities for 24 world commodity markets, for each of 12 projected years in this analysis. The 24 commodity markets include coarse grains (corn, sorghum, barley, and other coarse grains); food grains (wheat and rice); soybeans, rapeseed, sunseed, and other oilseeds (and their corresponding meals and oils); other crops (cotton and sugar); and animal products (beef and veal, pork, poultry, and eggs).

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crop prices, which would boost farm income. Average price increases for corn, wheat, upland cotton, and soybeans would be 1.5 to 4.5 percent above Baseline levels over the 2000-09 period.

China is expected to increase its imports of processed soybean products (oil and meal), while decreasing its imports of unprocessed beans. U.S. soybean exports would decline by about 6 percent, on average, over the 2000-09 period. However, exports of soybean oil and meal would show a concurrent average increase of 23 and 12 percent, respectively. Increased demand for soybean products would increase demand for soybeans used to produce them and increase the soybean price.

Higher crop prices would raise feed prices in the U.S. livestock industry. As a result, profitability of livestock production would decline, and producers would reduce production. This would reduce supply and increase both farm and retail prices. Farm prices for steers, hogs, and broilers would increase, on average, from 0.5 to 2.5 percent above Baseline levels over the 2000-09 period.

Increased U.S. export volumes coupled with higher commodity prices would raise the value of global U.S. exports of major field crops in 2005 by \$1.6 billion, or 2.6 percent, over the Baseline projection. Most of this increase would be associated with the export of bulk commodities. Additional gains would result from significantly reduced tariffs for other products



## World Agriculture & Trade

### China's Accession To WTO Would Boost U.S. Ag Exports and Farm Income From Projected Levels

	Baseline		Change from Baseline with China's accession	
	2005	2000-09 average	2005	2000-09 average
	\$ billion			
Value of U.S. agricultural exports				
Grains and feeds	19.4	18.9	1.0	0.9
Oilseeds and products	10.7	10.5	0.1	0.1
Cotton and linters	2.6	2.6	0.5	0.4
Other	30.7	30.2	0.1	0.1
Total	63.5	62.2	1.6	1.5
U.S. farm income				
Cash receipts from marketings				
Crops	115.5	113.9	1.8	1.5
Livestock	105.9	104.9	1.4	1.2
Farm production expenses	212.1	210.3	1.5	1.2
Direct Government payments to farmers	6.1	7.9	0.0	-0.3
Other adjustments to farm income	28.5	28.2	0.0	0.0
Net farm income	43.9	44.6	1.7	1.1
	1982-84=100			
U.S. Consumer Price Index for all food	185.8	184.3	0.5	0.4

Fiscal year exports; calendar year for other indicators. Excludes exports of high-value products such as poultry, pork, beef, fruits, vegetables, tree nuts, and forestry products. Change measured from USDA Baseline projections released February 24, 2000.

Economic Research Service, USDA

excluded from this analysis, including poultry, pork, beef, citrus, other fruits, vegetables, tree nuts, and forest and fish products.

Net farm income for the sector, taking into account reduced government outlays, would increase in 2005 by \$1.7 billion, or 3.9 percent, over the Baseline projection. Higher crop prices together with higher

product demand would increase cash receipts from farm marketings of crops by \$1.8 billion over the Baseline in 2005. Cash receipts from farm marketings of livestock products would be \$1.4 billion over the Baseline, due to higher livestock prices. Total farm production expenses would be \$1.5 billion above the Baseline, due primarily to higher feed costs.

Over the 2005-09 period, the increase in total cash receipts is partially offset by reduced government payments. The government currently offers a marketing loan program for most major field crops. This program is designed to offer income protection to producers when crop prices are low by filling the gap between the announced program loan rate for the crop, and the market price. The Baseline projects that these loan deficiency payments (LDP's) will be paid to eligible producers over the 2000-06 period. An increase in farm prices would reduce payouts of LDP's. Price increases would put annual LDP's \$0.3 billion below the Baseline, on average, over the 2000-09 period.

With higher prices for agricultural products, especially livestock products, retail food prices would rise very slightly above Baseline levels. **AO**

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## CHINA'S AGRICULTURAL SECTOR

A forthcoming report on agriculture in China against the backdrop of its overall economy, with a focus on China's growing feed industry

In the Economic Research Service **International Agriculture and Trade** series

Watch for it on the ERS website [www.ers.usda.gov](http://www.ers.usda.gov)

## Transportation



BNSF Rail

### North American Railways— Signaling a New Urge to Merge?

A proposed merger between Burlington Northern Santa Fe Railroad (BNSF) and Canadian National Railroad (CN) would create North America's largest railroad, stretching 50,000 miles from Los Angeles to Halifax, Nova Scotia, and from the Gulf of Mexico to Vancouver, British Columbia. The new holding company, North American Railways, would surpass all other railroads in North America in revenue, miles of track, and number of employees.

The announcement on December 20, 1999, shocked nearly all rail industry observers, who generally believed that service-related problems stemming from recent railroad mergers in the U.S. had temporarily cooled the industry's merger fervor of the past 5-6 years. If the merger is approved by the U.S. and Canadian governments, the announcement may mark the beginning of a new "urge to merge" as other railroads in North America scramble to find partners.

BNSF currently operates one of the largest rail systems in North America with over 34,000 route-miles of track in 28 states and two Canadian provinces. The Canadian National Railroad (CN), the

only transcontinental rail system in North America, is one of two large Canadian railroads and operates 16,000 route miles in nine Canadian provinces and 15 U.S. states. Until it was privatized in 1996, CN was owned and operated by the Canadian government. Both CN and BNSF railroads have diversified traffic bases consisting of coal, merchandise, grain, and intermodal shipments (containers or truck trailers carried on railroad flatcars). Principal interchanges between the two railroads are at Chicago, Memphis, Duluth/Superior, and Vancouver.

The international dimension of the merger promises to make it provocative among the general populace in the U.S. and Canada, based on its sheer size and potential for integrating railroad service and markets in both countries. But Canadian ownership and operation of rail lines in the U.S. is not new. Canadian Pacific acquired the Soo Line in the late 1980's, and last year Canadian National acquired Illinois Central, giving CN a direct route to the Gulf of Mexico. Three-quarters of CN's revenue is currently from U.S. operations and transborder shipments.

The proposed merger is primarily an "end-to-end" combination, which is less

likely than a parallel combination to lessen competition. BNSF and CN will make this point when seeking approval over the next year. Reportedly, only 20 shipping points would see the number of direct rail competitors reduced from two to one.

The BNSF and CN assert several benefits from their proposed merger, most of which would stem from the ability to replace intercompany interchange of freight cars, and delays that result, with more efficient intracompany transfer of cars at interchange points. Thus, BNSF and CN could offer more efficient single-carrier through service to more points in the U.S. and Canada than before. Other potential benefits indicated by the carriers:

- integrated, seamless, single-rail service between Canada and the U.S. with a single invoice and a single account manager;
- enhanced intermodal service connecting eastern Canada with the U.S. Southwest and Pacific Coast points, and the Port of Halifax with the U.S. Southwest.
- more through service by avoiding crowded interchange yards such as Chicago where cars can sit for days;
- access to new markets for some BNSF-CN shippers—e.g., British Columbia forest product producers could ship via a single carrier into California and Arizona and into the lower Midwest and Southwest;
- direct, single-railroad line service to 30 states and Mexico for auto and auto parts manufacturers in Michigan and Southern Ontario, whose CN shipments have to be handed off to other western carriers at Chicago; and
- improved access for Canadian shippers into Mexico and for Mexican shippers to Canada.

#### *Effect on Agricultural Trade*

The proposed merger is likely to have little effect on total U.S. agricultural exports to Canada, the second-largest U.S. market, because most products in this trade are not transported by rail. In fact, 57 percent of the \$9 billion of agricultural and

## Transportation

### Proposed Merger Would Create North America's Largest Railroad . . .



### . . . Dwarfing Two Other Major Merger Candidates



## Transportation

forest products shipped from the U.S. to Canada in 1998 consisted of items that almost always move by truck—fresh and processed fruits and vegetables, meats, dairy products, snacks, and other consumer-ready foods. Other commodities bring the “non-rail” market share to at least 75 percent. Only 6 percent of the value of U.S. agricultural exports to Canada consists of commodities that typically move long distances by rail (e.g., grain and forest products). Consequently, unless new markets develop as a result of the BNSF-CN merger, it should have no appreciable effect on U.S. agricultural exports to Canada.

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*The international dimension of the merger promises to make it provocative among the general populace in the U.S. and Canada, based on its sheer size and potential for integrating railroad service and markets in both countries.*

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In contrast, products generally shipped long distances by rail dominate Canadian exports to the U.S. Because the proposed merger extends single-line rail service into Canadian production areas for forest and bulk agricultural products, it will likely increase these types of Canadian agricultural exports to the U.S. Forest products account for more than half of Canadian agricultural exports to the U.S. (\$18.8 billion total in 1998), and bulk exports account for another 6 percent. Only 23 percent of the total were commodities shipped mostly by truck—fresh and processed fruits and vegetables, meats, dairy products, snacks and other consumer-ready foods.

Would the merger encourage the use of Canadian ports for exporting U.S. grain? Probably not, because the CN east-west route across western Canada is circuitous relative both to the more southern Canadian Pacific line and to the BNSF route to U.S. Pacific Northwest ports. Moreover, the BNSF currently has most westbound export movements from U.S. northern tier states locked up, and would be unlikely to compete against itself by

promoting the routing of grain through Canada on the CN. Other factors mitigating the likelihood of U.S. grain moving to export via the CN are that Canadian grain handling costs are higher, capacity problems at the Canadian west coast have at times limited the quantity of exports, and grain exports at Vancouver are periodically disrupted by labor disputes.

The merger should also not significantly affect offshore Canadian grain exports, as long as Canadian export rail rates remain capped. Canadian grain for export is usually shipped at statutorily set railroad rates, not available to U.S. shippers, which are capped at just above variable cost. In contrast, railroads in the U.S. price in a more commercial environment at what the traffic will bear. As a result of these two radically different pricing environments, Canadian rail rates for grain movements to West Coast export positions are currently only 50–60 percent of U.S. rail rates for comparable movements out of the Pacific Northwest. Still, Canadian grain has occasionally moved through U.S. ports for export when logistical problems have arisen in Canada. Southbound movement of Canadian grain through the U.S. grain transportation system would be much more likely if railroads in Canada were ever allowed the pricing freedom of railroads in the U.S.

Finally, although grains and oilseeds comprise only 2 percent of the value of U.S.-Canada bilateral trade in agricultural and forest products, the merger should increase trade of these commodities by improving the efficiency of the rail linkages between Canada and the U.S., thereby lowering shipping costs. The largest single merger-related effect on U.S.-Canadian agricultural trade is likely to be on exports of Canadian forest products to the U.S., because of the magnitude of trade in this commodity and the importance of rail to its cross-border movement.

### **Potential Impacts On Trade Relations**

As merits of the merger are debated over the next year, a number of implications are likely to concern U.S. agricultural interests. The merger, for example, could affect the relative trade advantage of U.S. and Canadian grain producers.

Specifically, U.S. producers and exporters are likely to perceive that the merger could heighten the ability of the Canadian Wheat Board (CWB), which has single-desk selling authority for wheat exports, to use its size and affiliation with the Canadian government to negotiate preferential rate and service packages with the BNSF-CN system to move Canadian grain into the U.S. While the historic involvement of the CWB in transportation is currently under review in Canada, a merged BN-CN system will certainly allow all Canadian grain shippers much greater and lower cost access to U.S. markets than before.

Examples of preferential rate/service packages negotiated for Canadian grain shipments into the U.S. are currently coming to light. Research by the Upper Great Plains Transportation Institute and other industry organizations indicate that Canadian Pacific rail rates from points in Canada to Minneapolis are currently as much as 20 percent or 18 cents per bushel lower than for similar or shorter distances on the CP from North Dakota to Minneapolis. Industry contacts indicate that these CP rate discounts for movement of Canadian wheat to Minneapolis were put in place by the CP in response to a similar rate package negotiated with Canadian National by the CWB. While the Wheat Board's actual involvement cannot be verified, this issue is certain to be raised in debate on the proposed merger.

U.S. agricultural shippers are also likely to be concerned about the timing of the proposed merger, as the U.S. rail industry and its customers are still recovering from a series of mergers that disrupted rail service. Rail service problems in the western and eastern U.S. that followed recent mergers, such as the Union Pacific/Southern Pacific merger (AO March 1998, December 1998) and the split of Conrail, have raised awareness among railroads, shippers, receivers, and government regulators of the potential for major service disruptions when two large railroads merge.

The control and influence such a large company would have over North American wheat exports is another area of concern among agricultural interests. Industry sources indicate that BNSF



## Transportation

already controls over half of wheat movements in the U.S., and its share of high-protein hard red winter and spring wheat exports is even higher. CN is one of only two railroads in Canada moving Canadian wheat to export position, and has a 51-percent market share of all Canadian grain movements. When railroads service "captive" shippers, it is the railroad that determines when those shippers can participate in markets. U.S. agricultural interests will be watching how a combined BNSF-CN system would ration capacity among competing U.S. and Canadian grain shippers when demand for rail service exceeds supply.

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*Would the merger encourage the use of Canadian ports for exporting U.S. grain? Probably not.*

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Finally, many shippers in the U.S. are likely to be concerned about the North American railroad structure following the BNSF-CN merger. Just five Class I railroads would remain in North America (Class I railroads have operating revenue of at least \$259.4 million and together account for 71 percent of U.S. mileage operated, 89 percent of railroad employees, and 91 percent of freight revenue.) Other possible railroad mergers could be on the horizon. A followup combination between carriers such as Union Pacific-Southern Pacific and Canadian Pacific is not only likely but probable if the proposed BNSF-CN merger is approved.

### The Next Steps

The proposed merger must be approved by stockholders of each company, by the U.S. Surface Transportation Board (STB), and by a Canadian court regarding compliance with Canadian regulatory requirements. In the U.S., both the BNSF and the CN are expected to file their formal merger application with the STB in March 2000. The STB has up to 30 days after the filing to issue a procedural schedule—a timeline that will guide participation of

all parties in the proceedings. Under current law, STB review and evaluation of the merger can take up to 22 months after application, or a shorter period of time if merger participants petition for an expedited review. The BNSF and the CN have already petitioned the STB for a ruling one year after they file their merger application.

Because of likely followup mergers in the North American rail system in the wake of a BNSF-CN merger, the STB is reexamining its long-held policy of evaluating the proposed railroad merger at hand without considering the impact of other railroad mergers that would likely result. As a first step, STB has announced that it will hold a public hearing on March 8 on the subject of major railroad consolidations and the present and future structure of the North American railroad industry.

The proposed merger has cast renewed attention in the U.S. Congress on reauthorization of the STB as the U.S. regulatory body responsible for railroad oversight and on whether or not to increase STB legal authority to regulate railroads. Some members of Congress favor transferring regulatory oversight over railroad mergers to the U.S. Department of Justice, which adjudicates the merits of mergers, acquisitions, and consolidations under antitrust law for most other U.S. industries.

The issues in the proposed merger illustrate how business consolidations across national borders in key service sectors such as transportation can complicate trading relationships among countries. U.S. agricultural interests are likely to be hesitant about supporting the proposed combination for several reasons. Service problems stemming from past U.S. railroad mergers are fresh memories, and the net benefits to U.S. agriculture from the merger are likely to be small. Other concerns revolve around the interplay between the new railroad and the Canadian Wheat Board, and other North American railroad mergers that may follow if this merger is approved.

The proposed merger and potential followup mergers in North America are likely to make transnational ownership and operation of North American railroads a major transportation issue in both the U.S. and Canada over the next few years. **AO**

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### March Releases— USDA's Agricultural Statistics Board

The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.

#### March

- 1 Broiler Hatchery
- 2 Dairy Products
- 3 Dairy Products Prices (8:30 am)  
Egg Products  
Livestock Slaughter - Ann.  
Poultry Slaughter
- 8 Broiler Hatchery
- 10 Crop Production (8:30 am)  
Dairy Products Prices (8:30 am)
- 13 Turkey Hatchery
- 14 Potato Stocks
- 15 Ag Chemical Usage -  
Postharvest Applic.  
Broiler Hatchery
- 16 Milk Production
- 17 Dairy Products Prices (8:30 am)  
Cattle on Feed
- 20 Cold Storage
- 21 Chickens & Eggs
- 22 Broiler Hatchery
- 23 Agricultural Land Values  
Catfish Processing  
Hop Stocks  
NASS Facts Newsletter (4 pm)
- 24 Cotton Ginnings (8:30 am)  
Dairy Products Prices (8:30 am)  
Hogs and Pigs  
Livestock Slaughter
- 29 Broiler Hatchery
- 30 Agricultural Prices  
Peanut Stocks & Proc.
- 31 Dairy Products Prices (8:30 am)  
Grain Stocks (8:30 am)  
Prospective Plantings (8:30 am)  
Rice Stocks (8:30 am)

## Special Article

## U.S. Farm Policy: The First 200 Years

**R**ecent stresses in the agricultural economy, coinciding with the approach of the year 2002 when the current farm bill expires, have stirred debate about the direction U.S. farm policy should take in the immediate future. At the same time, passage into a new century and a new millennium heralds a time to consider the future of farm policy over the longer term, raising questions about the goal of public support for agriculture—what it has been and should be. Reflection on the precedents and origins of the policy can help frame the debate.

Reviews of the past as a backdrop for present and future policy often stop at the 1920's in their look backward. Although the last 70 years undoubtedly are critical for comprehending the rationale of current and recent policies, they mark a period when a single approach, one characterized by programs of farm income support, dominated farm policy. Since the founding of the national government more than 200 years ago, farmers have been supported by a series of markedly different approaches, which roughly coincide with four periods, all of which overlap through decades of debate and transition.

In the first period, roughly 1785-1890, the focus of “farm” policy was land distribution and expansion of settlement through numerous private farm operations. The second period, from about 1830 to 1914, focused on improving the productivity of farm operations, through support of research and education. The third period, approximately 1870-1933, ushered in limited regulation of markets, infrastructure improvements, and provision of economic information to help farmers compete. The fourth period, since 1924, focused on direct government intervention to provide farm income support. Whether we are currently in a time of transition toward a new type of policy remains to be seen, but over the last 15 years or so, debate about farm income support policies has accelerated. Movements toward more open global trade, an increasing emphasis on market-driven production decisions, and attention to environmental costs of agricultural production have all influenced current policy discussions.

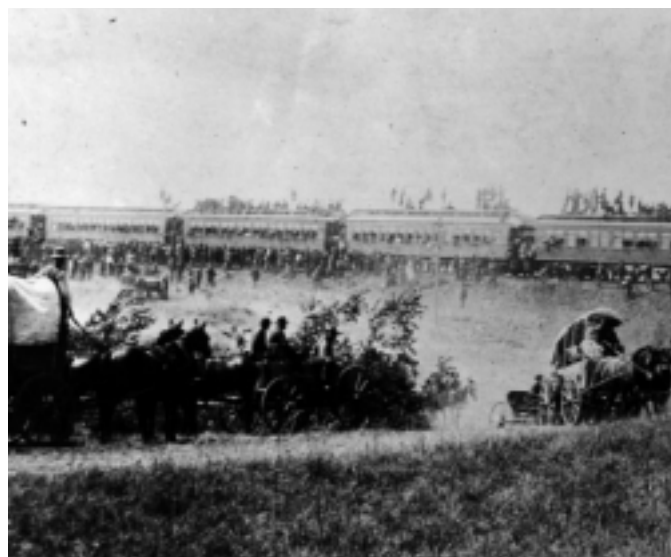
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*“... any person who is the head of a family . . . shall . . . be entitled to enter one quarter section or a less quantity of unappropriated public lands . . . for the purpose of actual settlement and cultivation.”*

*The Homestead Act, 1862*

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Within each of these periods, public policy that addresses the needs of agriculture has faced conflicting interests, often grounded in the consequences of policies and developments of earlier periods. Although resolution of these conflicts has been different in each period, throughout the years a remarkably consistent public consensus has remained: that the problems inherent in farming warrant public support.



### *Promoting Agriculture in the New Nation*

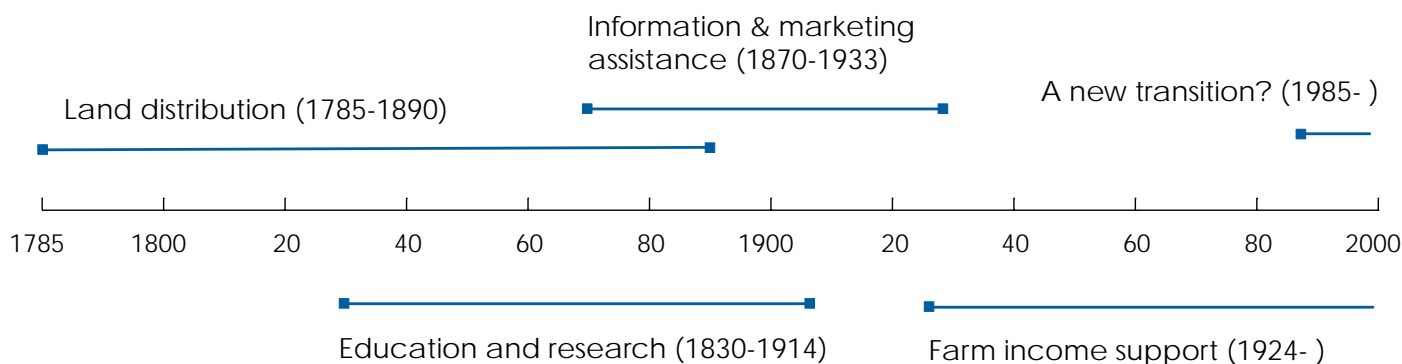
For the first five or six decades after the U.S. became a nation, the focus of national government was expansion and development. As land transfers, purchases, and treaties added territory to the U.S., policies were formulated to encourage the movement of population and industry to fill the space. Policy developments in this period that led to widespread access to land for farming, in a sense laid the foundation for public policy toward the agricultural sector.

Early Federal land policy favored sale of large amounts of land at relatively high prices, to bring revenues to the new government and to transfer public lands into private hands as rapidly as possible. Slow sales, however, and pressure from interests that favored transfer of public lands to small, independent farmers led to progressively more liberal laws governing sale of public lands. Minimum prices per acre were reduced and credit terms eased by legislation in 1790 and 1800. Later laws in 1820, 1841, and 1854 reduced prices further, forgave outstanding debts for land, provided means for illegal settlers—“squatters”—to gain title to land they occupied, and eventually, through the Homestead Act of 1862, provided for free distribution of land to anyone who would settle and farm it. Land distribution on these terms continued in unsettled areas into the 20th century, but the bulk of American farmland had been claimed and the traditional American frontier declared closed by 1890.

Debate over these land distribution issues reflected the conflict between two political-economic philosophies. Those in favor of selling large parcels at high prices believed public lands were an asset that should be sold to bring the greatest revenues to the government, reducing the need for taxes and assuring that the landowners could afford to develop it constructively.

## Special Article

### Policy Eras in U.S. Agriculture



Economic Research Service, USDA

Those who favored lower prices and smaller minimum parcels believed the best use of public land was to foster as much settlement as possible by small, independent farmers. Widespread settlement would support further development by increasing population in new areas, fueling economic growth, and in the earliest years, securing the territorial claims of the new nation. It would also assure the development in the new territories of a reliable independent citizenry not beholden to the politically or economically powerful. These citizens would own their own land and depend only on the labor of their own families for their well-being, exemplifying the agrarian ideal.

Debate between the two points of view was also embedded in the regional politics of the day. In the first decades of the 19<sup>th</sup> century, older states along the eastern seaboard resisted relatively open access to land for farming in the West. Settlement in the new areas threatened their political dominance and threatened the national treasury through loss of potential revenues from land sales and increasing demands for transportation developments to link the old and new regions.

In the decades preceding the Civil War, proponents of the southern plantation system of agriculture began to oppose the increasingly open access to public land. They viewed it as public promotion of an agricultural system based on an agrarian ideal that was at odds with their own system. With secession of the southern states in 1860, southern political leaders left the U.S. Congress, leaving proponents of free distribution of public land and other forms of assistance to small farmers virtually unopposed. Success in embedding this agrarian ideal in land policy, symbolized by passage of the Homestead Act, laid the basis for continued influence of that ideal in farm policy debates into the future. The national government had used its resources—in this case land—to encourage and support expansion of an agricultural structure of independent family farms. Thus Federal land policy created a precedent of Federal support for an independent family farm system, which has continued to be a prominent public goal of farm policy.

### Moving Agriculture Toward Efficiency

As land policy continued encouraging increasing numbers of independent farmers across the U.S., improving American farmers' productivity and quality of life became a goal among progressive farmers, journalists, educators, and producers of commercial farm inputs. In the 1820's, farmers began to organize into state and county agricultural societies and to promote the need for specialized training and scientific research to advance the productivity and professionalism of the industry.

*"... in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same ... there may be inaugurated ... agricultural extension work ... in cooperation with the United States Department of Agriculture."*

*The Smith-Lever Act, 1914*

Much of the support for these ideas came from older farming regions of the South and East, which had begun to suffer from competition with newly opened lands in the West. The availability of extensive, fertile lands on which staples like wheat, cotton, and livestock could be produced more cheaply forced farmers in older, settled regions to evaluate their production methods. Years of cultivation without attention to preserving fertility of the soil had led to falling yields and even abandonment of land, particularly in areas growing cotton and tobacco. Some of these farmers saw potential for greater competitiveness through, for example, improved fertilizers and better methods of preparing soil for planting. Agricultural education and scientific research would be the source of these potential improvements.



Agricultural leaders looked to government for support of education and research programs. To a certain extent, the call for Federal support for improved productivity in farming grew out of the consequences of earlier land policy—Federal distribution of public lands in the West increased competition for farmers in the older regions of the nation, making the Federal government partially responsible for helping farmers in the older regions improve their productivity. But arguments for public support of agricultural education and scientific research rested largely on the belief that to be effective, advancements in agricultural productivity needed to be broadly accessible to the large population of independent farmers on whom the nation depended for food and fiber.

The U.S. was maturing as a nation and experiencing rapid urban and industrial growth in cities along the eastern seaboard. As manufacturing developed, employing increasing numbers of people, agriculture became a distinct economic sector, working in tandem with other industries to help the nation grow. Improving the productivity of this sector would support the development of other industries, by releasing labor for emerging factories, and by providing food and fiber for the increasing urban population, as well as inputs for these new industries—textile mills, for example.

Federally supported agricultural education and scientific research eventually took four major forms: establishment of the U.S. Department of Agriculture, authorization of a national system of agricultural colleges, appropriation of Federal funds to support agricultural science research at state agricultural experiment stations, and organization of an adult education system, USDA's Cooperative Extension Service. The first two of these took place in 1862, the year the Homestead Act was passed. Federal support for agricultural research at state experiment stations began about a decade later in the 1870's, while the Cooperative Extension Service was established in 1914.

### ***Agrarianism Clashes with Industrialism***

As agriculture, manufacturing, and other industries continued to expand, the increasing consolidation and wealth of urban-based industries began to contrast with the relative poverty and unconsolidated nature of agriculture. Beginning in the 1870's and lasting through the 1890's, chronic national surpluses of farm products depressed prices, while on a regional level repeated droughts, grasshopper infestations, and other natural disasters compounded problems for farmers in the recently settled lands of the Great Plains and Far West. Repeated national financial panics throughout the period made credit scarce and expensive. Meanwhile, as farmers saw their incomes falter, they watched the rising revenues and increasing political influence of railroads, processors, and urban financial interests, apparently the beneficiaries of regional monopolies, high interest rates, and high tariffs that protected manufacturing and other industries at the expense of farmers.

Demands from farm interests for Federal action drew on the same ideology that had supported free distribution of public

lands. Free land turned out to be insufficient, particularly as farmers moved beyond self-sufficient frontier farming and became increasingly dependent on markets. Having settled western lands with Federal government support, farmers on these lands looked to the Federal government for new kinds of support when they began to face decades of harsh conditions.

Farmers, primarily in the West and South, organized to demand assistance in the form of Federal government regulation. Eventually forming the Populist Party in the 1890's, they advocated national government control of an expanded money supply, government ownership of transportation (railroads) and communication (telegraph) systems, an income tax to replace high tariffs as a source of Federal revenue, and continued government support for distribution of land to small, independent farmers.

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*"... it is hereby declared to be the policy of Congress to promote the effective merchandising of agricultural commodities in interstate and foreign commerce, so that the industry of agriculture will be placed on a basis of economic equality with other industries, and to that end to protect, control, and stabilize the currents of interstate and foreign commerce in the marketing of agricultural commodities and their food products."*

*Federal Farm Board Act of 1929*

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The Populist assumption that fostering agriculture was a proper concern of government remained essentially unquestioned, although not all participants in the debate believed government regulation of markets was the proper form of assistance. As Populist ideas spread, particularly in the Plains, other farm organizations proposed expanding education and research programs to help individual farmers compete in free markets. During the 1910's and 1920's, these programs were administered particularly through the Cooperative Extension Service and USDA's new Bureau of Agricultural Economics, established in 1924. During the same period, legislation exempting agricultural cooperatives from antitrust regulation left farmers free to join together for the purpose of purchasing inputs or marketing their products. Market information services and infrastructure development, especially farm-to-market roads, through Department of Agriculture programs equipped small rural producers with market access and economic information that larger commercial interests acquired privately.

### ***Tackling Economic Depression & Chronic Overproduction***

During the years 1910-14, the rise in population migration from rural areas to cities and the end of what had been a continual expansion of acreage in agricultural production led to slower growth in food production. With increased demand for food from growing U.S. urban populations and, during the second half of the decade, from a world embroiled in war, food prices reached



## Special Article

levels at which farmers seemed to have achieved incomes on a par with other sectors of the economy. The U.S. farm population peaked around 1910 at about 32 million and the number of farms in the U.S. peaked around 1920 at about 6 1/2 million.

Soon after the war ended, however, international food demand plummeted as European production started to recover, and U.S. farm prices fell sharply. In response, farm leaders began laying out a proposal for a national program to support farm prices by controlling domestic supplies and using exports to absorb surpluses. Although Presidential vetoes held off the program during the 1920's, Congress twice passed measures providing for direct government intervention to lift farm prices by controlling supplies. The Federal government did implement some programs to regulate markets and to improve farm credit, but the limited intervention had little effect in improving the farm economy.

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*"It is hereby declared to be the policy of Congress . . . To establish and maintain such balance between the production and consumption of agricultural commodities . . . as will reestablish prices to farmers at a level that will give agricultural commodities a purchasing power . . . equivalent to the purchasing power of agricultural commodities in . . . the prewar period, August 1909-July 1914."*

### *The First Agricultural Adjustment Act, 1933*

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It took a Depression to get the price supports farmers wanted. The demands of agriculture for an equal share of prosperity were swept up in a much broader package of direct Federal interventions as the economy at large faltered at the end of the 1920's. Beginning with Franklin Roosevelt's New Deal in 1933, the solution to rapidly falling farm incomes was primarily price supports, achieved through dramatic reductions in supply. Supply controls for staple commodities included payments for reduced planting and government storage of market-depressing surpluses when prices fell below a predetermined level. For perishable commodities such as milk and some specialty crops, supply control worked through a system of marketing orders that provided negative incentives for producing beyond specified levels.

The combination of price supports and supply management functioned as the essential outline of Federal farm policy from 1933 until 1996, and continues to figure in current debate, although the mechanisms and relative weights of the policies' components were modified by successive farm legislation. In some years, notably during World War II and postwar reconstruction, and again during the early 1970's and mid-1990's, global supplies tightened sharply, sending demand and prices soaring above farm price supports and rendering acreage reduction programs unnecessary. But for most of the period, repeated cycles of above-average production and/or reduced global demand put downward pressure on prices, keeping the programs popular and well funded.

Deepening distress in the agricultural economy in the 1920's and economic depression in the 1930's had fueled political support for a new direction in farm policy. Limited market regulation and programs to help farmers compete had not been enough to keep farm incomes from falling; the call for more direct intervention had gained support. Continued public support for direct intervention after World War II arose for different reasons.

Low prices and consequent low farm incomes of the 1920's and early 1930's had been the result of surpluses created by sharply reduced global and domestic demand, beginning with Europe's return to normal production after World War I and followed by the international economic depression of the 1930's. Surpluses in years following World War II resulted from rapidly increasing productivity, exacerbated by continuing high price supports that kept production above demand. The apparent success of production controls and price supports in raising and maintaining farm incomes by the mid-1930's, however, made a continuation of these policies publicly acceptable.

Nonetheless, intense debate between proponents of high price supports and those who believed farm prices should be allowed to fluctuate according to market demand continued from the mid-1950's to the mid-1960's. The debate was set in the context of large surpluses, low prices, and efforts led by the Eisenhower administration to return the U.S. economy and government bureaucracy to pre-New Deal, pre-World War II structures. Out of the debate—between advocates of very high price supports and mandatory production controls and those who wished to end direct government market intervention—came a compromise for farm policy. The Food and Agriculture Act of 1965 made most production controls voluntary and set price supports in relation to world market prices, abandoning the "parity" levels intended to support farm income at levels comparable to the high levels achieved during the 1910's. A system of direct income support ("deficiency") payments compensated farmers for lower support prices.

The debate over price supports and supply control recurred with enough intensity to divert the direction of policy in the mid-1980's. The new setting was the farm financial crisis and its aftermath, along with efforts by the Reagan presidency to end "big government" and place the American farm economy on a free-market footing. This time, with steadily increasing government stocks of program commodities and Federal budget deficits at record levels, the argument against continuing expensive government support of the farm economy gained support. At the same time, the farm crisis began to undermine some of the farm sector's confidence that domestic price supports and production controls were a very effective way to secure U.S. farm income in a global economy. Supported U.S. prices reduced international marketing opportunities and increasing global supplies undercut domestic production control efforts. Farm legislation passed in 1985 and 1990 maintained the traditional combination of price supports, supply controls, and income support payments, but introduced changes that moved farmers toward greater market orientation—i.e., lower price supports, greater planting flexibility, and more attention to developing export opportunities for farm products.

By the time of the Federal Agriculture Improvement and Reform Act of 1996, which legislated a dramatic shift in the character of Federal assistance to farmers, farm policy seemed to be again passing into a new period, pressed by the rising costs of farm income support programs and by the requirements of global agreements that farm income support programs keep production decisions tied to market signals. The new policy consensus behind the 1996 legislation held that farmers would be better equipped to compete in global markets under a system that allowed nearly complete planting flexibility and that promised continued government efforts to enhance access to international markets. To ease the transition from previous policy, the 1996 act offered a program of decreasing fixed income support payments no longer tied to production decisions.

### *Another Transition at Hand?*

During the period of short supplies and high prices immediately following passage of the 1996 Farm Act, the consensus favoring the new policy direction held. With the return of low prices in 1998—the result of good weather and global financial crises—the debate has resumed about whether traditional policies of direct income support tied to price fluctuations are the most effective solution to farm income variability. But a host of post-World War II developments in agriculture has led to a markedly changed context for farm policy in the last decade and a half, and that new context has produced some new challenges.

Increasing productivity has reduced the number of people needed to work on farms and decreased profitability has reduced the number who can be supported by income from a single family farm. While many farm residents have left rural areas for employment in cities, others have stayed and found employment or developed businesses to supplement their household income. Sources of income to farm households have greatly diversified, complicating questions of how the appropriate level of farm income support should be calculated and how it should be delivered.

Also since World War II, the business of farming and food production has become increasingly consolidated and industrialized. Average farm size continues to grow. Contract production in poultry, hogs, and other commodities has become common. Consolidation is evident in the food processing, transportation, and trading sectors of the agricultural economy. Consumer preferences in diet and food preparation have changed dramatically. These and other developments have led to production processes and business relationships resembling other industries more than the traditional agrarian model of small independent producers—the model on which earlier periods of farm policy have been based.

International trade issues have grown in importance over the last 50 years, as soaring productivity of U.S. farms has created a need for additional outlets for U.S. goods, preferably in export markets. But these issues have gained increased significance in deliberations over domestic farm policy in the last 15 years as new global and regional agreements have been negotiated that require reduction in trade-distorting farm policies. Income sup-

port policies that have been traditionally used since the 1930's are limited in this trade environment because they can affect individual production decisions which in turn can affect global commodity markets.

Equally challenging will be integrating the increasingly complex and changing goals of environmental policy with agricultural policy. Conservation programs for agriculture began primarily as efforts to combat soil erosion, an objective driven largely by concern for improving productivity. More recently, efforts have focused on a broader array of issues—water and air quality, wildlife habitat, and open space and landscape preservation—not driven by concern for agricultural production, although they may offer such benefits. The goal, rather, has become controlling environmental impacts beyond the farm.

These postwar developments seem likely to produce some marked changes in the approach to farm policy, although they do not yet seem to have weakened public support for some kind of direct assistance to farmers. The tradition of public support for farmers has persisted through a long history of changing contexts and policy responses—from access to land to access to education and research and from marketing and information programs to income support programs.

All of these policies have been rooted in attempts to ensure opportunities for individuals and families to make a living at farming, beginning with Federal land policy. With its promise of virtually open access to land, the policy offered nearly anyone the chance to become a farmer with a minimal investment. Each period since has ushered in a new policy approach intended to help farmers improve their incomes in the face of ever-increasing production. Current challenges facing farm policymakers may test the strength of public support for the direct income support programs typical of the last 70 years, and will surely require creativity in crafting policies that function well in the new context of advanced structural change, global trade constraints, and new environmental goals. **AO**

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### **March Releases— USDA's Agricultural Statistics Board**

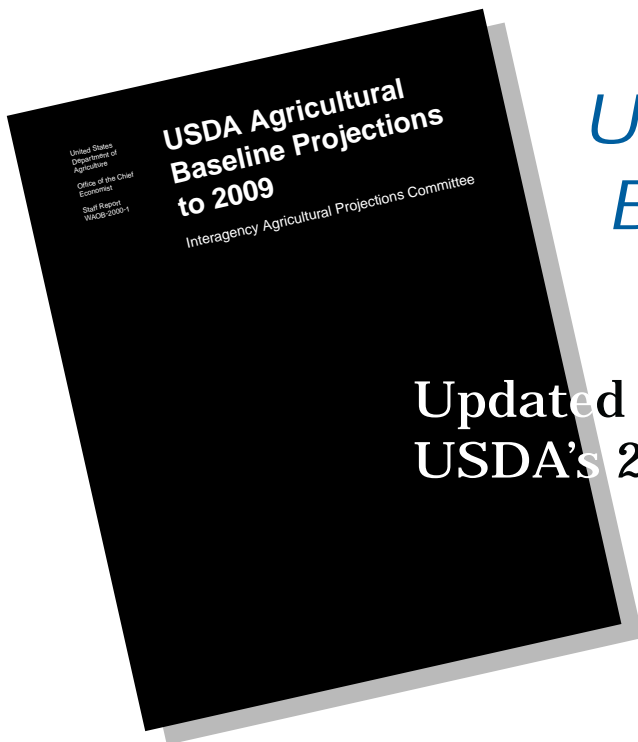
*The following reports are issued electronically at 3 p.m. (ET) unless otherwise indicated.*

#### **March**

- 6 Aquaculture\*
- 10 World Agricultural Supply & Demand Estimates  
(8:30 am)
- 13 Cotton & Wool Outlook (4 pm)\*\*  
Oil Crops Outlook (4 pm)\*\*  
Rice Outlook (4 pm)\*\*
- 14 Feed Outlook (9 am)\*\*
- 20 Agricultural Outlook\*
- 22 Fruit & Tree Nuts\*
- 24 U.S. Agricultural Trade Update (3 pm)
- 27 Wheat Yearbook\*
- 28 Livestock, Dairy & Poultry (4 pm)\*\*

\*Release of summary, 3 p.m.

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# Statistical Indicators

## Summary Data

Table 1-Key Statistical Indicators of the Food & Fiber Sector

	1999				2000					
	1998	1999 F	2000 F	I	II	III	IV F	I F	II F	III F
Prices received by farmers (1990-92=100)	101	--	--	96	97	96	--	--	--	--
Livestock & products	97	--	--	95	93	96	--	--	--	--
Crops	106	--	--	98	102	96	--	--	--	--
Prices paid by farmers (1990-92=100)										
Production items	113	--	--	111	111	112	--	--	--	--
Commodities and services, interest, taxes, and wage rates (PPITW)	115	--	--	115	115	115	--	--	--	--
Cash receipts (\$ bil.) <sup>1</sup>	197	192	190	47	42	47	57	45	42	--
Livestock	95	97	97	24	23	25	25	23	23	--
Crops	102	95	93	23	19	21	32	22	19	--
Market basket (1982-84=100)										
Retail cost	163	--	--	167	167	--	--	--	--	--
Farm value	103	--	--	101	97	--	--	--	--	--
Spread	195	--	--	203	204	--	--	--	--	--
Farm value/retail cost (%)	22	--	--	21	21	--	--	--	--	--
Retail prices (1982-84=100)										
All food	161	164	167	164	164	164	165	166	167	168
At home	161	164	167	164	164	164	165	166	167	167
Away from home	161	165	169	164	165	166	167	168	168	169
Agricultural exports (\$ bil.) <sup>2</sup>	53.6	49.0	49.0	11.8	11.3	11.6	13.6	12.8	11.5	--
Agricultural imports (\$ bil.) <sup>2</sup>	37.0	37.4	38.0	9.6	9.9	8.8	8.9	9.4	9.5	--
Commercial production										
Red meat (mil. lb.)	45,134	46,139	44,724	11,384	11,368	11,627	11,760	11,364	11,128	11,302
Poultry (mil. lb.)	33,667	35,534	37,115	8,638	9,072	8,986	8,838	9,065	9,400	9,315
Eggs (mil. doz.)	6,658	6,911	7,080	1,693	1,706	1,728	1,785	1,750	1,745	1,765
Milk (bil. lb.)	157.4	162.7	165.5	40.5	42.0	39.8	40.4	41.8	42.8	40.4
Consumption, per capita										
Red meat and poultry (lb.)	213.5	220.9	220.0	54.1	55.0	55.6	56.2	54.7	55.0	55.2
Corn beginning stocks (mil. bu.) <sup>3</sup>	883.2	1,307.8	1,787.0	1,307.8	8,051.9	5,698.4	3,616.2	1,787.0	8,019.9	--
Corn use (mil. bu.) <sup>3</sup>	8,791.0	9,298.3	9,500.0	3,018.6	2,359.2	2,089.4	1,831.1	3,208.0	--	--
Prices <sup>4</sup>										
Choice steers--Neb. Direct (\$/cwt)	61.48	65.56	67-71	62.43	65.04	65.12	69.65	67-69	67-71	66-72
Barrows and gilts--IA, So. MN (\$/cwt)	34.72	34.03	39-41	28.83	35.18	35.70	36.40	38-40	39-41	40-44
Broilers--12-city (cents/lb.)	63.10	58.10	55-59	58.10	58.60	58.10	57.60	55-57	55-59	56-60
Eggs--NY gr. A large (cents/doz.)	75.80	65.60	59-63	75.00	58.10	66.20	63.00	62-64	53-57	58-62
Milk--all at plant (\$/cwt)	15.42	14.38	12.20-12.90	15.97	12.87	14.83	13.83	11.60-11.90	11.30-11.90	12.20-13.10
Wheat--KC HRW ordinary (\$/bu.)	3.27	2.92	--	3.16	2.92	2.82	2.83	--	--	--
Corn--Chicago (\$/bu.)	2.41	2.01	--	2.16	2.13	1.83	1.91	--	--	--
Soybeans--Chicago (\$/bu.)	6.01	4.61	--	4.95	4.58	4.40	4.53	--	--	--
Cotton--avg. spot 41-34 (cents/lb)	67.02	52.31	--	56.61	55.43	49.11	48.08	--	--	--
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Farm real estate values <sup>5</sup>										
Nominal (\$ per acre)	683	703	713	740	798	844	887	926	974	992
Real (1982 \$)	528	521	507	514	540	558	572	586	604	609
U.S. civilian employment (mil.) <sup>6</sup>	125.8	126.3	128.1	129.2	131.1	132.3	133.9	136.3	137.7	--
Food and fiber (mil.)	23.9	23.5	23.1	23.6	24.3	24.7	24.5	24.6	24.8	--
Farm sector (mil.)	2.0	2.0	1.9	1.8	1.9	2.0	2.0	1.9	1.8	--
U.S. gross domestic product (\$ bil.)	5,803.2	5,986.2	6,318.9	6,642.3	7,054.3	7,400.5	7,813.2	8,300.8	8,759.9	--
Food and fiber--net value added (\$ bil.)	900.2	881.8	924.8	971.4	1,077.1	1,140.8	1,216.5	1,323.3	1,367.2	--
Farm sector--net value added (\$ bil.) <sup>7</sup>	76.0	71.1	75.5	73.1	78.3	75.3	86.7	84.5	74.3	--

F = Forecast. -- = Not available. 1. Quarterly data for 1999 are forecast. 2. Annual data based on Oct.-Sept. fiscal years ending with year indicated.

3. Sept.-Nov. first quarter; Dec.-Feb. second quarter; Mar.-May third quarter; Jun.-Aug. fourth quarter; Sept.-Aug. annual. Use includes exports and

domestic disappearance. 4. Simple averages, Jan.-Dec. 5. As of January 1. 6. Civilian labor force taken from "Monthly Labor Review,"

Table 18--Annual Data: Employment Status of the Population, Bureau of Labor Statistics, U.S. Department of Labor. 7. The value-added data

presented here is consistent with accounting conventions of the National Income and Product Accounts, U.S. Department of Commerce.



## U.S. & Foreign Economic Data

### Table 2-U.S. Gross Domestic Product & Related Data

	1998							1999			
	1997	1998	1999	II	III	IV	I	II	III	IV	
	Billions of current dollars (quarterly data seasonally adjusted at annual rates)										
Gross Domestic Product	8,300.8	8,759.9	9,248.4	8,683.7	8,797.9	8,947.6	9,072.7	9,146.2	9,297.8	9,477.1	
Gross National Product	8,305.0	8,750.0	--	8,683.7	8,772.2	8,930.5	9,058.2	9,131.9	9,282.3	--	
Personal consumption expenditures	5,524.4	5,848.6	6,254.9	5,816.2	5,889.6	5,973.7	6,090.8	6,200.8	6,303.7	6,424.6	
Durable goods	642.9	698.2	758.1	693.9	696.9	722.8	739.0	751.6	761.8	780.1	
Nondurable goods	1,641.7	1,708.9	1,841.1	1,701.2	1,716.6	1,742.9	1,787.8	1,824.8	1,853.9	1,897.7	
Food	817.0	853.4	903.0	847.6	857.6	875.6	885.4	893.4	903.9	929.4	
Clothing and shoes	271.2	286.3	306.2	287.1	286.6	289.2	301.8	306.7	308.1	308.4	
Services	3,239.8	3,441.5	3,655.7	3,421.1	3,476.1	3,508.0	3,564.0	3,624.3	3,688.0	3,746.7	
Gross private domestic investment	1,383.7	1,531.2	1,621.6	1,495.0	1,535.3	1,580.3	1,594.3	1,585.4	1,635.0	1,671.8	
Fixed investment	1,315.4	1,460.0	1,577.4	1,454.2	1,461.7	1,508.9	1,543.3	1,567.8	1,594.2	1,604.1	
Change in private inventories	68.3	71.2	44.3	40.8	73.7	71.4	51.0	17.6	40.8	67.6	
Net exports of goods and services	-88.3	-149.6	-256.8	-153.9	-165.7	-161.2	-201.6	-245.8	-278.2	-301.8	
Government consumption expenditures and gross investment	1,481.0	1,529.7	1,628.7	1,526.5	1,538.7	1,554.8	1,589.1	1,605.9	1,637.2	1,682.6	
Billions of 1996 dollars (quarterly data seasonally adjusted at annual rates) <sup>1</sup>											
Gross Domestic Product	8,165.1	8,516.3	8,861.0	8,457.2	8,536.0	8,659.2	8,737.9	8,778.6	8,900.6	9,026.9	
Gross National Product	8,168.8	8,506.0	--	8,456.6	8,510.6	8,641.9	8,723.3	8,764.3	8,885.5	--	
Personal consumption expenditures	5,433.7	5,698.6	5,998.7	5,675.6	5,730.7	5,795.8	5,888.4	5,961.8	6,033.3	6,111.2	
Durable goods	657.4	731.5	815.1	723.9	731.2	766.0	788.8	806.1	821.2	844.5	
Nondurable goods	1,619.9	1,685.3	1,774.6	1,681.9	1,692.0	1,712.6	1,749.5	1,763.7	1,779.3	1,805.9	
Food	799.1	820.6	850.8	818.2	823.0	835.4	839.5	844.6	850.0	869.2	
Clothing and shoes	271.1	292.2	317.8	293.1	292.2	295.6	314.7	316.8	321.6	317.9	
Services	3,156.7	3,284.5	3,416.8	3,272.2	3,309.6	3,322.0	3,356.5	3,399.2	3,440.6	3,470.6	
Gross private domestic investment	1,385.8	1,547.4	1,636.2	1,513.1	1,551.1	1,593.9	1,608.2	1,599.8	1,651.6	1,685.4	
Fixed investment	1,316.0	1,471.8	1,589.4	1,466.7	1,474.0	1,522.5	1,555.9	1,581.0	1,607.3	1,613.5	
Change in private inventories	69.1	74.3	41.9	43.1	76.1	70.7	50.1	14.0	38.0	65.4	
Net exports of goods and services	-109.8	-215.1	-324.5	-218.4	-237.9	-232.3	-284.5	-319.0	-338.2	-356.1	
Government consumption expenditures and gross investment	1,455.1	1,480.3	1,534.6	1,480.7	1,485.3	1,495.9	1,514.6	1,519.5	1,536.5	1,567.7	
GDP implicit price deflator (% change)	1.7	1.2	1.5	1.3	1.5	1.0	2.0	1.4	1.1	2.0	
Disposable personal income (\$ bil.)	5,982.8	6,286.2	6,639.2	6,238.3	6,325.3	6,417.8	6,505.4	6,593.2	6,671.0	6,787.4	
Disposable pers. income (1992 \$ bil.)	5,884.7	6,125.1	6,367.4	6,087.5	6,154.6	6,226.6	6,289.3	6,339.1	6,384.8	6,456.3	
Per capita disposable pers. income (\$)	22,320	23,231	24,305	23,086	23,345	23,628	23,904	24,171	24,389	24,753	
Per capita disp. pers. income (1992 \$)	21,954	22,636	23,310	22,528	22,715	22,924	23,110	23,239	23,343	23,546	
U.S. resident population plus Armed Forces overseas (mil.) <sup>2</sup>	268.0	270.6	273.1	270.1	270.8	271.5	272.0	272.7	273.4	274.1	
Civilian population (mil.) <sup>2</sup>	266.5	269.1	271.7	268.6	269.3	270.1	270.6	271.2	271.9	272.6	
Annual19981999											
	1997	1998	1999	Dec	Jul	Aug	Sep	Oct	Nov	Dec	
Monthly data seasonally adjusted											
Total industrial production (1992=100)	130.1	136.4	142.3	138.4	142.0	142.5	142.9	144.3	145.2	145.5	
Leading economic indicators (1992=100)	103.9	105.5	107.7	106.4	108.0	108.0	107.9	108.0	108.3	108.7	
Civilian employment (mil. persons) <sup>3</sup>	129.6	131.5	133.5	132.5	133.4	133.5	133.7	133.9	134.1	134.4	
Civilian unemployment rate (%) <sup>3</sup>	4.9	4.5	4.2	4.3	4.3	4.2	4.2	4.1	4.1	4.1	
Personal income (\$ bil. annual rate)	6,951.1	7,358.9	7,791.2	7,554.5	7,806.0	7,840.0	7,848.1	7,941.3	7,972.5	7,997.9	
Money stock-M2 (daily avg.) (\$ bil.) <sup>4</sup>	4,040.8	4,397.0	4,661.1	4,397.0	4,553.6	4,572.9	4,594.2	4,612.1	4,632.2	4,661.1	
Three-month Treasury bill rate (%)	5.07	4.81	4.66	4.42	4.60	4.76	4.73	4.88	5.07	5.23	
AAA corporate bond yield (Moody's) (%)	7.26	6.53	7.04	6.22	7.19	7.40	7.39	7.55	7.36	7.55	
Total housing starts (1,000) <sup>5</sup>	1,474.0	1,616.9	1,663.0	1,750	1,680	1,655	1,637	1,642	1,598	1,712	
Business inventory/sales ratio <sup>6</sup>	1.38	1.39	--	1.37	1.34	1.33	1.33	1.33	1.33	--	
Sales of all retail stores (\$ bil.) <sup>7</sup>	2,546.3	2,696.5	--	236.5	249.5	252.8	252.8	253.5	256.9	261.3	
Nondurable goods stores (\$ bil.)	1,505.4	1,563.8	--	137.2	144.6	146.0	147.0	147.7	148.5	151.5	
Food stores (\$bil.)	432.1	443.0	--	37.4	38.3	38.5	38.7	38.9	39.3	40.5	
Apparel and accessory stores (\$ bil.)	116.8	124.2	--	10.8	11.3	11.4	11.3	11.3	11.2	11.2	
Eating and drinking places (\$ bil.)	244.1	247.1	--	23.1	23.8	23.7	24.0	24.5	24.7	24.8	

-- = Not available. 1. In October 1999, 1996 dollars replaced 1992 dollars. 2. Population estimates based on 1990 census. 3. Data beginning January 1994 are not directly comparable with data for earlier periods because of a major redesign of the household survey questionnaire. 4. Annual data as of December of year listed. 5. Private, including farm. 6. Manufacturing and trade. 7. Annual total. Information contact: David Johnson (202) 694-5324

Table 3-World Economic Growth

	Calendar year									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<i>Real GDP, annual percent change</i>										
<b>World</b>	2.1	1.4	3.1	2.8	3.5	3.2	1.8	2.6	3.3	3.1
less U.S.	1.7	1.0	2.8	2.8	3.5	2.7	1.0	2.1	3.2	3.5
<b>Developed economies</b>	1.7	0.7	2.8	2.2	3.1	2.9	2.0	2.6	2.9	2.4
less U.S.	1.0	-0.1	2.2	2.0	2.8	2.2	0.9	1.8	2.6	2.6
United States	3.3	2.4	4.0	2.7	3.7	4.5	4.3	4.0	3.6	2.1
Canada	0.9	2.3	4.7	2.8	1.7	3.9	3.1	3.8	3.5	2.5
Japan	1.0	0.3	0.7	1.4	5.2	1.6	-2.5	0.7	1.7	2.5
Australia	2.4	3.8	5.2	3.8	4.4	4.1	4.8	4.3	3.6	3.0
European Union	1.1	-0.4	2.7	2.4	1.6	2.4	2.6	2.2	3.1	2.8
<b>Transition economies</b>	-6.9	-8.6	-1.7	-0.7	-1.0	1.4	-1.3	1.5	2.3	2.9
Eastern Europe	-2.7	1.1	4.0	5.8	3.9	3.3	2.2	2.2	4.8	4.2
Poland	2.6	3.8	5.2	7.0	6.1	6.9	4.8	4.0	5.8	4.6
Former Soviet Union	-13.4	-10.0	-14.9	-5.9	-4.6	0.1	-3.8	1.0	0.5	1.9
Russia	-14.5	-8.7	-12.6	-4.1	-3.5	0.8	-4.3	1.9	0.5	1.6
<b>Developing economies</b>	5.4	5.9	5.2	5.2	5.7	4.2	1.9	2.9	4.6	5.4
<b>Asia</b>	7.7	8.0	8.8	8.3	7.4	6.0	0.4	5.9	6.3	6.4
East Asia	9.4	9.2	9.7	8.8	7.8	7.0	2.2	7.0	6.8	6.9
China	14.2	13.5	12.6	10.5	9.6	8.8	7.8	7.1	7.7	8.6
Taiwan	7.5	7.0	6.5	6.4	6.1	6.7	4.5	5.4	5.9	4.8
Korea	5.4	5.5	8.2	8.9	6.7	5.0	-5.8	9.3	6.4	5.5
Southeast Asia	5.6	7.7	7.9	8.1	7.1	4.8	-6.2	3.4	6.0	5.7
Indonesia	7.2	7.3	7.5	8.2	7.8	4.9	-13.3	0.3	8.6	6.5
Malaysia	7.8	8.3	9.2	9.5	8.6	7.8	-7.4	4.5	6.1	6.4
Philippines	0.3	2.1	4.4	4.7	5.8	5.2	-0.5	3.0	3.2	4.4
Thailand	8.1	8.4	8.9	8.8	5.5	-0.4	-10.4	4.1	6.1	6.5
South Asia	5.7	4.5	7.1	6.9	6.8	4.5	4.8	5.5	5.2	5.6
India	5.4	5.0	8.1	7.4	7.4	5.2	5.0	6.1	5.4	5.9
Pakistan	7.8	1.9	3.9	5.1	4.7	-0.4	3.7	3.0	4.0	4.5
<b>Latin America</b>	4.8	5.2	2.9	2.0	4.7	5.2	2.0	-0.6	2.9	4.3
Mexico	3.6	2.0	4.5	-6.2	5.1	6.8	4.8	3.4	3.9	4.0
Caribbean/Central	16.0	10.5	-12.1	8.3	11.4	4.9	2.6	-1.0	2.5	4.4
South America	2.9	4.9	6.1	2.7	3.2	4.9	1.3	-1.4	2.8	4.4
Argentina	9.6	5.7	8.0	-4.0	4.8	8.6	4.0	-3.4	2.7	4.6
Brazil	-0.5	4.9	5.9	4.2	2.8	3.2	0.1	0.3	2.8	4.3
Colombia	3.9	5.4	5.8	5.8	2.0	3.1	0.4	-4.4	2.9	4.5
Venezuela	6.1	0.3	-2.3	3.7	-0.5	5.1	-0.7	-7.1	1.6	1.9
<b>Middle East</b>	1.1	1.1	-1.3	2.0	1.9	-9.7	11.4	-1.0	0.5	4.2
Israel	5.6	5.6	6.9	7.0	4.6	2.2	1.9	2.3	2.6	3.5
Saudi Arabia	2.8	-0.6	0.5	0.5	1.4	1.9	1.4	-1.5	1.6	3.0
Turkey	6.4	8.7	-5.2	7.8	7.0	7.5	2.8	-4.4	5.2	9.4
<b>Africa</b>	1.1	2.7	2.5	4.9	3.3	2.5	3.2	2.9	4.5	4.0
North Africa	2.0	0.5	3.9	1.5	6.5	2.6	5.4	4.4	5.5	4.4
Egypt	4.4	2.9	3.9	4.7	5.0	5.5	5.4	6.0	5.4	4.5
Sub-Sahara	0.6	3.9	1.8	6.7	1.7	2.5	2.0	2.1	3.9	3.8
South Africa	-2.2	1.3	2.7	3.4	3.2	1.7	0.6	1.1	3.3	3.5
<i>Consumer Prices, annual percent change</i>										
Developed Economies	3.5	3.1	2.6	2.6	2.4	2.1	1.5	1.4	1.8	--
Eastern Europe	277.2	356.5	152.6	74.6	32.0	36.7	17.8	--	--	--
Developing Economies	32.8	47.3	51.8	22.1	14.6	9.2	10.3	6.7	5.8	--
Asia	7.6	10.7	15.9	12.8	8.2	4.8	8.0	3.1	3.5	--
Latin America	110.8	209.0	208.9	35.9	22.4	13.2	10.6	9.8	7.6	--
Middle East	25.1	25.3	31.4	35.6	24.2	23.1	23.6	18.3	13.1	--
Africa	32.5	30.6	37.3	33.2	25.9	11.1	8.7	9.0	6.9	--

-- = Not available. The last 3 years are either estimates or forecasts. Sources: Oxford Economic Forecasting; International Financial Statistics, IMF.  
 Information contact: Andy Jerardo (202) 694-5323

## Farm Prices

Table 4-Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1999						2000
	1997	1998	1999	Jan	Aug	Sep	Oct	Nov	Dec	Jan
1990-92=100										
<b>Prices received</b>										
All farm products	107	101	95	97	98	97	91	93	92	90
All crops	116	106	96	97	99	95	88	89	90	89
Food grains	128	103	91	102	87	88	87	89	85	86
Feed grains and hay	117	100	86	91	85	81	76	77	81	84
Cotton	112	107	85	96	87	76	76	74	71	73
Tobacco	104	104	103	111	94	101	104	105	109	109
Oil-bearing crops	131	107	83	96	78	83	80	82	82	82
Fruit and nuts, all	109	111	115	93	138	131	131	119	91	78
Commercial vegetables	122	119	110	107	105	104	96	97	116	112
Potatoes and dry beans	90	99	100	94	107	90	85	94	94	93
Livestock and products	98	97	95	96	97	98	96	98	95	93
Meat animals	92	79	83	75	85	84	87	87	88	89
Dairy products	102	119	110	133	115	121	115	109	93	91
Poultry and eggs	113	117	110	114	110	110	102	114	110	104
<b>Prices paid</b>										
Commodities and services, interest, taxes, and wage rates (PPITW)	118	115	115	115	117	116	117	117	118	118
Production items	119	113	112	111	113	112	113	113	115	115
Feed	125	110	101	104	99	98	99	99	101	103
Livestock and poultry	94	88	95	90	91	94	101	105	110	111
Seeds	119	122	121	123	121	121	121	121	121	121
Fertilizer	121	112	105	107	103	104	105	104	105	105
Agricultural chemicals	121	122	122	122	123	124	124	123	123	123
Fuels	106	84	97	69	110	116	113	119	124	127
Supplies and repairs	118	119	121	121	121	121	121	122	122	122
Autos and trucks	119	119	119	120	118	118	119	120	120	120
Farm machinery	128	132	134	134	135	132	132	133	133	133
Building material	118	118	120	118	121	120	120	120	120	121
Farm services	116	115	115	114	117	116	116	115	115	115
Rent	136	120	117	117	130	117	117	117	117	117
Interest payable per acre on farm real estate debt	105	104	105	105	105	105	105	105	105	108
Taxes payable per acre on farm real estate	115	119	120	120	120	120	120	120	120	123
Wage rates (seasonally adjusted)	123	129	135	137	131	131	135	135	135	135
Prod. items, interest, taxes & wage rates (PITW)	118	114	114	113	115	114	115	115	116	117
Ratio, prices received to prices paid (%)*	91	88	82	84	84	84	78	79	78	76
Prices received (1910-14=100)	679	643	607	615	625	613	578	591	585	574
Prices paid, etc. (parity index) (1910-14=100)	1,574	1,532	1,537	1,526	1,551	1,541	1,553	1,558	1,566	1,574
Parity ratio (1910-14=100) (%)*	43	42	39	40	40	40	37	38	37	36

-- = Not available. Values for the two most recent months are revised or preliminary. \*Ratio of index of prices received for all farm products to index of prices paid for commodities and services, interest, taxes, and wage rates. Ratio uses the most recent prices paid index. Data for this table are taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at <http://usda.mannlib.cornell.edu/reports/nassr/price/pap-bb/>. For historical data or for categories not listed here, call the National Agricultural Statistics Service (NASS) Information Hotline at 1-800-727-9540, or access the NASS Home Page at <http://www.usda.gov/nass>.

Table 5-Prices Received by Farmers, U.S. Average

	Annual <sup>1</sup>			1999						2000
	1996	1997	1998	Jan	Aug	Sep	Oct	Nov	Dec	Jan
<b>Crops</b>										
All wheat (\$/bu.)	4.30	3.38	2.70	2.84	2.52	2.57	2.58	2.66	2.52	2.52
Rice, rough (\$/cwt)	9.96	9.70	8.50	9.09	7.62	6.88	6.23	6.11	6.19	6.27
Corn (\$/bu.)	2.71	2.43	1.95	2.06	1.75	1.75	1.69	1.70	1.82	1.90
Sorghum (\$/cwt)	4.17	3.95	3.10	3.05	2.89	2.82	2.51	2.58	2.65	2.93
All hay, baled (\$/ton)	95.80	100.00	87.00	78.50	77.40	74.50	73.70	74.00	71.10	71.80
Soybeans (\$/bu.)	7.35	6.47	5.35	5.32	4.39	4.57	4.47	4.45	4.44	4.59
Cotton, upland (¢/lb.)	69.30	65.20	64.20	58.10	53.00	46.20	45.90	44.70	43.00	44.40
Potatoes (\$/cwt)	4.93	5.62	5.24	5.32	6.33	5.15	4.84	5.51	5.58	5.64
Lettuce (\$/cwt) <sup>2</sup>	14.70	17.60	15.20	10.30	11.90	13.00	13.00	10.50	16.10	18.70
Tomatoes, fresh (\$/cwt) <sup>2</sup>	28.10	31.70	35.00	39.90	22.70	26.90	21.40	26.60	31.40	23.20
Onions (\$/cwt)	10.50	12.60	13.80	16.70	15.40	12.30	8.92	8.30	7.88	6.35
Beans, dry edible (\$/cwt)	23.50	19.30	19.80	19.70	18.80	18.10	17.20	17.30	17.00	15.60
Apples for fresh use (¢/lb.)	20.80	22.10	17.10	15.80	18.40	23.20	23.50	23.30	23.70	23.50
Pears for fresh use (\$/ton)	376.00	276.00	291.00	373.00	341.00	388.00	441.00	461.00	414.00	414.00
Oranges, all uses (\$/box) <sup>3</sup>	4.79	4.22	4.29	4.98	11.48	7.98	10.25	4.33	3.41	3.27
Grapefruit, all uses (\$/box) <sup>3</sup>	2.30	1.91	1.41	2.48	7.45	8.18	6.80	5.21	3.71	2.40
<b>Livestock</b>										
Cattle, all beef (\$/cwt)	58.70	63.10	59.60	59.00	63.50	63.90	66.20	66.20	66.60	66.60
Calves (\$/cwt)	58.40	78.90	78.80	83.20	89.60	90.90	91.90	93.00	98.60	102.00
Hogs, all (\$/cwt)	51.90	52.90	34.40	26.30	36.20	33.70	34.00	33.40	35.60	36.30
Lambs (\$/cwt)	88.20	90.30	72.30	68.20	68.90	75.30	72.60	76.30	77.60	--
All milk, sold to plants (\$/cwt)	14.75	13.36	15.41	17.40	15.00	15.80	15.00	14.30	12.20	11.90
Milk, manuf. grade (\$/cwt)	13.43	12.17	14.33	15.30	15.20	15.20	12.60	11.00	10.70	10.70
Broilers, live (¢/lb.)	38.10	37.70	39.30	37.90	36.20	36.50	33.50	37.40	36.80	35.00
Eggs, all (¢/doz.) <sup>4</sup>	74.90	70.30	65.50	71.90	59.00	56.70	50.10	64.30	61.30	58.00
Turkeys (¢/lb.)	43.30	39.90	38.00	34.80	43.10	44.50	45.40	45.60	42.20	36.40

-- = Not available. Values for the two most recent months are revised or preliminary. 1. Season-average price by crop year for crops. Calendar year average of monthly prices for livestock. 2. Excludes Hawaii. 3. Equivalent on-tree returns. 4. Average of all eggs sold by producers including hatching eggs and eggs sold at retail. Data for this table are taken from the publication *Agricultural Prices*, which is produced monthly by USDA's National Agricultural Statistics Service (NASS) and is available at <http://usda.mannlib.cornell.edu/reports/nassr/price/pap-bb/>. For historical data or for categories not listed here, call the National Agricultural Statistics Service (NASS) Information Hotline at 1-800-727-9540, or access the NASS Home Page at <http://www.usda.gov/nass>.



## Producer & Consumer Prices

**Table 6-Consumer Price Indexes for All Urban Consumers, U.S. Average (not seasonally adjusted)**

	Annual			1999						2000
	1997	1998	1999	Jan	Aug	Sep	Oct	Nov	Dec	Jan
<i>1982-84=100</i>										
Consumer Price Index, all items	160.5	163.0	166.6	164.3	167.1	167.9	168.2	168.3	168.3	168.7
CPI, all items less food	161.1	163.6	167.0	164.5	167.7	168.5	168.8	168.8	168.8	169.2
All food	157.3	160.7	164.1	163.6	164.2	164.6	165.1	165.2	165.4	166.1
Food away from home	157.0	161.1	165.1	163.5	165.6	165.8	166.2	166.5	166.8	137.2
Food at home	158.1	161.1	164.2	164.3	164.1	164.5	165.1	165.1	165.4	166.3
Meats <sup>1</sup>	144.4	141.6	142.3	139.4	142.8	143.9	144.4	145.3	145.3	144.7
Beef and veal	136.8	136.5	139.2	136.0	138.8	140.3	141.6	142.2	143.1	143.2
Pork	155.9	148.5	145.9	141.9	147.6	149.7	148.1	149.3	148.6	147.8
Poultry	156.6	157.1	157.9	158.5	158.5	159.8	158.1	159.4	157.5	159.9
Fish and seafood	177.1	181.7	185.3	183.6	185.2	184.7	187.3	187.9	186.9	186.0
Eggs	140.0	135.4	128.1	137.8	130.8	128.2	119.8	128.8	124.0	133.9
Dairy and related products <sup>2</sup>	145.5	150.8	159.6	161.2	156.5	158.7	164.1	164.6	162.1	160.4
Fats and oils <sup>3</sup>	141.7	146.9	148.3	150.5	148.6	148.5	149.0	145.3	145.1	147.0
Fresh fruits	236.3	246.5	266.3	267.4	266.2	265.8	262.3	260.5	266.9	266.6
Fresh vegetables	194.6	215.8	209.3	224.5	204.8	208.0	208.9	209.1	214.0	223.0
Potatoes	174.2	185.2	193.1	184.5	212.1	204.6	194.8	186.1	190.7	196.6
Cereals and bakery products	177.6	181.1	185.0	184.2	184.9	185.2	185.2	184.8	185.9	185.6
Sugar and sweets	147.8	150.2	152.3	151.7	152.7	153.5	153.3	152.1	152.3	154.8
Nonalcoholic beverages <sup>4</sup>	133.4	133.0	134.3	133.5	134.5	134.2	134.6	133.9	134.7	137.1
Apparel										
Footwear	127.6	128.0	125.7	125.6	123.8	124.7	126.1	126.4	123.7	121.6
Tobacco and smoking products	243.7	274.8	355.8	354.2	350.1	373.8	373.3	369.8	369.1	375.1
Alcoholic beverages	162.8	165.7	169.7	167.6	170.2	170.7	170.5	171.2	171.8	172.4

1. Beef, veal, lamb, pork, and processed meat. 2. Included butter through December '97. 3. Includes butter as of January 98. 4. Includes fruit juices as of January 1998. This table is compiled with data provided by the Bureau of Labor Statistics (BLS). BLS operates a website at <http://stats.bls.gov/bls/home.html> and a Consumer Prices Information Hotline at (202) 606-7828.

Table 7-Producer Price Indexes, U.S. Average (not seasonally adjusted)

	Annual			1999						2000
	1996	1997	1998	Jan	Aug	Sep	Oct	Nov	Dec	Jan
1982=100										
All commodities	127.7	127.6	124.4	122.9	126.9	128.0	127.9	128.4	128.0	128.3
Finished goods <sup>1</sup>	131.3	131.8	130.6	131.4	133.7	134.7	135.0	135.0	135.0	134.7
All foods <sup>2</sup>	132.5	132.8	132.4	133.6	132.8	134.0	132.9	132.3	131.9	131.2
Consumer foods	133.6	134.5	134.3	135.6	135.9	136.7	135.6	135.4	135.7	135.0
Fresh fruits and melons	100.8	99.4	90.0	105.3	98.2	106.3	107.2	93.0	93.6	91.7
Fresh and dry vegetables	135.0	123.1	139.5	124.4	111.0	120.4	108.1	108.8	143.9	115.3
Dried and dehydrated fruits	124.2	124.9	124.4	122.6	120.5	119.7	119.1	119.3	135.0	123.3
Canned fruits and juices	137.5	137.6	134.4	136.8	137.9	138.1	137.7	137.9	138.8	140.3
Frozen fruits, juices and ades	123.9	117.2	116.1	125.1	119.8	120.4	120.1	126.2	127.1	124.0
Fresh veg. except potatoes	120.9	121.3	137.9	131.9	113.7	117.5	100.0	100.9	151.6	111.3
Canned vegetables and juices	121.2	120.1	121.5	120.6	120.9	120.7	120.7	121.6	121.4	121.4
Frozen vegetables	125.4	125.8	125.4	125.8	126.1	126.0	126.4	126.1	125.3	125.5
Potatoes	133.9	106.1	122.5	132.3	151.3	116.4	108.8	110.8	107.7	109.0
Eggs for fresh use (1991=100)	105.1	97.1	90.1	94.0	82.7	75.7	61.5	85.8	74.7	81.1
Bakery products	169.8	173.9	175.8	177.1	177.9	178.0	178.4	178.8	179.4	179.5
Meats	109.0	111.6	101.4	99.1	108.4	109.2	108.4	105.8	108.8	109.8
Beef and veal	100.2	102.8	99.5	99.1	110.2	110.2	112.0	108.5	109.5	111.1
Pork	120.9	123.1	96.6	90.9	102.1	104.7	99.3	95.8	104.2	103.9
Processed poultry	119.8	117.4	120.7	115.7	113.7	115.1	111.7	115.1	114.5	111.9
Unprocessed and packaged fish	165.9	178.1	183.0	186.2	189.0	193.6	195.9	197.7	190.5	194.9
Dairy products	130.4	128.1	138.1	148.9	139.9	142.9	144.1	142.5	132.7	130.9
Processed fruits and vegetables	127.6	126.4	125.8	128.0	127.7	127.8	127.3	128.5	129.6	129.0
Shortening and cooking oil	138.5	137.8	143.4	--	--	--	--	--	--	--
Soft drinks	134.0	133.2	134.8	135.5	138.5	138.7	138.7	139.3	139.3	139.6
Finished consumer goods less foods	127.6	128.2	126.4	127.1	131.9	133.5	133.7	133.9	133.7	133.3
Alcoholic beverages	132.8	135.1	135.2	136.8	136.6	136.8	137.7	137.8	136.4	136.6
Apparel	125.1	125.7	126.6	127.3	127.0	127.0	126.3	126.5	127.0	126.9
Footwear	141.6	143.7	144.7	143.8	144.6	144.6	144.7	144.7	144.9	145.0
Tobacco products	237.4	248.9	283.4	363.4	363.9	394.6	394.5	394.8	395.3	378.5
Intermediate materials <sup>3</sup>	125.8	125.6	123.0	120.9	124.6	125.3	125.2	125.4	125.6	125.9
Materials for food manufacturing	125.3	123.2	123.1	124.3	121.1	122.0	122.4	121.4	118.5	117.9
Flour	136.8	118.7	109.2	107.4	106.1	103.8	102.3	103.9	99.2	101.8
Refined sugar <sup>4</sup>	123.7	123.6	119.8	118.9	122.0	121.4	121.1	120.2	118.0	116.5
Crude vegetable oils	118.1	116.6	131.1	117.4	85.2	84.6	81.7	81.4	79.3	76.1
Crude materials <sup>5</sup>	113.8	111.1	96.7	90.1	103.1	107.3	104.9	108.6	103.9	106.3
Foodstuffs and feedstuffs	121.5	112.2	103.8	101.2	100.1	100.1	99.6	99.5	96.8	96.4
Fruits and vegetables and nuts <sup>6</sup>	122.5	115.5	117.2	121.6	112.1	120.5	115.2	104.8	118.8	106.8
Grains	151.1	111.2	93.4	87.0	80.9	75.9	72.7	77.3	74.0	77.8
Slaughter livestock	95.2	96.3	82.3	79.3	88.6	86.7	90.9	89.6	91.9	91.6
Slaughter poultry, live	140.5	131.0	141.4	129.5	126.3	132.6	122.7	137.7	130.7	122.2
Plant and animal fibers	129.4	117.0	110.4	93.5	82.7	80.0	80.8	79.4	77.3	83.9
Fluid milk	107.9	97.5	112.6	127.8	112.6	117.4	114.6	104.5	90.6	89.5
Oilseeds	139.4	140.8	114.4	103.2	88.8	90.0	88.4	87.4	87.4	90.0
Leaf tobacco	89.4	--	104.6	112.4	96.4	102.9	109.6	104.1	112.0	111.7
Raw cane sugar	118.6	116.8	117.2	118.7	115.2	109.9	109.6	99.8	97.0	96.8

-- = Not available. 1. Commodities ready for sale to ultimate consumer. 2. Includes all raw, intermediate, and processed foods (excludes soft drinks, alcoholic beverages, and manufactured animal feeds). 3. Commodities requiring further processing to become finished goods. 4. All types and sizes of refined sugar. 5. Products entering market for the first time that have not been manufactured at that point. 6. Fresh and dried.

This table is compiled with data provided by the Bureau of Labor Statistics (BLS). BLS operates a website at <http://stats.bls.gov/blshome.html> and a Producer Prices Information Hotline at (202) 606-7705.

## Farm-Retail Price Spreads

Table 8-Farm-Retail Price Spreads

	Annual			1998		1999				
	1996	1997	1998	Dec	Jul	Aug	Sep	Oct	Nov	Dec
Market basket <sup>1</sup>										
Retail cost (1982-84=100)	155.9	159.7	163.1	165.6	166.6	167.1	167.7	168.3	168.4	168.7
Farm value (1982-84=100)	111.1	106.2	103.3	101.4	96.9	98.7	99.2	97.1	99.2	95.2
Farm-retail spread (1982-84=100)	180.1	188.6	195.4	200.2	204.1	203.9	204.6	206.7	205.7	208.3
Farm value-retail cost (%)	24.9	23.3	22.2	21.5	20.4	20.7	20.7	20.2	20.6	19.8
Meat products										
Retail cost (1982-84=100)	140.1	144.4	141.6	140.2	142.2	142.8	143.9	144.4	145.3	145.3
Farm value (1982-84=100)	100.4	101.2	84.8	70.7	82.9	83.8	84.7	85.1	85.4	85.7
Farm-retail spread (1982-84=100)	180.9	188.6	200.0	211.5	203.1	203.3	204.6	205.3	206.7	206.5
Farm value-retail cost (%)	36.3	35.5	30.3	25.5	29.5	29.7	29.8	29.8	29.8	29.9
Dairy products										
Retail cost (1982-84=100)	142.1	145.5	150.8	157.6	155.7	156.5	158.7	164.1	164.6	162.1
Farm value (1982-84=100)	107.2	98.0	113.0	127.1	99.2	107.4	112.3	115.5	112.9	92.8
Farm-retail spread (1982-84=100)	174.3	189.3	185.6	185.7	207.8	201.8	201.4	208.9	212.2	226.0
Farm value-retail cost (%)	36.2	32.3	36.0	38.7	30.6	32.5	34.0	33.8	32.9	27.5
Poultry										
Retail cost (1982-84=100)	152.4	156.6	157.1	159.3	157.3	158.5	159.8	158.1	159.4	157.5
Farm value (1982-84=100)	126.2	120.6	126.1	125.6	123.5	119.0	120.5	112.8	123.4	120.2
Farm-retail spread (1982-84=100)	182.6	198.1	192.9	198.1	196.2	204.0	205.1	210.3	200.8	200.5
Farm value-retail cost (%)	44.3	41.2	42.9	42.2	42.0	40.2	40.3	38.2	41.4	40.8
Eggs										
Retail cost (1982-84=100)	142.1	140.0	137.1	142.9	119.5	130.8	128.2	119.8	128.8	124.0
Farm value (1982-84=100)	114.7	99.3	89.6	108.1	68.6	72.2	68.2	55.2	84.2	74.4
Farm-retail spread (1982-84=100)	191.4	213.0	222.5	205.4	211.0	236.1	235.9	235.9	208.9	213.0
Farm value-retail cost (%)	51.9	45.6	42.0	48.6	36.9	35.5	34.2	29.6	42.0	38.6
Cereal and bakery products										
Retail cost (1982-84=100)	174.0	177.6	181.1	182.3	186.3	184.9	185.2	185.2	184.8	185.9
Farm value (1982-84=100)	125.6	107.7	94.4	95.0	78.2	81.8	80.6	77.1	77.7	75.1
Farm-retail spread (1982-84=100)	180.7	187.4	193.2	194.5	201.4	199.3	199.8	200.3	199.7	201.4
Farm value-retail cost (%)	7.2	7.4	6.4	6.4	5.1	5.4	5.3	5.1	5.1	4.9
Fresh fruit										
Retail cost (1982-84=100)	243.0	245.1	258.2	283.5	292.7	294.2	294.5	290.7	287.8	294.8
Farm value (1982-84=100)	151.7	137.0	141.3	138.5	145.5	157.1	158.4	148.0	146.9	144.2
Farm-retail spread (1982-84=100)	285.2	295.0	312.2	350.4	360.7	357.5	357.3	356.6	352.8	364.3
Farm value-retail cost (%)	19.7	17.7	17.3	15.4	15.7	16.9	17.0	16.1	16.1	15.5
Fresh vegetables										
Retail cost (1982-84=100)	189.2	194.6	215.8	212.3	206.0	204.8	208.0	208.9	209.1	214.0
Farm value (1982-84=100)	113.3	118.7	124.5	120.6	122.4	113.5	102.5	88.9	104.4	121.1
Farm-retail spread (1982-84=100)	228.3	233.6	262.7	259.4	249.0	251.7	262.3	270.6	262.9	261.8
Farm value-retail cost (%)	20.3	20.7	19.6	19.3	20.2	18.8	16.7	14.5	17.0	19.2
Processed fruits and vegetables										
Retail cost (1982-84=100)	144.4	147.9	150.6	150.4	156.4	156.5	154.9	156.3	154.7	154.7
Farm value (1982-84=100)	121.5	115.9	115.1	116.0	114.5	114.5	113.6	112.6	111.2	111.7
Farm-retail spread (1982-84=100)	151.6	157.9	161.7	161.1	169.5	169.6	167.8	169.9	168.3	168.1
Farm value-retail cost (%)	20.0	18.6	18.2	18.3	17.4	17.4	17.4	17.1	17.1	17.2
Fats and oils										
Retail cost (1982-84=100)	140.5	141.7	146.9	151.9	148.1	148.6	148.5	149.0	145.3	145.1
Farm value (1982-84=100)	112.3	109.4	118.9	111.5	81.2	80.8	83.0	82.1	79.4	78.2
Farm-retail spread (1982-84=100)	150.9	153.6	157.2	166.8	172.7	173.5	172.6	173.6	169.5	169.7
Farm value-retail cost (%)	21.5	20.8	21.8	19.7	13.7	14.6	15.0	14.8	14.7	14.5

See footnotes at end of table, next page.

Table 8-Farm-Retail Price Spreads (continued)

	Annual			1999						2000
	1997	1998	1999	Jan	Aug	Sep	Oct	Nov	Dec	Jan
Beef, all fresh retail value (cts/lb)	253.8	253.3	260.5	256.5	258.1	260.5	269.7	263.5	265.5	265.7
Beef, Choice										
Retail value (cents/lb.) <sup>2</sup>	279.5	277.1	287.8	279.1	289.0	289.4	295.4	300	301.8	294.7
Wholesale value (cents) <sup>3</sup>	158.2	153.8	171.6	156.3	175.8	177.3	183.1	180.5	181.8	177.5
Net farm value (cents) <sup>4</sup>	137.2	137.2	130.8	130.1	132.8	139.9	141.1	139.6	142.1	138.7
Farm-retail spread (cents)	142.3	139.9	157	149.0	156.2	149.5	154.3	160.4	159.7	156
Wholesale-retail (cents) <sup>5</sup>	121.3	123.3	116.2	122.8	113.2	112.1	112.3	119.5	120	117.2
Farm-wholesale (cents) <sup>6</sup>	21.0	16.6	40.8	26.2	43	37.4	42.0	40.9	39.7	38.8
Farm value-retail value (%)	49	47	49	46.6	48.6	48.7	50.3	49.9	49	49.5
Pork										
Retail value (cents/lb.) <sup>2</sup>	245.0	242.7	241.5	233.4	246.8	248.1	244.7	244.7	246.1	245.7
Wholesale value (cents) <sup>3</sup>	123.1	97.3	99	95.6	107.7	105	99.5	97.7	103.6	104.6
Net farm value (cents) <sup>4</sup>	95.3	61.2	60.4	50.7	68.8	63.7	63.2	62.4	66.8	68.0
Farm-retail spread (cents)	149.7	181.5	181.1	182.7	178	184.4	181.5	182.3	179.3	177.7
Wholesale-retail (cents) <sup>5</sup>	121.9	145.4	142.5	137.8	139.1	143.1	145.2	147	142.5	141.1
Farm-wholesale (cents) <sup>6</sup>	27.8	36.1	38.6	44.9	38.9	41.3	36.3	35.3	36.8	36.6
Farm value-retail value (%)	39	25	25	21.7	27.9	25.7	25.8	25.5	27.1	27.7

1. Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by the Bureau of Labor Statistics (BLS). Farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for by-product. Farm values are based on prices at first point of sale, and may include marketing charges such as grading and packing for some commodities. The farm-retail spread, the difference between the retail value and farm value, represents charges for assembling, processing, transporting and distributing. 2. Weighted-average value of retail cuts from pork and Choice yield grade 3 beef. Prices from BLS. 3. Value of wholesale (boxed beef) and wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs and by-product values. 4. Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of by-products. 5. Charges for retailing and other marketing services such as wholesaling and in-city transportation. 6. Charges for livestock marketing, processing, and transportation. *Information contact: Veronica Jones (202) 694-5387, William F. Hahn (202) 694-5175*

Table 9-Price Indexes of Food Marketing Costs

	Annual			1998				1999		
	1996	1997	1998	I	II	III	IV	I	II	III
1987=100*										
Labor—hourly earnings and benefits	459.7	474.3	490.4	484.9	488.3	493.0	494.6	497.8	502.5	503.4
Processing	474.7	486.0	499.3	493.8	497.7	500.7	504.9	504.6	513.0	513.7
Wholesaling	516.0	536.2	552.5	546.8	552.5	555.4	555.1	556.9	562.3	566.4
Retailing	419.9	435.2	454.1	448.7	450.6	457.8	459.4	464.9	465.6	465.3
Packaging and containers	399.8	390.3	395.5	398.5	396.7	394.9	391.9	390.3	396.4	403.0
Paperboard boxes and containers	363.8	341.9	365.2	365.4	368.7	366.8	359.8	355.7	368.3	380.2
Metal cans	498.3	491.0	487.9	494.1	484.7	486.0	486.6	486.6	486.6	486.6
Paper bags and related products	437.8	441.9	432.9	438.8	434.0	430.2	428.5	425.6	435.7	446.3
Plastic films and bottles	326.5	326.6	322.8	326.7	325.0	321.0	318.5	319.7	321.4	325.9
Glass containers	460.5	447.4	446.8	446.9	446.9	446.1	447.3	447.8	447.8	447.0
Metal foil	235.7	233.4	232.0	231.8	232.6	232.6	230.9	228.2	226.1	226.7
Transportation services	429.8	430.0	428.3	429.9	431.8	426.3	425.0	403.9	393.7	394.2
Advertising	580.1	609.4	624.5	623.2	624.2	624.5	626.2	634.1	635.3	636.9
Fuel and power	670.7	668.5	619.7	625.1	622.9	629.2	601.6	586.6	627.3	681.1
Electric	501.3	499.2	492.1	482.2	489.3	511.8	485.0	479.0	484.0	505.9
Petroleum	666.8	616.7	457.0	495.5	470.0	439.2	423.3	388.4	504.0	613.2
Natural gas	1,136.7	1,214.0	1,239.4	1,229.4	1,242.1	1,268.5	1,217.7	1,206.3	1,222.8	1,272.7
Communications, water and sewage	296.8	302.8	307.6	305.5	308.0	308.5	308.5	309.3	308.5	308.9
Rent	268.2	265.6	260.5	262.5	260.4	260.4	258.8	257.5	257.5	256.2
Maintenance and repair	499.6	514.9	529.3	524.1	527.1	531.1	535.1	537.9	540.7	542.5
Business services	501.7	512.3	522.9	518.4	521.2	521.8	530.3	527.7	528.7	533.3
Supplies	338.3	337.8	332.3	335.6	332.4	331.4	329.5	326.6	326.4	326.7
Property taxes and insurance	564.3	580.1	598.3	591.1	595.4	600.7	606.1	609.6	615.2	622.8
Interest, short-term	103.9	108.9	103.7	106.5	106.7	105.6	96.0	93.2	96.7	109.7
Total marketing cost index	452.1	459.9	467.2	465.3	466.9	468.6	468.0	466.5	470.9	475.6

Last two quarters preliminary. \* Indexes measure changes in employee earnings and benefits and in prices of supplies used in processing, wholesaling, and retailing U.S. farm foods purchased for at-home consumption. *Information contact: Veronica Jones (202) 694-5387*



## Livestock & Products

Table 10-U.S. Meat Supply & Use

	Beg. stocks	Production <sup>1</sup>	Imports	Total supply	Exports	Ending stocks	Consumption		Conversion factor <sup>3</sup>	Primary market price <sup>4</sup>
							Total	Per capita <sup>2</sup>		
				million lbs. <sup>5</sup>				lbs.		\$/cwt
<b>Beef</b>										
1996	519	25,419	2,073	28,117	1,877	377	25,863	68	0.700	65.06
1997	377	25,384	2,343	28,210	2,136	465	25,609	67	0.700	66.32
1998	465	25,653	2,642	28,867	2,171	393	26,303	68	0.700	61.48
1999	393	26,390	2,877	29,766	2,374	411	26,981	69	0.700	66
2000	411	25,700	3,015	29,232	2,325	365	26,542	68	0.700	67-71
<b>Pork</b>										
1996	396	17,117	618	18,131	970	366	16,795	49	0.776	56.53
1997	366	17,274	633	18,273	1,044	408	16,821	49	0.776	54.30
1998	408	19,011	704	20,123	1,229	586	18,308	53	0.776	34.72
1999	586	19,308	822	20,716	1,272	489	18,955	54	0.776	34
2000	489	18,630	800	19,919	1,200	500	18,219	51	0.776	39-41
<b>Veal<sup>6</sup></b>										
1996	7	378	0	385	0	7	378	1	0.83	59
1997	7	334	0	341	0	8	333	1	0.83	82
1998	8	262	0	270	0	5	265	1	0.83	82
1999	5	237	0	242	0	5	237	1	0.83	90
2000	5	222	0	227	0	4	223	1	0.83	98
<b>Lamb and mutton</b>										
1996	8	268	73	349	6	9	334	1	0.89	85
1997	9	260	83	352	5	14	333	1	0.89	88
1998	14	251	112	377	6	12	359	1	0.89	74
1999	12	247	108	367	6	9	352	1	0.89	76
2000	9	215	114	338	6	10	322	1	0.89	77
<b>Total red meat</b>										
1996	930	43,288	2,764	46,982	2,853	759	43,370	120	--	--
1997	759	43,358	3,059	47,176	3,185	895	43,096	118	--	--
1998	895	45,284	3,458	49,637	3,406	996	45,235	123	--	--
1999	996	46,288	3,807	51,091	3,652	914	46,525	125	--	--
2000	914	44,873	3,929	49,716	3,531	879	45,306	121	--	--
<b>Broilers</b>										
1996	560	26,124	4	26,688	4,420	641	21,626	70	0.859	61
1997	641	27,041	5	27,687	4,664	607	22,416	72	0.859	59
1998	607	27,612	5	28,225	4,673	711	22,841	73	0.859	63
1999	711	29,415	4	30,130	4,706	795	24,628	78	0.859	58
2000	795	30,858	4	31,657	4,825	890	25,942	81	0.869	57
<b>Mature chickens</b>										
1996	7	491	0	498	265	6	228	1	1.0	--
1997	6	510	0	516	384	7	125	1	1.0	--
1998	7	525	0	533	426	6	101	1	1.0	--
1999	6	553	0	561	406	8	147	1	1.0	--
2000	8	567	0	575	415	5	155	1	1.0	--
<b>Turkeys</b>										
1996	271	5,401	1	5,673	438	328	4,906	19	1.0	66
1997	328	5,412	1	5,741	606	415	4,720	18	1.0	65
1998	415	5,215	0	5,630	446	304	4,880	18	1.0	62
1999	304	5,230	0	5,534	371	252	4,911	18	1.0	69
2000	252	5,332	0	5,584	390	250	4,944	18	1.0	68
<b>Total poultry</b>										
1996	839	32,015	5	32,859	5,123	975	26,760	90	--	--
1997	975	32,964	6	33,944	5,654	1,029	27,261	90	--	--
1998	1,029	33,352	6	34,387	5,545	1,022	27,821	91	--	--
1999	1,022	35,197	6	36,225	5,483	1,055	29,686	96	--	--
2000	1,055	36,756	4	37,815	5,630	1,145	31,040	100	--	--
<b>Red meat and poultry</b>										
1996	1,769	75,303	2,769	79,841	7,976	1,734	70,130	209	--	--
1997	1,734	76,322	3,065	81,120	8,839	1,924	70,357	208	--	--
1998	1,924	78,636	3,464	84,024	8,950	2,018	73,057	214	--	--
1999	2,018	81,485	3,813	87,316	9,135	1,969	76,212	221	--	--
2000	1,969	81,629	3,933	87,531	9,161	2,024	76,347	220	--	--

-- = Not available. Values for the last 2 years are forecasts. 1. Total including farm production for red meat and federally inspected plus nonfederally inspected for poultry. 2. Retail-weight basis. 3. Red meat, carcass to retail conversion; poultry, ready-to-cook production to retail weight. 4. Beef: Medium #1, Nebraska Direct 1,100-1,300 lb.; pork: barrows and gilts, 51-52 percent lean National Base converted to live equal; veal: farm price of calves; lamb and mutton: choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-16 lb. young hens. 5. Carcass weight for red meats and certified ready-to-cook for poultry. 6. Beginning in 1989, veal trade is no longer reported separately. Information contact: LaVerne Williams (202) 694-5190

Table 11-U.S. Egg Supply &amp; Use

	Beg. stocks	Production	Imports	Total supply	Exports	Hatching use	Ending stocks	Consumption		Primary market price*
								Total	Per capita	
	Million doz.							No.	¢/doz.	
1993	13.5	6,005.8	4.7	6,023.9	158.9	769.6	10.7	5,084.6	236.4	72.5
1994	10.7	6,177.6	3.7	6,192.0	187.6	805.4	14.9	5,184.1	238.7	67.3
1995	14.9	6,215.6	4.1	6,234.6	208.9	847.2	11.2	5,167.3	235.6	72.9
1996	11.2	6,350.7	5.4	6,367.3	253.1	863.8	8.5	5,241.8	236.8	88.2
1997	8.5	6,473.1	6.9	6,488.5	227.8	894.7	7.4	5,358.6	240.1	81.2
1998	7.4	6,657.9	5.8	6,671.2	218.8	921.8	8.4	5,522.0	244.9	75.8
1999	8.4	6,911.0	7.4	6,926.8	158.9	941.3	7.7	5,818.9	255.7	65.6
2000	7.7	7,080.0	4.0	7,091.7	160.0	1,000.0	5.0	5,926.7	258.4	60.8

Values for the last year are forecasts. Values for previous year are preliminary. \* Cartoned grade A large eggs, New York.

Information contact: LaVerne Williams (202) 694-5190

Table 12-U.S. Milk Supply & Use <sup>1</sup>

	Production	Commercial			Total commer- cial supply	CCC net re- movals	Commercial			CCC net removals		
		Farm use	Farm Market- ings	Beg. stocks			Imports	Ending stocks	Disap- pear- ance	All milk price <sup>1</sup>	Skim solids basis	Total solid basis <sup>2</sup>
Million lbs. (milkfat basis)										\$/cwt	Billion lbs.	
1992	150.9	1.9	149.0	4.5	2.5	155.9	9.9	4.7	141.3	13.09	2.0	5.2
1993	150.6	1.8	148.8	4.7	2.8	156.3	6.6	4.5	145.1	12.80	3.9	5.0
1994	153.6	1.7	151.9	4.5	2.9	159.3	4.8	4.3	150.3	12.97	3.7	4.2
1995	155.3	1.6	153.7	4.3	2.9	160.9	2.1	4.1	154.9	12.74	4.4	3.5
1996	154.0	1.5	153.5	4.1	2.9	159.5	0.1	4.7	154.7	14.74	0.7	0.5
1997	156.1	1.4	154.7	4.7	2.7	162.1	1.1	4.9	156.1	13.34	3.7	2.7
1998	157.4	1.4	156.1	4.9	4.6	165.5	0.4	5.3	159.9	15.42	4.0	2.6
1999	162.7	1.3	161.4	5.3	4.7	170.8	0.3	6.1	165.0	14.38	6.5	4.0
2000	165.5	1.3	164.2	6.1	3.9	173.5	0.5	5.6	168.1	12.55	6.0	3.8

Values for latest year are forecasts. Values for the preceding year are preliminary. 1. Delivered to plants and dealers; does not reflect deductions.

2. Arbitrarily weighted average of milkfat basis (40 percent) and solids basis (60 percent). Information contact: Jim Miller (202) 694-5184

Table 13-Poultry &amp; Eggs

	Annual			1998		1999					
	1996	1997	1998	Dec	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Broilers</b>											
Federally inspected slaughter certified (mil. lb.)	26,336.3	27,270.7	27,862.7	2,395.3	2,471.4	2,516.4	2,497.9	2,466.6	2,404.3	2,434.1	
Wholesale price, 12-city (cents/lb.)	61.2	58.8	63.1	60.4	59.5	57.6	57.1	54.9	59.5	58.4	
Price of grower feed (\$/ton) <sup>1</sup>	175.1	157.7	128.7	116.4	95.3	96.5	100.0	97.1	95.8	96	
Broiler-feed price ratio <sup>2</sup>	4.4	4.7	6.3	6.7	8.0	7.5	7.3	6.9	7.7	7.7	
Stocks beginning of period (mil. lb.)	560.1	641.3	606.8	657.8	831.2	929.4	835.3	885.1	811.1	780.5	
Broiler-type chicks hatched (mil.)	8,078.2	8,321.6	8,495.1	737.8	750.5	741.3	699.7	697.8	673.7	747.9	
<b>Turkeys</b>											
Federally inspected slaughter certified (mil. lb.)	5,465.6	5,477.9	5,280.6	431.1	438.2	468.8	454.9	472.3	490.0	430.2	
Wholesale price, Eastern U.S. 8-16 lb. young hens (cents/lb.)	66.5	64.9	62.2	69.0	71.6	73.6	76.3	79.3	79.0	72.4	
Price of turkey grower feed (\$/ton) <sup>1</sup>	165.8	142.7	115.7	106.1	86.2	90.7	92.7	90.8	79.9	89	
Turkey-feed price ratio <sup>2</sup>	5.3	5.6	6.7	7.6	9.7	9.5	9.6	10.0	10.0	9.5	
Stocks beginning of period (mil. lb.)	271.3	328.0	415.1	310.4	556.1	599.0	580.3	596.4	494.5	249.5	
Poults placed in U.S. (mil.)	327.2	321.5	297.8	25.0	26.8	24.8	21.8	22.3	23.5	25.5	
<b>Eggs</b>											
Farm production (mil.)	76,532	77,677	79,905	7,047	6,903	6,970	6,860	7,126	7,016	7,274	
Average number of layers (mil.)	299	304	313	322	320	320	322	325	329	329	
Rate of lay (eggs per layer on farms)	256.2	255.3	255.4	21.9	21.6	21.8	21.3	21.9	21.4	22.1	
Cartoned price, New York, grade A large (cents/doz.) <sup>3</sup>	88.2	81.2	75.8	82.7	68.7	67.4	62.4	56.5	67.2	65.4	
Price of laying feed (\$/ton) <sup>1</sup>	182.5	160.0	137.5	118.4	116.9	116.8	121.9	128.5	94.0	116	
Egg-feed price ratio <sup>2</sup>	8.6	8.8	9.8	12.8	9.8	10.1	9.3	7.8	11.9	10.6	
Stocks, first of month Frozen (mil. doz.)	10.5	7.7	7.4	7.1	8.6	8.5	6.7	7.2	6.8	6.4	
Replacement chicks hatched (mil.)	401.6	424.5	438.4	35.8	34.3	35.5	38.8	38.6	33.1	32.7	

1. Calculated from price ratios that were revised February 1995. 2. Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight (revised February 1995). 3. Price of cartoned eggs to volume buyers for delivery to retailers. Information contact: LaVerne Williams (202) 694-5190

Table 14-Dairy

	Annual			1998		1999				
	1996	1997	1998	Dec	Jul	Aug	Sep	Oct	Nov	Dec
Milk--Basic Formula Price (\$/cwt) <sup>1</sup>	13.4	12.1	14.2	17.3	13.59	15.79	16.26	11.49	9.79	9.63
Wholesale prices										
Butter, Central States (cents/lb.) <sup>2</sup>	108.2	116.2	177.6	140.8	134.7	141.3	135.8	113.7	109.6	94.2
Am. cheese, Wis. assembly pt. (cents/lb.)	149.1	132.4	158.1	192.4	159.7	188.9	167.3	134	117.3	115.7
Nonfat drv milk (cents/lb.) <sup>3</sup>	122.2	110.0	106.9	114.9	101.7	103.8	104.9	104.5	103.4	101.7
USDA net removals										
Total (mil. lb.) <sup>4</sup>	86.9	1,090.3	365.6	20.7	19.8	20.3	30.3	27.2	40.3	55.1
Butter (mil. lb.)	0.1	38.4	6.3	0.0	0	0	0.5	0.5	0.8	1
Am. cheese (mil. lb.)	4.6	11.3	8.2	0.9	0.2	0.5	0.4	0.4	0.2	0.4
Nonfat dry milk (Mil. lb.)	57.2	298.0	326.4	24.4	55	36.3	39.4	33.4	38.7	68.8
Milk										
Milk prod. 20 states (mil. lb.)	131,084	133,314	134,900	11,471	11,610	11,534	11,200	11,549	11,315	11,928
Milk per cow (lb.)	16,726	17,180	17,501	1,461	1,498	1,487	1,445	1,491	1,459	1,538
Number of milk cows (1,000)	7,837	7,760	7,710	7,696	7,751	7,755	7,753	7,746	7,756	7,757
U.S. milk production (mil. lb.) <sup>5</sup>	154,006	156,091	157,348	13,346	13450	13357	12964	13,418	13,141	13847
Stocks, beginning <sup>4</sup>										
Total (mil. lb.)	4,168	4,714	4,907	5,168	9,303	9,476	8,400	7,498	7,033	6,055
Commercial (mil. lb.)	4,099	4,704	4,889	5,140	9264	9432	8350	7455	6898	6011
Government (mil. lb.)	69	10	18	28	39	44	50	43	44	45
Imports, total (mil. lb.) <sup>4</sup>	2,911	2,698	4,588	415	457	476	432	471	371	--
Commercial disappearance (mil. lb.) <sup>4</sup>	154,745	156,120	159,824	13,491	13,608	14,785	14,154	14,217	14,343	--
Butter										
Production (mil. lb.)	1,174.5	1,151.2	1,081.9	106.3	75.7	66.1	78.8	93.0	90.4	107.8
Stocks, beginning (mil. lb.)	15.8	13.4	20.5	28.7	121.0	123.2	94.9	71.3	64.1	29.9
Commercial disappearance (mil. lb.)	1,179.8	1,108.7	1,136.4	110.0	79.7	100.4	104.4	102.8	124.4	--
American cheese										
Production (mil. lb.)	3,280.8	3,285.6	3,325.8	300.1	303.9	294.5	283.6	295.8	287.3	307.3
Stocks, beginning (mil. lb.)	306.6	379.6	410.3	388.5	539.1	545.0	510.8	474.8	458.6	448.2
Commercial disappearance (mil. lb.)	3,229.7	3,269.0	3,349.7	287.8	302.1	332.1	325.8	321	304.5	--
Other cheese										
Production (mil. lb.)	3,936.7	4,044.9	4,176.1	368.4	349.1	356.9	354.8	377.9	392.3	391.0
Stocks, beginning (mil. lb.)	105.3	107.3	70.0	105.9	195.8	205.3	186.7	177.8	162.4	143.5
Commercial disappearance (mil. lb.)	4,242.9	4,366.6	4,450.6	402.6	369.1	409.5	398.5	428.5	454.9	--
Nonfat dry milk										
Production (mil. lb.)	1,061.8	1,271.6	1,135.4	110.9	98.9	99.5	90.6	103	100.6	129.3
Stocks, beginning (mil. lb.)	70.6	71.1	103.3	43.7	158.3	141.1	101.3	87.2	84.0	86.8
Commercial disappearance (mil. lb.)	1,009.5	894.1	867.5	75.3	62.2	104	66.3	74.3	64.2	--
Frozen dessert										
Production (mil. gal.) <sup>6</sup>	1,240.9	1,290.0	1,325.9	84.7	133.7	126.0	108.5	93.9	87.6	83.8
	Annual			1998		1999				
	1997	1998	1999	II	III	IV	I	II	III	IV
Milk production (mil. lb.)	156,091	157,348	162,711	40,767	38,513	38,901	40,505	42,029	39,771	40,406
Milk per cow (lb.)	16,871	17,189	17,771	4,447	4,211	4,262	4,437	4,591	4,337	4,406
No. of milk cows (1,000)	9,252	9,154	9,156	9,167	9,145	9,128	9,128	9,155	9,171	9,170
Milk-feed price ratio	1.54	1.97	2.03	1.71	2.05	2.46	2.20	1.81	2.12	1.99
Returns over concentrate costs (\$/cwt milk)	9.80	12.15	11.45	10.40	12.25	14.80	13.00	9.90	11.90	11.00

-- = Not available. Quarterly values for latest year are preliminary. 1. Manufacturing grade milk. 2. Grade AA Chicago before June 1998. 3. Prices paid f.o.b. Central States production area. 4. Milk equivalent, fat basis. 5. Monthly data ERS estimates. 6. Hard ice cream, ice milk, and hard sherbet. *Information contact: LaVerne Williams (202) 694-5190*

Table 15-Wool

	Annual			1998			1999			
	1997	1998	1999	II	III	IV	I	II	III	IV
U.S. wool price (¢/lb.) <sup>1</sup>	238	162	110	178	142	115	115	116	110	98
Imported wool price (¢/lb.) <sup>2</sup>	206	164	136	176	141	141	146	142	133	125
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	130,386	98,373	--	29,577	21,948	17,530	17,767	17,352	16,759	--
Carpet wool (1,000 lb.)	13,576	16,331	--	4,052	4,020	4,388	4,538	3,855	3,426	--

-- = Not available. 1. Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" and up. 2. Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10 cents.

*Information contact: Mae Dean Johnson (202) 694-5299*

Table 16-Meat Animals

	Annual			1999						2000
	1997	1998	1999	Jan	Aug	Sep	Oct	Nov	Dec	Jan
Cattle on feed (7 states, 1000+ head capacity)										
Number on feed (1,000 head) <sup>1</sup>	8,943	9,455	9,021	9,021	7,879	8,175	8,783	9,776	10,020	8,752
Placed on feed (1,000 head)	20,765	19,697	21,446	1,681	2,070	2,345	2,609	1,823	1,408	1,931
Marketings (1,000 head)	19,552	19,126	19,126	1,738	1,732	1,682	1,560	1,530	1,601	1,747
Other disappearance (1,000 head)	701	691	676	47	42	55	63	62	75	51
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, 1,100-1,300 lb.										
Texas	65.99	61.75	65.89	61.46	65.29	66.05	69.63	70.28	69.01	69.07
Neb. direct	66.32	61.48	65.65	60.65	65.26	66.06	69.58	70.31	69.05	67.97
Boning utility cows, Sioux Falls	34.27	36.20	38.40	35.00	39.60	38.00	39.44	37.88	38.80	39.19
Feeder steers										
Medium no. 1, Oklahoma City										
600-650 lb.	81.34	77.70	82.64	75.60	81.85	83.20	82.03	87.19	91.33	93.13
750-800 lb.	76.19	71.80	76.39	71.75	77.04	78.73	80.53	82.59	88.48	87.50
Slaughter hogs										
Barrows and gilts, 51-52 percent lean										
National Base converted to live equal.	54.30	34.72	34.02	28.58	38.56	35.71	35.84	35.54	37.70	38.25
Sows, Iowa, S.MN 1-2 300-400 lb.	40.24	20.29	19.26	14.55	18.65	19.90	19.73	19.25	19.96	24.60
Slaughter sheep and lambs										
Lambs, Choice, San Angelo	87.95	74.20	75.97	69.31	81.17	76.71	74.81	78.00	83.29	73.71
Ewes, Good, San Angelo	49.33	40.90	42.32	41.00	43.50	42.79	36.44	41.17	41.21	45.67
Feeder lambs										
Choice, San Angelo	104.43	79.59	81.05	78.75	78.83	76.71	75.25	82.54	88.67	84.63
Wholesale meat prices, Midwest										
Boxed beef cut-out value										
Choice, 700-800 lb.	102.75	98.60	111.55	99.53	114.26	115.13	120.24	117.20	116.88	113.74
Select, 700-800 lb.	96.15	92.19	101.99	94.72	104.62	102.91	104.12	103.70	106.32	106.36
Canner and cutter cow beef	64.50	61.49	66.66	60.44	70.15	67.63	66.00	--	68.38	69.86
Pork cutout	--	53.07	53.45	49.69	61.27	56.56	55.75	54.50	58.64	57.75
Pork loins, bone-in, 1/4 " trim, 14-19 lb.	128.75	102.04	100.25	105.82	111.55	104.99	98.98	93.13	102.57	99.29
Pork bellies, 12-14 lb.	73.91	52.38	57.43	48.80	67.29	57.87	70.83	71.50	71.37	80.45
Hams, bone-in, trimmed, 20-23 lb.	--	--	47.90	35.83	52.10	53.65	55.68	66.50	55.96	47.41
All fresh beef retail price	253.77	253.28	260.50	256.50	258.10	260.50	269.70	263.80	265.60	260.32
Commercial slaughter (1,000 head) <sup>2</sup>										
Cattle	36,318	35,465	36,160	2,962	3152	3,101	3,094	2943	2,877	--
Steers	17,529	17,428	17,938	1,428	1601	1,542	1,474	1377	1,426	--
Heifers	11,528	11,448	11,872	991	1021	1,028	1,051	981	902	--
Cows	6,564	5,983	5,741	497	469	474	512	533	498	--
Bull and stags	696	606	639	46	61	57	57	52	51	--
Calves	1,575	1,458	1,484	105	119	121	105	104	113	--
Sheep and lambs	3,911	3,911	3,698	268	296	307	305	329	356	--
Hogs	91,960	101,029	101,555	8,549	8406	8,644	8,947	8898	8,887	--
Barrows and gilts	88,409	97,030	97,687	8,226	8054	8,315	8,643	8538	8,584	--
Commercial production (mil. lb.)										
Beef	25,384	25,653	25,656	2,710	2309	2,276	2,265	2309	2,276	--
Veal	324	252	250	17	20	20	19	20	20	--
Lamb and mutton	257	248	247	18	19	19	20	19	19	--
Pork	17,244	18,981	18,981	1,627	1565	1,618	1,698	1565	1,618	--
	Annual			1998		1999				2000
	1997	1998	1999	III	IV	I	II	III	IV	I
Hogs and pigs (U.S.) <sup>3</sup>										
Inventory (1,000 head) <sup>1</sup>	56,124	61,158	62,206	62,213	63,488	62,206	60,191	60,869	60,776	59,407
Breeding (1,000 head) <sup>1</sup>	6,578	6,957	6,682	6,958	6,875	6,682	6,527	6,515	6,301	6,244
Market (1,000 head) <sup>1</sup>	49,546	54,200	55,523	55,254	56,612	55,523	53,663	54,380	54,474	53,164
Farrowings (1,000 head)	11,479	12,061	11,666	3,054	2,993	2,891	2,986	2,920	2,869	2,810
Pig crop (1,000 head)	99,584	105,004	102,569	26,634	25,902	25,247	26,270	25860	25192	--
Cattle on Feed, 7 states (1,000 head) <sup>4</sup>										
Steers and steer calves	5,410	5,803	5,432	4,608	5,086	5,432	5,341	4,849	5,286	--
Heifers and heifer calves	3,455	3,615	3,552	3,191	3,268	3,552	3,527	3,302	3,479	--
Cows and bulls	78	59	37	37	32	37	31	44	28	--

-- = Not available. 1. Beginning of period. 2. Classes estimated. 3. Quarters are Dec. of preceding year to Feb. (I), Mar.-May (II), June-Aug. (III), and Sept.-Nov. (IV). 4. Beginning of period. The 7 states include AZ, CA, CO, IA, KS, NE, and TX. Information contact: Leland Southard (202) 694-5187



## Crops & Products

Table 17-Supply & Utilization <sup>1,2</sup>

	Area						Feed & residual	Other domestic use		Total use	Ending stocks	Farm price <sup>5</sup>
	Set- aside <sup>3</sup>	Planted	Harvested	Yield	Production	supply <sup>4</sup>			Exports			
	Mil. Acres			Bu./acre				Mil. bu.				\$/bu.
Wheat												
1995/96	6.1	69.0	61.0	35.8	2,183	2,757	154	986	1,241	2,381	376	4.55
1996/97	--	75.1	62.8	36.3	2,277	2,746	308	993	1,002	2,302	444	4.30
1997/98	--	70.4	62.8	39.5	2,481	3,020	251	1,007	1,040	2,298	722	3.38
1998/99*	--	65.8	59.0	43.2	2,547	3,373	397	988	1,042	2,427	946	2.65
1999/2000	--	62.8	53.9	42.7	2,302	3,343	300	996	1,050	2,346	997	2.50-2.60
	Mil. acres			lb./acre				Mil. cwt (rough equiv)				\$/cwt
Rice <sup>6</sup>												
1995/96	0.5	3.1	3.1	5,621.0	173.9	212.8	--	6/ 105.6	82.2	187.8	25.0	9.15
1996/97	--	2.8	2.8	6,120.0	171.6	207.1	--	6/ 102.7	77.2	179.9	27.2	9.96
1997/98	--	3.1	3.1	5,897.0	183.0	219.4	--	6/ 104.6	86.9	191.5	27.9	9.70
1998/99*	--	3.3	3.3	5,669.0	188.1	226.5	--	6/ 119.1	85.3	204.4	22.1	8.89
1999/2000	--	3.6	3.6	5,908.0	210.5	243.3	--	6/ 116.7	86.0	202.7	40.6	5.75-6.25
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
Corn												
1995/96	7.7	71.5	65.2	113.5	7,400	8,974	4,708	1,612	2,228	8,548	426	3.24
1996/97	--	79.2	72.6	127.1	9,233	9,672	5,299	1,692	1,797	8,789	883	2.71
1997/98	--	79.5	72.7	126.7	9,207	10,099	5,505	1,782	1,504	8,791	1,308	2.43
1998/99*	--	80.2	72.6	134.4	9,759	11,085	5,496	1,822	1,981	9,298	1,787	1.94
1999/2000	--	77.4	70.5	133.8	9,437	11,239	5,650	1,900	1,950	9,500	1,739	1.75-2.05
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
Sorghum												
1995/96	1.7	9.4	8.3	55.6	459	530	295	19	198	512	18	3.19
1996/97	--	13.1	11.8	67.3	795	814	516	45	205	766	47	2.34
1997/98	--	10.1	9.2	69.2	634	681	365	55	212	632	49	2.21
1998/99*	--	9.6	7.7	67.3	520	569	262	45	197	504	65	1.66
1999/2000	--	9.3	8.5	69.7	595	660	325	55	225	605	55	1.50-1.80
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
Barley												
1995/96	2.9	6.7	6.3	57.2	359	513	179	172	62	413	100	2.89
1996/97	--	7.1	6.7	58.5	392	529	217	172	31	419	109	2.74
1997/98	--	6.7	6.2	58.1	360	510	144	172	74	390	119	2.38
1998/99*	--	6.3	5.9	60.0	352	501	161	170	28	360	142	1.98
1999/2000	--	5.2	4.8	59.2	282	449	125	172	30	327	122	2.05-2.15
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
Oats												
1995/96	0.8	6.2	3.0	54.6	161	342	182	92	2	276	66	1.67
1996/97	--	4.6	2.7	57.7	153	317	153	95	3	250	67	1.96
1997/98	--	5.1	2.8	59.5	167	332	161	95	2	258	74	1.60
1998/99*	--	4.9	2.8	60.2	166	348	170	95	2	266	81	1.10
1999/2000	--	4.7	2.5	59.6	146	328	150	96	2	248	80	1.05-1.15
	Mil. acres			Bu./acre				Mil. bu.				\$/bu.
Soybeans <sup>7</sup>												
1995/96	--	62.6	61.6	35.3	2,177	2,516	112	1,370	851	2,333	183	6.72
1996/97	--	64.2	63.3	37.6	2,380	2,573	123	1,436	882	2,441	132	7.35
1997/98	--	70.0	69.1	38.9	2,689	2,826	156	1,597	873	2,626	200	6.47
1998/99*	--	72.0	70.4	38.9	2,741	2,944	204	1,590	801	2,595	348	4.93
1999/2000	--	73.8	72.5	36.5	2,643	2,994	159	1,600	890	2,649	345	4.50-5.00
								Mil. lbs.				¢/lb.
Soybean oil												
1995/96	--	--	--	--	15,240	16,472	--	13,465	992	14,457	2,015	24.75
1996/97	--	--	--	--	15,752	17,821	--	14,263	2,037	16,300	1,520	22.50
1997/98	--	--	--	--	18,143	19,723	--	15,262	3,079	18,341	1,382	25.84
1998/99*	--	--	--	--	18,081	19,546	--	15,655	2,372	18,027	1,520	19.90
1999/2000	--	--	--	--	18,080	19,680	--	15,900	1,650	17,550	2,130	15.00-17.00
								1,000 tons				\$/ton <sup>8</sup>
Soybean meal												
1995/96	--	--	--	--	32,527	32,826	--	26,611	6,002	32,613	212	236.0
1996/97	--	--	--	--	34,210	34,524	--	27,320	6,994	34,314	210	270.9
1997/98	--	--	--	--	38,176	38,443	--	28,895	9,329	38,225	218	185.5
1998/99*	--	--	--	--	37,792	38,109	--	30,662	7,117	37,779	330	138.5
1999/2000	--	--	--	--	38,045	38,425	--	31,150	7,000	38,150	275	145-165

See footnotes at end of table, next page

Table 17-Supply &amp; Utilization (continued)

	Area			Yield	Production	Total supply <sup>4</sup>	Feed & residual	Other domestic use	Exports	Total use	Ending stocks	Farm price <sup>5</sup>
	Set-aside <sup>3</sup>	Planted	Harvested									
	Mil. Acres			Lb./acre				Mil. Bales				¢/lb.
Cotton <sup>9</sup>												
1995/96	1.7	16.9	16.0	537	17.9	21.0	--	10.6	7.7	18.3	2.6	75.4
1996/97	0.3	14.7	12.9	705	18.9	22.0	--	11.1	6.9	18.0	4.0	69.3
1997/98	--	13.9	13.4	673	18.8	22.8	--	11.3	7.5	18.8	3.9	65.2
1998/99*	--	13.4	10.7	625	13.9	18.2	--	10.4	4.3	14.7	3.9	60.2
1999/2000*	--	14.9	13.4	608	17.0	21.0	--	10.2	6.4	16.6	4.4	--

-- = Not available or not applicable. \*February 11, 2000 Supply and Demand Estimates. 1. Marketing year beginning June 1 for wheat, barley, and oats; August 1 for cotton and rice; September 1 for soybeans, corn, and sorghum; October 1 for soybean meal and soybean oil. 2. Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3. Includes diversion, acreage reduction, 50-92, & 0-92 programs. 0/92 & 50/92 set-aside includes idled acreage and acreage planted to minor oilseeds, sesame, and crambe. 4. Includes imports. 5. Marketing-year weighted average price received by farmers. Does not include an allowance for loans outstanding and government purchases. 6. Residual included in domestic use. 7. Includes seed. 8. Simple average of 48 percent protein, Decatur. 9. Upland and extra-long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply and use estimates and changes in ending stocks. *Information contacts: Wheat, rice, feed grains, Jenny Gonzales (202) 694-5296; soybeans, soybean products, and cotton, Mae Dean Johnson (202) 694-5299*

Table 18-Cash Prices, Selected U.S. Commodities

	Marketing year <sup>1</sup>			1998	1999					
	1996/97	1997/98	1998/99	Dec	Jul	Aug	Sep	Oct	Nov	Dec
Wheat, no. 1 HRW, Kansas City (\$/bu.) <sup>2</sup>	4.88	3.71	3.08	3.31	2.68	2.85	2.92	2.80	2.89	2.81
Wheat, DNS, Minneapolis (\$/bu.) <sup>3</sup>	4.96	4.31	3.83	3.97	3.68	3.58	3.55	3.70	3.78	3.64
Rice, S.W. La. (\$/cwt) <sup>4</sup>	20.34	18.92	16.79	17.63	14.91	14.68	14.38	14.00	13.85	13.58
Corn, no. 2 yellow, 30-day, Chicago (\$/bu.) <sup>5</sup>	2.84	2.56	2.06	2.16	1.78	1.84	1.88	1.90	1.90	1.93
Sorghum, no. 2 yellow, Kansas City (\$/cwt) <sup>5</sup>	4.54	4.11	3.29	3.41	2.92	3.24	2.97	2.71	2.71	2.87
Barley, feed, Duluth (\$/bu.)	2.32	1.90	--	--	--	--	--	--	--	--
Barley, malting Minneapolis (\$/bu.)	3.18	2.50	--	--	--	--	--	--	--	--
U.S. cotton price, SLM, 1-1/16 in. (¢/lb.) <sup>6</sup>	71.60	67.79	--	59.88	49.23	49.72	48.39	49.46	48.12	46.65
Northern Europe prices cotton index (¢/lb.) <sup>7</sup>	78.66	72.11	--	56.02	54.56	50.98	49.26	47.36	46.13	44.24
U.S. M 1-3/32 in. (¢/lb.) <sup>8</sup>	82.86	77.98	--	71.25	--	58.63	56.30	56.88	54.31	52.75
Soybeans, no. 1 yellow, 30-day Chicago (\$/bu)	7.38	6.51	--	5.55	4.11	4.45	4.65	4.60	4.50	4.55
Soybean oil, crude, Decatur (¢/lb.)	22.50	25.84	19.90	23.99	15.29	16.50	16.79	16.08	15.63	15.30
Soybean meal, 48% protein, Decatur (\$/ton)	270.90	185.54	138.50	146.40	132.73	141.69	150.63	153.57	154.70	154.00

-- = No quotes. 1. Beginning June 1 for wheat and barley; Aug. 1 for rice and cotton; September 1 for corn, sorghum, and soybeans; October 1 for soybean meal and oil. 2. Ordinary protein. 3. 14 percent protein. 4. Long grain, milled basis. 5. Marketing year 1997/98 data are preliminary. 6. Average spot market. 7. Liverpool Cotlook "A" Index; average of 5 lowest prices of 13 selected growths. 8. Cotton, Memphis territory growths. *Information contacts: Wheat, rice, and feed, Jenny Gonzales (202) 694-5296; soybeans, soybean products, and cotton, Mae Dean Johnson (202) 694-5299*

Table 19-Farm Programs, Price Supports, Participation, &amp; Payment Rates

	Target price	Basic loan rate	Findley or announced loan rate <sup>1</sup>	Total deficiency payment rate	Effective base acres <sup>2</sup>	Program <sup>3</sup>	Flexibility contract payment rate	Acres under contract	Contract payment yields	Participation rate <sup>4</sup>
		\$/bu.			Mil. acres	Percent of base	\$/bu.	Mil. acres	Bu./cwt	Percent
Wheat										
1995/96	4.00	2.69	2.58	0.00	77.70	0/0/0	--	--	--	85
1996/97	--	--	2.58	--	--	--	0.87	76.70	34.70	99
1997/98	--	--	2.58	--	--	--	0.631	76.7	34.70	--
1998/99	--	--	2.58	--	--	--	0.663	78.9	34.50	--
1999/2000 <sup>5</sup>	--	--	2.58	--	--	--	0.637	79.0	34.50	--
		\$/cwt					\$/cwt			
Rice										
1995/96	10.71	6.50	6.50 <sup>6</sup>	3.22 #	4.20	5/0/0	--	--	--	95
1996/97	--	6.50	--	--	--	--	2.77	4.20	48.27	99
1997/98	--	6.50	--	--	--	--	2.710	4.2	48.17	--
1998/99	--	6.50	--	--	--	--	2.921	4.2	48.17	--
1999/2000 <sup>5</sup>	--	6.50	--	--	--	--	2.820	4.2	48.15	--
		\$/bu.					\$/bu.			
Corn										
1995/96	2.75	1.94	1.89	0.00	81.80	7.5/0/0	--	--	--	82
1996/97	--	--	1.89	--	--	--	0.25	80.70	102.90	98
1997/98	--	--	1.89	--	--	--	0.486	80.9	102.80	--
1998/99	--	--	1.89	--	--	--	0.377	82.0	102.60	--
1999/2000 <sup>5</sup>	--	--	1.89	--	--	--	0.363	81.9	102.60	--
		\$/bu.					\$/bu.			
Sorghum										
1995/96	2.61	1.84	1.80	0.00	13.30	0/0/0	--	--	--	77
1996/97	--	--	1.81	--	--	--	0.32	13.10	57.30	99
1997/98	--	--	1.76	--	--	--	0.544	13.1	57.30	--
1998/99	--	--	1.74	--	--	--	0.452	13.6	56.90	--
1999/2000 <sup>5</sup>	--	--	1.74	--	--	--	0.435	13.7	56.90	--
		\$/bu.					\$/bu.			
Barley										
1995/96	2.36	1.58	1.54	0.00	10.70	0/0/0	--	--	--	82
1996/97	--	--	1.55	--	--	--	0.33	10.50	47.30	99
1997/98	--	--	1.57	--	--	--	0.277	10.5	47.20	--
1998/99	--	--	1.56	--	--	--	0.284	11.2	46.70	--
1999/2000 <sup>5</sup>	--	--	1.59	--	--	--	0.271	11.2	46.60	--
		\$/bu.					\$/bu.			
Oats										
1995/96	1.45	1.00	0.97	0.00	6.50	0/0/0	--	--	--	44
1996/97	--	--	1.03	--	--	--	0.03	6.20	50.80	97
1997/98	--	--	1.11	--	--	--	0.031	6.2	50.80	--
1998/99	--	--	1.11	--	--	--	0.031	6.5	50.70	--
1999/2000 <sup>5</sup>	--	--	1.13	--	--	--	0.030	6.5	50.60	--
		\$/bu.					\$/bu.			
Soybeans <sup>8</sup>										
1995/96	--	--	4.92	--	--	--	--	--	--	--
1996/97	--	--	4.97	--	--	--	--	--	--	--
1997/98	--	--	5.26	--	--	--	--	--	--	--
1998/99	--	--	5.26	--	--	--	--	--	--	--
1999/2000	--	--	5.26	--	--	--	--	--	--	--
		¢/lb.					¢/lb.			
Upland cotton										
1995/96	72.90	51.92	51.92 <sup>9</sup>	0.00 #	15.50	0/0/0	--	--	--	79
1996/97	--	51.92	--	--	--	--	8.88	16.20	610.00	99
1997/98	--	51.92	--	--	--	--	7.625	16.2	608.00	--
1998/99	--	51.92	--	--	--	--	8.173	16.4	604.00	--
1999/2000 <sup>5</sup>	--	51.92	--	--	--	--	7.880	16.4	604.00	--

-- = Not available. 1. There are no Findley loan rates for rice or cotton. See footnotes 5 and 7. 2. Prior to 1996, national effective crop acreage base as determined by FSA. Net of CRP. 3. Program requirements for participating producers (mandatory acreage reduction program/mandatory paid land diversion/optional paid land diversion). Acres idled must be devoted to a conserving use to receive program benefits. 4. Percentage of effective base enrolled in acreage reduction programs. Starting in 1996, participation rate is the percent of eligible acres that entered production flexibility contracts. 5. Estimated payment rates and acres under contract. 6. A marketing loan program has been in effect for rice since 1985/86. Loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly). Loans cannot be repaid at less than a specified fraction of the loan rate. Data refer to marketing-year average loan repayment rates. Beginning with the 1996 crop, loans are repaid at the lower of the loan rate plus accumulated interest or the adjusted world price. 7. Guaranteed payment rates for producers in the 50/85/92 program were \$0.034/lb. for upland cotton and \$4.21/cwt. for rice. 8. There are no target prices, base acres, acreage reduction programs or deficiency payment rates for soybeans. 9. A marketing loan program has been in effect for cotton since 1986/87. In 1987/88 and after, loans may be repaid at the lower of: a) the loan rate or b) the adjusted world market price (announced weekly; Plan B). Starting in 1991/92, loans cannot be repaid at less than 70 percent of the loan rate. Data refer to annual average loan repayment rates. Beginning with the 1996 crop, loans are repaid at the lower of the loan rate plus accumulated interest or the adjusted world price. Note: The 1996 Farm Act replaced target prices and deficiency payments with fixed annual payments to producers. Information contact: Brenda Chewing, Farm Service Agency (202) 720-8838

Table 20-Fruit

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Citrus <sup>1</sup>										
Production (1,000 tons)	10,860	11,285	12,452	15,274	14,561	15,799	15,712	17,271	17,770	13,702
Per capita consumpt. (lb.) <sup>2</sup>	21.4	19.1	24.4	26.0	25.0	24.1	24.9	27.0	27.0	--
Noncitrus <sup>3</sup>										
Production (1,000 tons)	15,640	15,740	17,124	16,554	17,339	16,348	16,103	18,363	16,509	17,119
Per capita consumpt. (lb.) <sup>2</sup>	70.4	70.6	73.8	73.9	75.6	73.7	73.9	76.3	76.2	--
	1999									2000
	Jan	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Grower prices										
Apples (¢/pound) <sup>4</sup>	15.8	13.3	12.7	12.4	18.4	23.2	23.5	23.3	23.7	23.5
Pears (¢/pound) <sup>4</sup>	18.65	17.00	17.80	23.45	16.10	15.75	21.95	21.90	20.70	20.70
Oranges (\$/box) <sup>5</sup>	5.15	6.46	8.78	10.10	11.48	7.98	10.25	4.33	3.41	--
Grapefruit (\$/box) <sup>5</sup>	1.80	3.66	8.78	10.67	7.45	8.18	6.80	5.21	3.71	--
Stocks, ending										
Fresh apples (mil. lb.)	4,169	1,252	732	361	103	2,835	6,165	5,524	4,653	4,012
Fresh pears (mil. lb.)	236	39	10	12	130	552	515	400	299	234
Frozen fruits (mil. lb.)	1,103	801	877	1,101	1,183	1,136	1,631	1,583	1,455	--
Frozen conc. orange juice (mil. single-strength gallons)	816	863	804	744	661	589	482	450	543	644

-- = Not available. 1. Year shown is when harvest concluded. 2. Fresh per capita consumption. 3. Calendar year. 4. Fresh use. 5. U.S. equivalent on-tree returns. Information contact: Susan Pollack (202) 694-5251

Table 21-Vegetables

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Production <sup>1</sup>										
Total vegetables (1,000 cwt)	562,938	565,754	689,070	688,824	782,505	747,988	762,952	760,951	732,259	--
Fresh (1,000 cwt) <sup>2,4</sup>	254,039	242,733	389,597	387,330	412,880	393,398	409,317	433,878	419,779	--
Processed (tons) <sup>3,4</sup>	15,444,970	16,151,030	14,973,630	15,074,707	18,481,238	17,729,497	17,681,732	16,353,639	15,624,011	--
Mushrooms (1,000 lbs) <sup>5</sup>	749,151	746,832	776,357	750,799	782,340	777,870	776,677	808,678	848,401	--
Potatoes (1,000 cwt)	402,110	417,622	425,367	430,349	469,425	445,099	499,254	467,091	475,771	478,398
Sweet potatoes (1,000 cwt)	12,594	11,203	12,005	11,027	13,380	12,821	13,216	13,327	12,382	11,980
Dry edible beans (1,000 cwt)	32,379	33,765	22,615	21,862	28,950	30,689	27,912	29,370	30,418	33,230
	1999									2000
	Jan	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Shipments (1,000 cwt)										
Fresh	19,681	29,042	36,831	21,355	17,816	20,143	17,722	19,204	22,478	19,965
Iceberg lettuce	3,068	3,594	4,370	3,287	3,079	3,952	3,382	2,918	3,535	2,889
Tomatoes, all	3,496	3,596	4,053	2,766	2,478	3,599	3,096	3,205	3,986	3,642
Dry-bulb onions	2,896	3,626	3,759	3,029	3,124	4,461	3,764	3,597	3,891	3,232
Others <sup>6</sup>	10,221	18,226	24,649	12,273	9,135	8,131	7,480	9,484	11,066	10,202
Potatoes, all	12,819	16,160	13,579	9,825	9,217	12,148	10,928	12,745	15,578	12,201
Sweet potatoes	263	184	196	155	172	321	313	681	371	205

-- = Not available. 1. Calendar year except mushrooms. 2. Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes through 1991. 3. Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, and cauliflower. 4. Data after 1991 not comparable to previous years because commodity estimates reinstated in 1992 are included. 5. Fresh and processing agaricus mushrooms only. Excludes specialty varieties. Crop year July 1- June 30. 6. Includes snap beans, broccoli, cabbage, cauliflower, celery, sweet corn, cucumbers, eggplant, bell peppers, honeydews, and watermelons. Information contact: Gary Lucier (202) 694-5253

Table 22-Other Commodities

	Annual			1998			1999			
	1996	1997	1998	II	III	IV	I	II	III	IV
Sugar										
Production <sup>1</sup>	7,268	7,418	7,891	824	733	3,959	2,636	1,031	749	--
Deliveries <sup>1</sup>	9,633	9,755	9,851	2,465	2,616	2,508	2,271	2,594	2,693	--
Stocks, ending <sup>1</sup>	3,195	3,377	3,423	2,881	1,679	3,423	4,219	3,184	1,639	--
Coffee										
Composite green price <sup>2</sup> N.Y. (¢/lb.)	109.35	146.49	114.43	117.73	98.57	97.83	94.37	90.41	77.40	91.79
		Annual		1998			1999			
	1996	1997	1998	Dec	Jul	Aug	Sep	Oct	Nov	Dec
Tobacco										
Avg. price to grower <sup>3</sup>										
Flue-cured (\$/lb.)	1.83	1.73	1.75	--	1.50	1.64	1.75	1.82	--	--
Burley (\$/lb.)	1.92	1.91	1.91	1.92	--	--	--	--	1.90	1.91
Domestic taxable removals										
Cigarettes (bil.)	484.7	471.4	457.9	29.1	--	--	--	--	--	--
Large cigars (mil.) <sup>4</sup>	3,166	3,552	3,721	299.4	--	--	--	--	--	--

-- = Not available. 1. 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2. Net imports of green and processed coffee. 3. Crop year July-June for flue-cured, October-September for burley. 4. Includes imports of large cigars. Information contacts: sugar and coffee, Fannye Jolly (202) 694-5249; tobacco, Tom Capehart (202) 694-5245



## World Agriculture

Table 23-World Supply & Utilization of Major Crops, Livestock & Products

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99 F	1999/2000 F
<i>Million units</i>										
Wheat										
Area (hectares)	231.4	222.5	222.9	222.0	214.5	219.2	230.3	227.9	224.7	216.5
Production (metric tons)	588.0	542.9	562.4	558.8	524.0	538.5	582.8	609.3	588.7	584.4
Exports (metric tons) <sup>1</sup>	101.1	111.2	113.0	101.5	100.8	97.4	102.0	102.0	101.1	104.2
Consumption (metric tons) <sup>2</sup>	561.9	555.5	550.3	561.7	547.3	548.7	575.9	585.2	591.9	591.1
Ending stocks (metric tons) <sup>3</sup>	145.0	132.5	144.5	141.6	118.3	108.1	115.0	139.2	136.0	129.4
Coarse grains										
Area (hectares)	316.4	321.9	323.5	316.8	322.3	313.3	321.9	311.0	308.8	303.7
Production (metric tons)	828.8	810.4	871.5	798.8	871.2	802.9	908.3	883.3	890.5	873.7
Exports (metric tons) <sup>1</sup>	88.8	95.6	92.2	85.0	97.8	87.3	94.7	85.5	95.9	96.1
Consumption (metric tons) <sup>2</sup>	817.2	809.7	843.7	838.7	857.4	842.3	877.3	875.5	873.2	878.5
Ending stocks (metric tons) <sup>3</sup>	134.8	135.6	163.2	123.4	137.2	97.8	128.7	136.4	153.7	149.0
Rice, milled										
Area (hectares)	146.6	147.4	146.4	144.9	147.4	148.1	149.8	151.3	152.3	153.5
Production (metric tons)	352.1	354.7	355.7	355.4	364.5	371.4	380.4	386.6	391.8	396.5
Exports (metric tons) <sup>1</sup>	12.2	14.3	14.9	16.3	20.9	19.7	18.8	27.3	25.2	23.6
Consumption (metric tons) <sup>2</sup>	347.4	356.7	357.7	358.2	366.6	371.4	379.5	383.3	389.3	394.8
Ending stocks (metric tons) <sup>3</sup>	59.2	57.2	55.2	52.4	50.4	50.4	51.3	54.7	57.1	58.8
Total grains										
Area (hectares)	694.4	691.8	692.8	683.7	684.2	680.6	702.0	690.2	685.8	673.7
Production (metric tons)	1,768.9	1,708.0	1,789.6	1,713.0	1,759.7	1,712.8	1,871.5	1,879.2	1,871.0	1,854.6
Exports (metric tons) <sup>1</sup>	202.1	221.1	220.1	202.8	219.5	204.4	215.5	214.8	222.2	223.9
Consumption (metric tons) <sup>2</sup>	1,726.5	1,721.9	1,751.7	1,758.6	1,771.3	1,762.4	1,832.7	1,844.0	1,854.4	1,864.4
Ending stocks (metric tons) <sup>3</sup>	339.0	325.3	362.9	317.4	305.9	256.3	295.0	330.3	346.8	337.2
Oilseeds										
Crush (metric tons)	176.7	185.1	184.4	190.1	208.1	217.4	219.2	227.6	238.8	246.2
Production (metric tons)	2,949.8	2,873.1	3,016.8	2,867.2	2,995.4	2,887.1	3,160.2	3,149.1	3,153.3	3,124.8
Exports (metric tons)	33.4	37.6	38.2	38.7	44.1	44.3	49.6	53.8	54.6	57.7
Ending stocks (metric tons)	23.4	21.9	23.6	20.3	27.2	22.2	17.2	24.9	27.9	26.0
Meals										
Production (metric tons)	119.3	125.2	125.2	131.7	142.1	147.2	149.7	155.2	163.4	168.1
Exports (metric tons)	40.7	42.2	40.8	44.9	46.7	49.7	50.7	51.9	54.3	54.9
Oils										
Production (metric tons)	58.1	60.6	61.1	63.7	69.6	73.0	75.9	76.6	81.9	85.8
Exports (metric tons)	20.5	21.3	21.3	24.3	27.1	26.0	29.1	29.9	31.6	32.3
Cotton										
Area (hectares)	33.2	34.8	32.6	30.6	32.2	35.9	33.8	33.7	32.9	32.2
Production (bales)	87.1	95.7	82.5	77.1	85.9	93.1	89.6	91.6	84.5	86.9
Exports (bales)	29.6	28.5	25.5	26.8	28.4	27.8	26.8	26.7	23.6	26.5
Consumption (bales)	85.5	85.7	85.5	85.3	85.5	86.9	89.0	88.4	85.2	88.5
Ending stocks (bales)	27.8	37.6	35.4	27.6	29.9	35.8	38.2	40.8	41.7	40.3
	1991	1992	1993	1994	1995	1996	1997	1998	1999 F	2000 F
Red meat <sup>4</sup>										
Production (metric tons)	117.7	117.3	119.3	124.6	129.5	124.2	127.9	131.4	132.8	133.1
Consumption (metric tons)	116.1	115.7	118.3	123.6	127.8	121.4	125.1	128.6	130.6	131.3
Exports (metric tons) <sup>1</sup>	7.5	7.4	7.4	8.1	8.2	8.4	9.0	8.9	9.0	9.3
Poultry <sup>4</sup>										
Production (metric tons)	39.6	38.0	40.5	43.2	47.5	50.4	52.7	53.5	55.6	57.4
Consumption (metric tons)	38.4	37.0	39.4	42.0	47.0	49.7	51.9	52.4	54.1	56.0
Exports (metric tons) <sup>1</sup>	2.8	2.4	2.8	3.6	4.5	5.2	5.6	5.7	5.9	6.2
Dairy										
Milk production (metric tons) <sup>5</sup>	377.6	378.4	377.6	378.4	380.7	379.8	380.8	383.7	384.9	387.2

-- = Not available. F = forecast. 1. Excludes intra-EU trade but includes intra-FSU trade. 2. Where stocks data are not available, consumption includes stock changes. 3. Stocks data are based on differing marketing years and do not represent levels at a given date. Data not available for all countries.

4. Calendar year data. 1990 data correspond with 1989/90, etc. 5. Data prior to 1989 no longer comparable.

Information contacts: Crops, Ed Allen (202) 694-5288; red meat and poultry, Leland Southard (202) 694-5187; dairy, LaVerne Williams (202) 694-5190

## U.S. Agricultural Trade

Table 24-Prices of Principal U.S. Agricultural Trade Products

	Annual			1999						2000
	1997	1998	1999	Jan	Aug	Sep	Oct	Nov	Dec	Jan
<b>Export commodities</b>										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	4.35	3.44	3.04	3.41	2.99	3.08	2.92	2.96	2.80	2.89
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	2.98	2.59	2.30	2.48	2.20	2.21	2.18	2.17	2.22	2.36
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	2.89	2.54	2.15	2.32	2.12	2.02	1.96	2.02	2.04	2.23
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	7.94	6.37	5.02	5.65	5.00	5.18	5.01	4.90	4.92	5.21
Soybean oil, Decatur (¢/lb.)	23.33	25.78	17.51	22.88	16.50	16.79	16.08	15.63	15.33	15.56
Soybean meal, Decatur (\$/ton)	266.70	162.74	141.52	138.82	141.69	150.64	153.57	154.71	154.00	163.41
Cotton, 7-market avg. spot (¢/lb.)	69.62	67.04	52.30	56.20	49.72	48.39	49.41	48.12	46.65	51.92
Tobacco, avg. price at auction (¢/lb.)	182.74	179.77	177.82	192.97	163.99	175.03	181.47	176.99	190.56	189.98
Rice, f.o.b., mill, Houston (\$/cwt)	20.88	18.95	16.99	18.44	16.48	16.00	16.00	15.80	15.75	15.55
Inedible tallow, Chicago (¢/lb.)	20.75	17.67	12.99	16.30	11.69	14.38	16.50	14.50	14.00	11.94
<b>Import commodities</b>										
Coffee, N.Y. spot (\$/lb.)	2.05	1.39	1.05	1.11	0.93	0.86	0.95	1.14	1.29	1.19
Rubber, N.Y. spot (¢/lb.)	55.40	40.57	36.66	38.99	33.63	34.32	37.58	42.63	38.88	38.16
Cocoa beans, N.Y. (\$/lb.)	0.69	0.72	0.47	0.61	0.43	0.43	0.42	0.38	0.38	0.38

Information contacts: Jenny Gonzales (202) 694-5296, Mae Dean Johnson (202) 694-5299.

Table 25-Trade Balance

	Fiscal Year			1998	1999					
	1998	1999	2000 P	Dec	Jul	Aug	Sep	Oct	Nov	Dec
\$ million										
<b>Exports</b>										
Agricultural	53,730	49,102	49,500	4,827	3,718	3,949	3,931	4,520	4,629	4,405
Nonagricultural	585,826	586,652	--	49,855	45,341	49,349	50,418	52,813	51,725	54,397
Total <sup>1</sup>	639,556	635,754	--	54,682	49,059	53,298	54,349	57,333	56,354	58,802
<b>Imports</b>										
Agricultural	37,007	37,447	38,000	3,191	2,899	2,990	2,883	3,089	3,185	3,367
Nonagricultural	858,893	938,811	--	72,816	83,429	85,723	86,377	90,658	89,343	87,479
Total <sup>2</sup>	895,900	976,258	--	76,007	86,328	88,713	89,260	93,747	92,528	90,846
<b>Trade Balance</b>										
Agricultural	16,723	11,655	11,500	1,636	819	959	1,048	1,431	1,444	1,038
Nonagricultural	-273,067	-352,159	--	-22,961	-38,088	-36,374	-35,959	-37,845	-37,618	-33,082
Total	-256,344	-340,504	--	-21,325	-37,269	-35,415	-34,911	-36,414	-36,174	-32,044

P = Projected. -- = Not available. Fiscal year (Oct. 1-Sep. 30). 1. Domestic exports including Department of Defense shipments (f.a.s. value).

2. Imports for consumption (customs value). Information contact: Mary Fant (202) 694-5272

Table 26-Indexes of Real Trade-Weighted Dollar Exchange Rates <sup>1</sup>

	Annual			1998	1999					
	1997	1998	1999	Dec	Jul	Aug	Sep	Oct	Nov	Dec
					1995 = 100					
Total U.S. trade	116.3	119.6	118.9	115.0	126.2	123.2	123.1	121.1	124.0	125.3
Agricultural trade										
U.S. markets	109.8	118.6	118.0	114.9	117.3	115.2	113.6	112.9	113.0	112.4
U.S. competitors	111.6	117.9	117.5	113.9	124.6	123.6	124.7	123.2	125.5	126.5
High-value products										
U.S. markets	110.2	117.5	117.3	114.7	115.7	113.7	111.7	111.1	110.8	110.2
U.S. competitors	113.1	117.0	116.6	113.1	124.8	123.1	124.1	122.6	125.5	127.0
Corn										
U.S. markets	115.7	127.1	125.4	119.1	122.1	118.8	116.0	115.2	114.8	113.4
U.S. competitors	109.7	112.9	112.8	110.5	120.1	119.2	119.8	118.7	120.9	121.7
Soybeans										
U.S. markets	115.2	124.9	123.1	117.3	123.5	117.8	120.3	121.7	121.9	124.5
U.S. competitors	101.9	106.4	112.0	108.6	129.9	114.4	116.1	115.4	115.2	115.4
Wheat										
U.S. markets	103.9	111.3	111.4	108.8	114.5	113.6	112.9	112.5	112.4	111.9
U.S. competitors	110.5	117.3	117.8	116.9	121.8	121.1	121.3	120.2	122.3	123.3
Vegetables										
U.S. markets	107.2	115.4	115.7	114.8	114.0	112.8	111.4	111.0	110.7	110.4
U.S. competitors	111.9	115.1	114.0	110.4	120.6	118.8	119.6	118.2	120.7	122.0
Red meats										
U.S. markets	117.7	128.5	126.9	120.5	121.7	117.7	113.9	113.1	112.3	110.7
U.S. competitors	112.9	118.4	118.4	115.5	125.4	124.0	124.9	123.6	126.3	127.6
Fruits & fruit juices										
U.S. markets	110.8	118.6	118.5	116.3	118.0	116.1	114.2	113.6	113.6	113.2
U.S. competitors	109.4	114.2	114.6	111.1	123.8	122.8	124.1	123.1	125.4	126.1
Cotton										
U.S. markets	110.0	132.3	128.5	120.3	121.9	122.1	122.5	120.7	119.5	118.0
U.S. competitors	100.0	103.0	103.2	102.3	107.3	107.2	107.8	107.4	108.6	109.0
Poultry										
U.S. markets	95.4	101.5	104.5	108.5	107.4	107.2	106.9	106.9	106.5	106.1
U.S. competitors	113.2	117.6	117.7	113.4	129.2	128.2	129.9	128.6	130.8	131.4

1. Real indexes adjust nominal exchange rates to avoid the distortion caused by different levels of inflation among countries. A higher value means the dollar has appreciated. The "total U.S. trade" index uses the Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major countries. Weights are based on relative importance of major U.S. customers and competitors in world markets. Indexes are subject to revision for up to one year due to delayed reporting by some countries. High-value products conform to FAS's definition for consumer-oriented agricultural products. Data are available at <http://mann77.mannlib.cornell.edu/data-sets/international/88021/>. Information contact: Mathew Shane (202) 694-5282

Source: Nominal exchange rates are obtained from the IMF International Financial Statistics. Exchange rates for the EU-11 are obtained from the Board of Governors of the Federal Reserve Board.

Table 27-U.S. Agricultural Exports &amp; Imports

	Fiscal Year			Dec		Fiscal Year			Dec	
	1998	1999	2000 P	1998	1999	1998	1999	2000 P	1998	1999
	1,000 units					\$ million				
Exports										
Animals, live	--	--	--	--	--	538	509	--	86	59
Meats and preps., excl. poultry (mt) <sup>1</sup>	2,064	2,061	1,700	170	206	4,507	4,460	4,800	351	431
Dairy products	--	--	--	--	--	925	897	900	80	86
Poultry meats (mt)	2,663	2,377	2,600	224	232	2,347	1,743	1,800	159	164
Fats, oils, and greases (mt)	1,365	1,395	1,400	141	120	655	561	--	62	50
Hides and skins, incl. furskins	--	--	--	--	--	1,358	1,108	1,100	76	96
Cattle hides, whole (no.)	18,992	17,845	--	1,276	1,563	969	844	--	60	80
Mink pelts (no.)	2,990	4,172	--	117	94	83	98	--	3	2
Grains and feeds (mt) <sup>2</sup>	87,289	104,576	--	9,443	9,018	13,961	14,272	13,400	1,323	1,176
Wheat (mt) <sup>3</sup>	25,791	28,806	26,500	2,626	2,290	3,759	3,648	3,600	349	283
Wheat flour (mt)	465	958	1,000	128	130	117	177	--	24	14
Rice (mt)	3,310	3,076	3,100	255	284	1,132	1,010	900	86	83
Feed grains, incl. products (mt) <sup>4</sup>	44,564	58,398	54,100	5,298	4,966	5,187	5,821	5,000	553	465
Feeds and fodders (mt)	11,704	11,800	11,600	1,008	1,207	2,421	2,252	2,300	197	216
Other grain products (mt)	1,455	1,538	--	128	142	1,345	1,363	--	114	115
Fruits, nuts, and preps. (mt)	3,633	3,439	--	293	299	3,977	3,805	4,600	318	321
Fruit juices, incl.										
froz. (1,000 hectoliters)	10,658	12,317	--	810	769	653	735	--	52	48
Vegetables and preps.	--	--	--	--	--	4,168	4,245	2,800	377	404
Tobacco, unmanufactured (mt)	208	205	200	25	9	1,448	1,376	1,300	156	62
Cotton, excl. linters (mt) <sup>5</sup>	1,552	884	1,400	224	142	2,517	1,309	1,700	329	169
Seeds (mt)	816	579	--	61	78	827	800	900	107	90
Sugar, cane or beet (mt)	123	158	--	14	11	48	56	--	5	4
Oilseeds and products (mt)	36,074	33,569	34,700	3,654	4,061	10,984	8,606	8,500	987	867
Oilseeds (mt)	--	--	--	--	--	6,818	5,690	--	612	602
Soybeans (mt)	23,394	22,974	24,400	2,501	2,948	6,117	4,748	4,800	552	551
Protein meal (mt)	8,666	6,726	--	689	772	1,975	1,101	--	121	137
Vegetable oils (mt)	3,049	2,642	--	356	216	2,191	1,815	--	254	128
Essential oils (mt)	46	47	--	3	4	533	507	--	36	38
Other	--	--	--	--	--	4,284	4,112	--	323	342
Total	--	--	--	--	--	53,730	49,102	49,500	4,827	4,405
Imports										
Animals, live	--	--	--	--	--	1,670	1,439	1,500	106	223
Meats and preps., excl. poultry (mt)	1,230	1,398	1,600	115	118	2,718	3,088	3,300	247	282
Beef and veal (mt)	857	943	--	74	75	1,761	2,047	--	158	178
Pork (mt)	271	337	--	29	32	686	721	--	58	72
Dairy products	--	--	--	--	--	1,368	1,572	1,500	164	139
Poultry and products	--	--	--	--	--	207	201	--	18	23
Fats, oils, and greases (mt)	80	90	--	3	11	59	63	--	3	7
Hides and skins, incl. furskins (mt)	--	--	--	--	--	184	146	--	15	14
Wool, unmanufactured (mt)	45	29	--	3	1	151	75	--	7	4
Grains and feeds	--	--	--	--	--	2,919	2,943	2,800	246	264
Fruits, nuts, and preps.,										
excl. juices (mt) <sup>6</sup>	7,581	8,171	8,200	556	657	3,982	4,619	5,600	364	405
Bananas and plantains (mt)	4,175	4,418	4,300	289	332	1,214	1,212	1,200	80	82
Fruit juices (1,000 hectoliters)	26,577	31,655	33,000	2,669	2,813	669	772	--	64	66
Vegetables and preps.	--	--	--	--	--	4,249	4,527	4,900	426	428
Tobacco, unmanufactured (mt)	241	217	200	17	29	822	742	600	74	96
Cotton, unmanufactured (mt)	10	144	--	6	3	11	150	--	10	3
Seeds (mt)	257	357	--	19	39	422	457	--	30	27
Nursery stock and cut flowers	--	--	--	--	--	1,082	1,076	1,100	81	84
Sugar, cane or beet (mt)	2,170	1,692	--	134	105	758	606	--	40	43
Oilseeds and products (mt)	4,314	3,899	3,600	368	327	2,243	2,022	1,900	185	169
Oilseeds (mt)	1,028	1,000	--	86	56	371	326	--	31	19
Protein meal (mt)	1,277	1,131	--	115	108	188	147	--	14	13
Vegetable oils (mt)	2,010	1,769	--	167	163	1,684	1,549	--	140	138
Beverages, excl. fruit										
juices (1,000 hectoliters)	--	--	--	--	--	3,705	4,258	--	308	323
Coffee, tea, cocoa, spices (mt)	2,369	2,520	--	221	252	6,056	5,306	--	494	481
Coffee, incl. products (mt)	1,155	1,294	1,400	118	120	3,587	2,967	2,700	278	262
Cocoa beans and products (mt)	875	865	800	77	102	1,701	1,531	1,500	149	144
Rubber and allied gums (mt)	1,162	1,148	1,200	114	88	1,027	739	700	80	54
Other	--	--	--	--	--	2,703	2,643	--	228	231
Total	--	--	--	--	--	37,007	37,447	38,000	3,191	3,367

P=Projection. -- = Not available. Projections are fiscal years (October 1 through September 30) and are from Outlook for U.S. Agricultural Exports.

1998 and 1999 data are from *Foreign Agricultural Trade of the U.S.* 1. Projection includes beef, pork, and variety meat. 2. Projection includes pulses. 3. Value projection includes wheat flour. 4. Projection excludes grain products. 5. Projection includes linters. 6. Value projection includes juice.

Information Contact: Mary Fant (202) 694-5272



Table 28-U.S. Agricultural Exports by Region

	Fiscal year			1998			1999			
	1998	1999	2000 F	Dec	Jul	Aug	Sep	Oct	Nov	Dec
	\$ million									
Region & country										
<b>Western Europe</b>	8,859	7,498	7,400	844	418	592	494	617	728	656
European Union <sup>1</sup>	8,522	6,928	6,900	824	382	404	398	600	706	637
Belgium-Luxembourg	666	602	--	83	32	38	39	51	68	43
France	538	380	--	44	24	22	20	30	46	52
Germany	1,294	1,045	--	130	56	57	61	78	106	71
Italy	729	573	--	72	19	36	22	36	60	50
Netherlands	1,792	1,575	--	222	70	74	92	132	179	148
United Kingdom	1,300	1,123	--	85	90	84	80	106	105	98
Portugal	186	131	--	11	5	10	9	12	10	22
Spain, incl. Canary Islands	1,132	772	--	77	37	37	31	83	71	101
Other Western Europe	336	570	500	20	36	188	96	17	22	19
Switzerland	236	456	--	13	29	171	88	8	13	12
<b>Eastern Europe</b>	320	190	200	25	15	9	9	17	15	13
Poland	139	73	--	3	6	5	5	3	4	4
Former Yugoslavia	97	47	--	12	4	2	2	10	8	2
Romania	31	18	--	2	0	0	0	1	1	1
<b>Newly Independent States</b>	1,456	801	900	46	121	102	88	97	68	59
Russia	1,103	461	500	28	61	71	48	66	24	27
<b>Asia<sup>2</sup></b>	21,992	20,412	18,200	1,913	1,537	1,648	1,663	1,858	1,920	1,788
West Asia (Mideast)	2,286	1,977	2,200	206	196	162	127	241	229	193
Turkey	658	448	600	51	46	19	13	65	47	77
Iraq	131	9	--	0	0	0	0	0	0	0
Israel, incl. Gaza and W. Bank	389	417	--	43	51	24	29	35	45	34
Saudi Arabia	535	468	500	55	31	43	30	59	46	29
South Asia	626	500	500	80	29	32	47	58	53	30
Bangladesh	114	165	--	28	8	15	21	6	17	4
India	163	190	--	38	12	8	17	10	11	18
Pakistan	275	89	--	12	4	2	1	37	19	1
China	1,514	1,002	900	79	35	73	150	98	109	104
Japan	9,469	8,931	9,000	794	636	698	704	741	816	717
Southeast Asia	2,288	2,204	2,100	211	168	195	174	237	224	241
Indonesia	529	492	500	60	33	41	36	56	60	69
Philippines	751	730	700	57	61	69	68	67	71	83
Other East Asia	5,808	5,799	5,700	543	473	487	461	482	489	504
Korea, Rep.	2,258	2,479	2,600	200	228	220	191	213	197	206
Hong Kong	1,568	1,264	1,200	142	88	97	114	112	115	126
Taiwan	1,975	2,046	1,900	200	156	169	156	157	176	168
<b>Africa</b>	2,174	2,108	2,200	217	178	171	158	206	152	204
North Africa	1,475	1,419	1,500	154	123	114	99	150	94	148
Morocco	139	161	--	15	16	17	7	12	15	5
Algeria	281	220	--	23	22	30	19	8	29	21
Egypt	939	957	1,000	107	79	61	68	124	49	113
Sub-Sahara	699	689	700	63	55	56	59	57	57	56
Nigeria	140	176	--	10	9	17	17	13	11	10
S. Africa	193	165	--	16	17	13	13	20	15	25
<b>Latin America and Caribbean</b>	11,362	10,501	10,700	1,156	805	799	851	955	955	988
Brazil	566	369	400	36	22	19	20	18	19	18
Caribbean Islands	1,487	1,453	--	135	109	113	106	146	147	146
Central America	1,137	1,209	--	142	79	87	82	97	99	113
Colombia	606	467	--	50	34	32	28	36	45	30
Mexico	5,956	5,675	5,900	633	457	449	521	566	526	599
Peru	314	347	--	39	31	23	24	19	25	18
Venezuela	516	457	400	53	29	33	29	31	43	27
<b>Canada</b>	7,022	6,957	7,100	586	586	556	592	657	630	606
<b>Oceania</b>	545	499	500	42	37	50	36	47	39	44
<b>Total</b>	53,730	49,102	49,500	4,827	3,718	3,949	3,931	4,520	4,629	4,405

F = Forecast. -- = Not available. Based on fiscal year beginning October 1 and ending September 30. 1. Austria, Finland, and Sweden are included in the European Union. 2. Asia forecasts exclude West Asia (Mideast). NOTE: Adjusted for transshipments through Canada for 1997 and 1998 through December 1998, but transshipments are not distributed by country as previously for 1999. Information contact: Mary Fant (202) 694-5272

## Farm Income

Table 29-Value Added to the U.S. Economy by the Agricultural Sector

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
	\$ billion									
Final crop output	81.0	89.0	82.3	100.4	95.8	115.4	112.1	102.0	95.0	93.5
Food grains	7.3	8.5	8.2	9.5	10.4	10.7	10.1	8.7	7.4	6.7
Feed crops	19.3	20.1	20.2	20.3	24.5	27.2	27.1	22.9	20.6	19.5
Cotton	5.2	5.2	5.2	6.7	6.9	7.0	6.3	6.0	5.0	5.3
Oil crops	12.7	13.3	13.2	14.7	15.5	16.3	19.7	17.2	14.6	14.3
Tobacco	2.9	3.0	2.9	2.7	2.5	2.8	2.9	3.0	2.2	1.8
Fruits and tree nuts	9.9	10.2	10.3	10.3	11.1	11.9	13.1	11.7	12.5	12.6
Vegetables	11.6	11.8	13.7	14.2	15.0	14.4	15.0	15.3	15.1	15.7
All other crops	13.1	13.7	13.7	14.7	15.0	15.8	16.9	17.3	17.8	17.5
Home consumption	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Value of inventory adjustment <sup>1</sup>	-1.2	3.2	-5.3	7.2	-5.3	9.1	0.9	-0.4	-0.2	0.0
Final animal output	87.3	87.1	92.0	89.7	87.7	92.1	96.5	94.3	96.0	96.8
Meat animals	50.1	47.7	51.0	46.7	44.9	44.2	49.7	43.6	46.9	47.7
Dairy products	18.0	19.7	19.3	20.0	19.9	22.8	20.9	24.3	23.4	21.4
Poultry and eggs	15.2	15.5	17.3	18.5	19.1	22.4	22.2	22.8	22.8	23.6
Miscellaneous livestock	2.5	2.6	2.9	3.1	3.3	3.6	3.7	3.8	3.8	3.8
Home consumption	0.5	0.5	0.4	0.4	0.4	0.3	0.4	0.3	0.4	0.4
Value of inventory adjustment <sup>1</sup>	1.0	1.0	1.1	1.1	0.2	-1.1	-0.4	-0.6	-1.2	-0.1
Services and forestry	15.4	15.3	17.1	18.1	19.9	20.8	22.5	24.6	25.4	25.2
Machine hire and customwork	1.8	1.8	1.9	2.1	1.9	2.1	2.6	2.3	2.3	2.4
Forest products sold	1.8	2.2	2.5	2.7	2.8	2.6	2.9	2.8	2.9	2.9
Other farm income	4.7	4.1	4.6	4.3	5.8	6.2	6.9	8.7	9.2	8.8
Gross imputed rental value of farm dwellings	7.2	7.2	8.1	9.0	9.4	9.9	10.1	10.8	11.0	11.1
<b>Final agricultural sector output <sup>2</sup></b>	<b>183.7</b>	<b>191.4</b>	<b>191.4</b>	<b>208.2</b>	<b>203.5</b>	<b>228.4</b>	<b>231.2</b>	<b>220.8</b>	<b>216.4</b>	<b>215.5</b>
Minus Intermediate consumption outlays:	94.6	93.4	100.7	104.9	109.7	113.2	120.9	118.7	119.5	121.3
Farm origin	38.6	38.6	41.3	41.3	41.8	42.7	46.9	44.9	45.2	44.6
Feed purchased	19.3	20.1	21.4	22.6	23.8	25.2	26.3	25.0	24.1	23.8
Livestock and poultry purchased	14.1	13.6	14.7	13.3	12.5	11.3	13.8	12.7	13.9	13.5
Seed purchased	5.1	4.9	5.2	5.4	5.5	6.2	6.7	7.2	7.2	7.2
Manufactured inputs	23.2	22.7	23.1	24.4	26.2	28.6	29.2	28.3	29.2	30.2
Fertilizers and lime	8.7	8.3	8.4	9.2	10.0	10.9	10.9	10.7	10.4	10.5
Pesticides	6.3	6.5	6.7	7.2	7.7	8.5	9.0	9.1	9.1	9.1
Petroleum fuel and oils	5.6	5.3	5.3	5.3	5.4	6.0	6.2	5.6	6.4	7.4
Electricity	2.6	2.6	2.7	2.7	3.0	3.2	3.0	2.9	3.3	3.2
Other intermediate expenses	32.8	32.1	36.2	39.2	41.7	41.8	44.9	45.5	45.1	46.5
Repair and maintenance of capital items	8.6	8.5	9.2	9.1	9.5	10.3	10.4	10.4	10.3	10.5
Machine hire and customwork	3.5	3.8	4.4	4.8	4.8	4.7	4.9	5.5	5.5	5.7
Marketing, storage, and transportation	4.7	4.5	5.6	6.8	7.2	6.9	7.1	6.7	6.8	7.1
Contract labor	1.6	1.7	1.8	1.8	2.0	2.1	2.6	2.4	2.5	2.5
Miscellaneous expenses	14.3	13.6	15.2	16.7	18.3	17.8	19.8	20.5	20.0	20.7
Plus Net government transactions:	2.1	2.7	6.9	1.1	0.2	0.2	0.2	4.6	15.3	9.6
+ Direct government payments	8.2	9.2	13.4	7.9	7.3	7.3	7.5	12.2	22.7	17.2
- Motor vehicle registration and licensing fees	0.3	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.5	0.5
- Property taxes	5.8	6.1	6.2	6.3	6.6	6.7	6.9	7.2	6.9	7.0
<b>Gross value added</b>	<b>91.2</b>	<b>100.6</b>	<b>97.5</b>	<b>104.5</b>	<b>94.0</b>	<b>115.4</b>	<b>110.4</b>	<b>106.7</b>	<b>112.2</b>	<b>103.8</b>
Minus Capital consumption	18.2	18.3	18.4	18.6	18.9	19.2	19.3	19.4	19.2	18.9
<b>Net value added <sup>2</sup></b>	<b>73.0</b>	<b>82.3</b>	<b>79.2</b>	<b>85.8</b>	<b>75.1</b>	<b>96.2</b>	<b>91.1</b>	<b>87.2</b>	<b>92.9</b>	<b>84.9</b>
Minus Factor payments:	34.4	34.4	34.6	36.6	37.9	41.3	42.5	43.1	44.9	44.5
Employee compensation (total hired labor)	12.3	12.3	13.2	13.5	14.3	15.3	16.0	16.9	17.7	17.9
Net rent received by nonoperator landlords	9.9	11.1	10.7	11.5	11.0	13.0	12.9	12.0	13.6	12.9
Real estate and non-real estate interest	12.1	11.0	10.6	11.5	12.6	13.0	13.5	14.2	13.5	13.7
<b>Net farm income <sup>2</sup></b>	<b>38.7</b>	<b>47.9</b>	<b>44.5</b>	<b>49.2</b>	<b>37.2</b>	<b>54.9</b>	<b>48.6</b>	<b>44.1</b>	<b>48.1</b>	<b>40.4</b>

Values in last two columns are preliminary or forecast. 1. A positive value of inventory change represents current-year production not sold by December 1. A negative value is an offset to production from prior years included in current-year sales. 2. Final sector output is the gross value of commodities and services produced within a year. Net value added is the sector's contribution to the National economy and is the sum of income from production earned by all factors of production. Net farm income is farm operators' share of income from the sector's production activities. The concept presented is consistent with that employed by the Organization for Economic Cooperation and Development. Information contact: Roger Strickland (202)694-5592 or rogers@ers.usda.gov

Table 30-Farm Income Statistics

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
\$ billion										
<b>Cash income statement:</b>										
1. Cash receipts	167.9	171.3	177.9	181.3	188.1	199.1	207.6	196.8	191.9	189.9
Crops <sup>1</sup>	82.1	85.7	87.4	93.1	101.0	106.2	111.1	102.2	95.1	93.3
Livestock	85.8	85.6	90.4	88.2	87.1	93.0	96.5	94.5	96.9	96.5
2. Direct Government payments	8.2	9.2	13.4	7.9	7.3	7.3	7.5	12.2	22.7	17.2
3. Farm-related income <sup>2</sup>	8.3	8.1	9.0	9.1	10.5	11.0	12.4	13.8	14.4	14.1
4. Gross cash income (1+2+3)	184.3	188.6	200.3	198.2	205.8	217.4	227.5	222.8	229.1	221.1
5. Cash expenses <sup>3</sup>	134.0	133.3	141.0	147.1	153.2	159.9	169.0	167.8	170.0	171.5
<b>6. Net cash income (4-5)</b>	<b>50.4</b>	<b>55.2</b>	<b>59.3</b>	<b>51.1</b>	<b>52.6</b>	<b>57.5</b>	<b>58.5</b>	<b>54.9</b>	<b>59.1</b>	<b>49.7</b>
<b>Farm income statement:</b>										
7. Gross cash income (4)	184.3	188.6	200.3	198.2	205.8	217.4	227.5	222.8	229.1	221.1
8. Noncash income <sup>4</sup>	7.8	7.8	8.7	9.6	9.9	10.3	10.6	11.3	11.5	11.6
9. Value of inventory adjustment	-0.2	4.2	-4.2	8.3	-5.0	8.0	0.5	-1.0	-1.4	-0.1
10. Gross farm income (7+8+9)	191.9	200.5	204.8	216.1	210.7	235.7	238.7	233.1	239.1	232.7
11. Total production expenses	153.3	152.6	160.2	166.8	173.5	180.8	190.0	189.0	191.1	192.3

Values for last 2 years are preliminary or forecast. Numbers in parentheses indicate the combination of items required to calculate an item. Totals may not add due to rounding. 1. Includes commodities placed under CCC loans and profits made on loans redeemed. 2. Income from custom labor, machine hire, recreational activities, forest product sales, and other farm sources. 3. Excludes depreciation and perquisites to hired labor. Excludes farm operator dwellings. 4. Value of farm products consumed on farms where produced plus the imputed rental value of farm dwellings.

Information contact: Roger Strickland (202) 694-5592 or rogers@ers.usda.gov

Table 31-Average Income to Farm Operator Households <sup>1</sup>

	1992	1993	1994	1995	1996	1997	1998	1999	2000
\$ per farm									
Net cash farm business income <sup>2</sup>	11,320	11,248	11,389	11,218	13,502	12,676	14,357	--	--
Less depreciation <sup>3</sup>	5,187	6,219	6,466	6,795	6,906	6,578	7,409	--	--
Less wages paid to operator <sup>4</sup>	216	454	425	522	531	513	637	--	--
Less farmland rental income <sup>5</sup>	360	534	701	769	672	568	543	--	--
Less adjusted farm business income due to other household(s) <sup>6</sup>	961	872	815	649	1,094	1,505	1,332	--	--
\$ per farm operator household									
Equals adjusted farm business income	4,596	3,168	2,981	2,484	4,300	3,513	4,436	--	--
Plus wages paid to operator	216	454	425	522	531	513	637	--	--
Plus net income from farmland rental <sup>7</sup>	360	--	--	1,053	1,178	945	868	--	--
Equals farm self-employment income	5,172	3,623	3,407	4,059	6,009	4,971	5,941	--	--
Plus other farm-related earnings <sup>8</sup>	2,008	1,192	970	661	1,898	1,234	1,165	--	--
Equals earnings of the operator household from farming activities	7,180	4,815	4,376	4,720	7,906	6,205	7,106	6,469	2,975
Plus earnings of the operator household from off-farm sources <sup>9</sup>	35,731	35,408	38,092	39,671	42,455	46,358	52,628	54,443	56,375
Equals average farm operator household income	42,911	40,223	42,469	44,392	50,361	52,562	59,734	60,912	59,350
\$ per U.S. household									
U.S. average household income <sup>10</sup>	38,840	41,428	43,133	44,938	47,123	49,692	51,855	--	--
Percent									
Average farm operator household income as percent of U.S. average household income	110.5	97.1	98.5	98.8	106.9	105.8	115.2	--	--
Average operator household earnings from farming activities as percent of average operator household income	16.7	12.0	10.3	10.6	15.7	11.8	11.9	--	--

-- = Not available. F = forecast. 1. This table derives farm operator household income estimates from the Agricultural Resource Management Study (ARMS) that are consistent with Current Population Survey (CPS) methodology. The CPS, conducted by the Bureau of the Census, is the source of official U.S. household income statistics. The CPS defines income to include any income received as cash. The CPS definition departs from a strictly cash concept by including depreciation as an expense that farm operators and other self-employed people subtract from gross receipts when reporting net cash income. 2. A component of farm-sector income. Excludes income of contractors and landlords as well as the income of farms organized as nonfamily corporations or cooperatives, and farms run by a hired manager. Includes income of farms organized as proprietorships, partnerships, and family corporations. 3. Consistent with the CPS definition of self-employed income, reported depreciation expenses are subtracted from net cash farm income. The ARMS collects data on farm business depreciation used for tax purposes. 4. Wages paid to the operator are excluded because they are not shared among other households that have claims on farm business income. These wages are added to the operator household's adjusted farm business income to obtain farm self-employment income. 5. Gross rental income is excluded because net rental income from farm operation is added below to income received by the household. 6. More than one household may have a claim on the income of a farm business. On average, 1.1 households share the income of a farm business. 7. Includes net rental income from the farm business. Also includes net rental income from farmland held by household members that is not part of the farm business. In 1991 and 1992, gross rental income from the farm business was used because net rental income data were not collected. In 1993 and 1994, net rental income data were collected as part of off-farm income. 1994, net rental income data were collected as part of off-farm income. 8. Wages paid to other operator household members by the farm business, and net income from a farm business other than the one surveyed. In 1996, also includes the value of commodities provided to household members for farm work. 9. Wages, salaries, net income from nonfarm businesses, interest, dividends, transfer payments, etc. In 1993 and 1994, also includes net rental income from farmland. 10. From the CPS. Sources: U.S. Department of Agriculture, Economic Research Service, 1992, 1993, 1994, and 1995 Farm Costs and Returns Survey (FCRS), and 1996 and 1997 Agricultural Resource Management Study for farm operator household data. U.S. Department of Commerce, Bureau of the Census Current Population Survey (PCS), for average household income.

Information contact: Bob Hoppe (202) 694-5572 or rhoppe@econ.ag.gov

Table 32—Balance Sheet of the U.S. Farming Sector

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
\$ billion										
Farm assets	844.2	868.3	910.2	935.5	966.7	1,003.9	1,051.6	1,064.3	1,067.2	1,072.8
Real estate	624.8	640.8	677.6	704.1	740.5	769.5	808.4	822.8	831.1	835.2
Livestock and poultry <sup>1</sup>	68.1	71.0	72.8	67.9	57.8	60.3	67.1	62.0	60.8	60.7
Machinery and motor vehicles	85.9	85.4	86.5	87.5	88.5	88.9	89.0	88.6	86.9	86.3
Crops stored <sup>2,3</sup>	22.2	24.2	23.3	23.3	27.4	31.7	32.2	30.1	30.0	30.0
Purchased inputs	2.6	3.9	3.8	5.0	3.4	4.4	5.1	5.3	5.5	5.6
Financial assets	40.5	43.1	46.3	47.6	49.1	49.0	49.7	55.4	53.0	55.0
Total farm debt	139.2	139.1	142.0	146.8	150.8	156.1	165.4	172.9	172.8	172.5
Real estate debt <sup>3</sup>	74.9	75.4	76.0	77.7	79.3	81.7	85.4	89.6	90.3	90.8
Non-real estate debt <sup>4</sup>	64.3	63.6	65.9	69.1	71.5	74.4	80.1	83.2	82.5	81.7
Total farm equity	705.0	729.3	768.3	788.7	815.9	847.8	886.2	891.4	894.4	900.3
Percent										
Selected ratios										
Debt to equity	19.8	19.1	18.5	18.6	18.5	18.4	18.7	19.4	19.3	19.2
Debt to assets	16.5	16.0	15.6	15.7	15.6	15.6	15.7	16.2	16.2	16.1

Values in the last two columns are preliminary or forecast. 1. As of December 31. 2. Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3. Includes CCC storage and drying facilities loans, but excludes debt on operator dwellings. 4. Excludes debt for nonfarm purposes. Information contact: Ken Erickson (202) 694-5565 or [erickson@ers.usda.gov](mailto:erickson@ers.usda.gov)

Table 33—Cash Receipts from Farming

	Annual			1998			1999			
	1996	1997	1998	Nov	Jun	Jul	Aug	Sep	Oct	Nov
\$ million										
Commodity sales <sup>1</sup>	199,138	207,611	196,761	20,111	14,299	14,313	15,196	16,402	20,578	17,943
Livestock and products	92,956	96,535	94,539	8,941	8,062	8,044	8,584	8,389	8,344	9,119
Meat animals	44,154	49,682	43,604	3,755	4,257	3,419	4,573	4,249	4,425	4,559
Dairy products	22,785	20,940	24,312	2,283	1,790	1,837	2,022	2,074	2,051	1,920
Poultry and eggs	22,432	22,234	22,806	2,146	1,810	1,807	1,777	1,685	1,691	1,883
Other	3,585	3,679	3,816	757	206	981	212	380	177	759
Crops	106,182	111,076	102,222	11,170	6,237	6,268	6,612	8,014	12,234	8,823
Food grains	10,719	10,137	8,734	560	807	1,184	794	741	555	308
Feed crops	27,185	27,101	22,927	2,685	1,489	1,127	1,352	1,328	2,306	1,798
Cotton (lint and seed)	6,983	6,346	6,013	960	90	54	97	168	820	537
Tobacco	2,795	2,874	2,989	194	0	9	445	425	549	190
Oil-bearing crops	16,344	19,673	17,198	1,914	693	521	437	968	3,471	1,267
Vegetables and melons	14,439	14,961	15,337	914	1,425	1,413	1,596	1,535	1,452	835
Fruits and tree nuts	11,928	13,074	11,727	1,547	810	979	931	1,298	1,442	1,506
Other	15,789	16,909	17,297	2,396	923	982	959	1,553	1,638	2,383
Government payments	7,340	7,495	12,220	3,498	2,367	678	1,033	546	5,707	4,122
Total	206,478	215,107	208,981	23,609	16,666	14,990	16,229	16,948	26,284	22,065

Annual values for the most recent year are preliminary. 1. Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period. Information contacts: Larry Traub (202) 694-5593 or [ltraub@ers.usda.gov](mailto:ltraub@ers.usda.gov)  
To receive current monthly cash receipts via e-mail contact Larry Traub.



Table 34-Cash Receipts from Farm Marketings, by State

Region and State	Livestock and products				Crops <sup>1</sup>				Total <sup>1</sup>			
			Oct	Nov			Oct	Nov			Oct	Nov
	1997	1998	1999	1999	1997	1998	1999	1999	1997	1998	1999	1999
\$ million												
North Atlantic												
Maine	276	282	22	24	213	224	22	16	489	506	44	41
New Hampshire	68	69	6	7	84	82	8	7	153	151	14	14
Vermont	414	472	40	39	85	84	8	10	500	557	47	49
Massachusetts	114	112	9	10	417	395	44	63	531	507	53	73
Rhode Island	9	9	1	1	54	56	4	4	63	65	5	5
Connecticut	223	228	18	25	278	281	18	19	501	509	36	44
New York	1,828	2,092	171	188	1,007	1,054	97	79	2,836	3,146	268	266
New Jersey	168	178	11	29	626	650	53	59	794	828	64	87
Pennsylvania	2,808	2,914	241	260	1,324	1,261	106	123	4,132	4,175	347	384
North Central												
Ohio	1,875	1,848	164	185	3,361	3,124	414	285	5,237	4,973	578	470
Indiana	1,928	1,639	127	154	3,838	3,245	546	271	5,766	4,885	673	424
Illinois	1,928	1,575	130	135	7,055	6,167	686	217	8,984	7,742	816	352
Michigan	1,365	1,323	116	125	2,234	2,158	254	278	3,598	3,480	370	404
Wisconsin	4,066	4,492	412	384	1,721	1,701	182	249	5,787	6,193	594	633
Minnesota	3,992	3,755	295	314	4,006	3,925	442	390	7,998	7,680	737	704
Iowa	5,613	4,778	452	437	7,331	6,217	803	347	12,944	10,994	1,255	784
Missouri	2,771	2,420	247	234	2,631	2,262	300	184	5,402	4,682	547	418
North Dakota	598	549	85	53	2,668	2,455	277	320	3,267	3,004	362	372
South Dakota	1,781	1,557	172	182	2,401	1,951	379	156	4,182	3,508	551	338
Nebraska	5,508	5,124	459	568	4,295	3,725	378	252	9,803	8,848	837	820
Kansas	4,936	4,537	431	474	3,609	3,247	319	224	8,544	7,784	750	698
Southern												
Delaware	579	609	39	48	176	164	22	15	754	774	61	63
Maryland	928	949	67	86	607	571	63	52	1,535	1,520	130	138
Virginia	1,542	1,561	138	160	864	768	145	74	2,406	2,328	283	234
West Virginia	328	336	33	31	69	69	6	6	397	405	39	37
North Carolina	4,723	3,917	322	350	3,507	3,247	641	307	8,230	7,164	964	657
South Carolina	802	763	70	68	885	748	112	50	1,687	1,511	182	118
Georgia	3,402	3,408	259	253	2,350	2,047	445	159	5,752	5,454	704	411
Florida	1,400	1,407	148	154	5,116	5,355	222	302	6,516	6,762	370	457
Kentucky	1,972	2,134	189	408	1,571	1,787	79	161	3,543	3,920	268	568
Tennessee	1,028	1,038	123	120	1,245	1,177	144	98	2,273	2,216	267	218
Alabama	2,428	2,587	194	198	788	696	150	71	3,216	3,283	344	269
Mississippi	2,004	2,169	163	163	1,476	1,285	241	86	3,480	3,454	403	250
Arkansas	3,346	3,250	247	252	2,379	2,172	410	187	5,724	5,422	658	439
Louisiana	659	645	62	57	1,510	1,245	186	167	2,168	1,891	248	224
Oklahoma	3,036	2,838	262	321	1,138	1,062	67	54	4,174	3,900	329	375
Texas	8,147	8,220	640	833	5,060	4,986	451	397	13,208	13,206	1,091	1,230
Western												
Montana	965	865	102	111	1,058	934	70	90	2,023	1,799	171	201
Idaho	1,405	1,585	145	146	1,878	1,735	251	269	3,283	3,320	396	416
Wyoming	686	681	167	99	191	170	15	43	876	850	183	142
Colorado	2,875	2,857	293	298	1,303	1,453	112	126	4,177	4,310	404	424
New Mexico	1,366	1,437	141	140	551	513	51	58	1,917	1,950	192	198
Arizona	906	943	73	87	1,276	1,425	86	96	2,183	2,368	158	183
Utah	706	736	70	70	256	245	28	18	962	981	98	89
Nevada	187	194	19	15	136	143	15	14	322	337	34	29
Washington	1,622	1,730	143	156	3,747	3,424	462	350	5,370	5,155	605	506
Oregon	803	762	73	90	2,427	2,330	332	256	3,229	3,092	406	346
California	6,310	6,845	544	566	19,827	17,771	2,045	1,726	26,137	24,616	2,589	2,291
Alaska	28	27	2	2	21	20	2	2	49	47	4	4
Hawaii	86	92	8	8	424	418	38	36	510	510	46	44
U.S.	96,535	94,539	8,344	9,119	111,076	102,222	12,234	8,823	207,611	196,761	20,578	17,943

Annual values for the most recent year are preliminary. Estimates as of end of current month. Totals may not add because of rounding. 1. Sales of farm products include receipts from commodities placed under nonrecourse CCC loans, plus additional gains realized on redemptions during the period.

Information contact: Larry Traub (202) 694-5593 or ltraub@ers.usda.gov. To receive current monthly cash receipts via e-mail, contact Larry Traub.

Table 35-CCC Net Outlays by Commodity &amp; Function

	Fiscal year									
	1992	1993	1994	1995	1996	1997	1998	1999	2000 E	2001 E
	\$ million									
Commodity/Program										
Feed grains:										
Corn	2,105	5,143	625	2,090	2,021	2,587	2,873	5,402	8,744	4,444
Grain sorghum	190	410	130	153	261	284	296	502	706	330
Barley	174	186	202	129	114	109	168	224	286	110
Oats	32	16	5	19	8	8	17	41	38	37
Corn and oat products	9	10	10	1	0	0	0	0	0	0
Total feed grains	2,510	5,765	972	2,392	2,404	2,988	3,354	6,169	9,774	4,922
Wheat and products	1,719	2,185	1,729	803	1,491	1,332	2,187	3,435	4,095	1,737
Rice	715	887	836	814	499	459	491	911	1,170	625
Upland cotton	1,443	2,239	1,539	99	685	561	1,132	1,882	2,697	1,300
Tobacco	29	235	693	-298	-496	-156	376	113	297	-314
Dairy	232	253	158	4	-98	67	291	480	356	108
Soybeans	-29	109	-183	77	-65	5	139	1,289	2,809	3,355
Peanuts	41	-13	37	120	100	6	-11	21	35	-1
Sugar	-19	-35	-24	-3	-63	-34	-30	-51	0	1
Honey	17	22	0	-9	-14	-2	0	2	1	-4
Wool and mohair	191	179	211	108	55	0	0	10	2	-13
Operating expense <sup>1</sup>	6	6	6	6	6	6	5	4	61	5
Interest expenditure	532	129	-17	-1	140	-111	76	210	627	704
Export programs <sup>2</sup>	1,459	2,193	1,950	1,361	-422	125	212	165	613	694
1988/99 Disaster/tree/ livestock assistance	1,054	944	2,566	660	95	130	3	2,241	1,552	2
Conservation Reserve Program	0	0	0	0	2	1,671	1,693	1,462	1,610	1,690
Other conservation programs	0	0	0	0	7	105	197	292	381	305
Other	-162	949	-137	-103	320	104	28	588	881	252
Total	9,738	16,047	10,336	6,030	4,646	7,256	10,143	19,223	26,961	15,367
Function										
Price support loans (net)	584	2,065	527	-119	-951	110	1,128	1,455	1,673	1,079
Cash direct payments: <sup>3</sup>										
Production flexibility contract	0	0	0	0	5,141	6,320	5,672	5,476	5,049	4,057
Market loss assistance	0	0	0	0	0	0	0	3,011	6,062	0
Deficiency	5,491	8,607	4,391	4,008	567	-1,118	-7	-3	0	0
Diversion	0	0	0	0	0	0	0	0	0	0
Dairy termination	2	0	0	0	0	0	0	0	0	0
Loan deficiency	214	387	495	29	0	0	478	3,360	7,222	6,374
Other	140	149	171	97	95	7	416	281	501	355
Conservation Reserve Program	0	0	0	0	2	1,671	1,693	1,435	1,574	1,690
Other conservation programs	0	0	0	0	0	85	156	247	331	252
Noninsured Assistance (NAP)	0	0	0	0	2	52	23	54	75	86
Total direct payments	5,847	9,143	5,057	4,134	5,807	7,017	8,431	13,861	20,814	12,814
1988-99 crop disaster	960	872	2,461	577	14	2	-2	1,913	1,342	0
Emergency livestock/tree/DRAP livestock indemn/forage assist.	94	72	105	83	81	128	5	328	210	2
Purchases (net)	321	525	293	-51	-249	-60	207	668	332	-107
Producer storage payments	14	9	12	23	0	0	0	0	0	0
Processing, storage, and transportation	185	136	112	72	51	33	38	62	61	54
Export donations ocean transportation	139	352	156	50	69	34	40	323	291	161
Operating expense <sup>1</sup>	6	6	6	6	6	6	5	4	61	5
Interest expenditure	532	129	-17	-1	140	-111	76	210	627	704
Export programs <sup>2</sup>	1,459	2,193	1,950	1,361	-422	125	212	165	613	694
Other	-403	545	-326	-105	100	-28	3	234	937	-39
Total	9,738	16,047	10,336	6,030	4,646	7,256	10,143	19,223	26,961	15,367

E = Estimated in FY 2001 President's Budget which was released on February 7, 2000 based on November 1999 supply and demand estimates. The CCC outlays in 1996-2002 include the impact of the Federal Agriculture Improvement and Reform Act of 1996, which was enacted April 4, 1996. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

1. Does not include CCC Transfers to General Sales Manager. 2. Includes Export Guarantee Program, Direct Export Credit Program, CCC Transfers to the General Sales Manager, Market Access (Promotion) Program, starting in FY 1991 and starting in FY 1992 the Export Guarantee Program - Credit Reform, Export Enhancement Program, Dairy Export Incentive Program, and Technical Assistance to Emerging Markets, and starting in FY 2000 Foreign Market Development Cooperative Program and Quality Samples Program. 3. Includes cash payments only. Excludes generic certificates in FY 86-96. Information contact: Richard Pazdalski/Farm Service Agency-Budget at (202) 720-3675 or Richard\_Pazdalski@wdc.fsa.usda.gov. Further detail can be found at [www.fsa.usda.gov/dam/BUD/bud1.htm](http://www.fsa.usda.gov/dam/BUD/bud1.htm)

## Food Expenditures

**Table 36-Food Expenditures**

New data will be published in the April issue of Agricultural Outlook

## Transportation

**Table 37-Rail Rates; Grain & Fruit-Vegetable Shipments**

	Annual			1998	1999					
	1997	1998	1999 P	Dec	Jul R	Aug	Sep R	Oct R	Nov	Dec P
Rail freight rate index <sup>1</sup> (Dec. 1984=100)										
All products	112.1	113.4	113.0	113.2	113.1	112.7	113.3	113.4	113.3	113.3
Farm products	120.3	123.9	122.0	121.2	120.3	121.4	122.9	124.7	123.1	123.1
Grain food products	107.6	107.4	99.3	107.2	99.3	99.3	100.4	99.3	99.3	100.4
Grain shipments										
Rail carloadings (1,000 cars) <sup>2</sup>	23.2	22.8	24.4	24.6	24.6	26.5	25.9	28.3	24.5	23.8
Barge shipments (mil. ton) <sup>3,4</sup>	2.6	3.0	3.5	3.5	4.3	3.8	2.7	3.8	4.2	3.6
Fresh fruit and vegetable shipments <sup>5</sup>										
Piggy back (mil. cwt)	1.1	0.9	0.7	0.9	0.8	0.8	0.8	0.6	0.8	0.7
Rail (mil. cwt)	1.7	1.2	1.1	1.4	0.9	0.5	0.9	1.3	1.7	1.8
Truck (mil. cwt)	42.6	42.2	44.3	40.5	45.8	42.2	37.5	42.3	43.3	42.1

P= Preliminary. R = Revised. -- = Not available. 1. Department of Labor, Bureau of Labor Statistics. 2. Weekly average; from Association of American Railroads. 3. Shipments on Illinois and Mississippi waterways, U.S. Corps of Engineers. 4. Annual 1996 is 7-month average. 5. Agricultural Marketing Service, USDA. Information contact: Jenny Gonzales (202) 694-5296

## Indicators of Farm Productivity

Table 38-Indexes of Farm Production, Input Use, & Productivity <sup>1</sup>

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
	1992=100									
Farm output	88	83	89	94	94	100	94	107	101	106
All livestock products	92	93	94	95	98	100	100	108	110	109
Meat animals	95	97	97	96	99	100	100	102	103	100
Dairy products	94	96	95	98	98	100	99	114	115	115
Poultry and eggs	81	83	86	92	96	100	104	110	114	119
All crops	86	75	86	92	92	100	90	106	96	103
Feed crops	84	62	85	88	86	100	76	102	83	98
Food crops	84	76	83	107	82	100	96	97	90	93
Oil crops	88	72	88	87	94	100	85	115	99	107
Sugar	95	91	91	92	96	100	95	106	98	94
Cotton and cottonseed	92	96	75	96	109	100	100	122	110	117
Vegetables and melons	90	81	85	93	97	100	97	113	108	112
Fruit and nuts	95	102	98	97	96	100	107	111	102	102
Farm input <sup>1</sup>	101	100	100	101	102	100	101	102	101	100
Farm labor	101	103	104	102	106	100	96	96	92	100
Farm real estate	100	100	102	101	100	100	98	99	98	99
Durable equipment	120	113	108	105	103	100	97	94	92	89
Energy	102	102	101	100	101	100	100	103	109	104
Fertilizer	106	97	94	97	98	100	111	109	85	89
Pesticides	92	79	93	90	100	100	97	103	94	106
Feed, seed, and purchased livestock	97	96	91	99	99	100	101	102	109	95
Inventories	102	98	93	97	100	100	104	99	108	104
Farm output per unit of input	87	83	90	93	92	100	94	105	100	106
Output per unit of labor										
Farm <sup>2</sup>	87	81	86	92	89	100	98	111	110	106
Nonfarm <sup>3</sup>	95	95	96	96	97	100	100	101	--	--

-- = Not available. Values for latest year preliminary. 1. Includes miscellaneous items not shown separately. 2. Source: Economic Research Service.

3. Source: Bureau of Labor Statistics. Information contact: John Jones (202) 694-5614

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## Food Supply & Use

Table 39-Per Capita Consumption of Major Food Commodities <sup>1</sup>

Commodity	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
	<i>Lbs.</i>									
Red meats <sup>2,3,4</sup>	115.9	112.3	111.9	114.1	112.2	114.7	115.1	112.8	111.0	115.6
Beef	65.4	63.9	63.1	62.8	61.5	63.6	64.4	65.0	63.8	64.9
Veal	1.0	0.9	0.8	0.8	0.8	0.8	0.8	1.0	0.9	0.7
Lamb & mutton	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.8	0.8	0.9
Pork	48.4	46.4	46.9	49.5	48.9	49.5	49.0	45.9	45.6	49.1
Poultry <sup>2,3,4</sup>	53.9	56.3	58.3	60.8	62.5	63.3	62.9	64.1	64.2	65.0
Chicken	40.9	42.4	44.2	46.7	48.5	49.3	48.8	49.5	50.4	50.8
Turkey	13.1	13.8	14.1	14.1	14.0	14.1	14.1	14.6	13.9	14.2
Fish and shellfish <sup>3</sup>	15.6	15.0	14.8	14.7	14.9	15.1	14.9	14.7	14.5	14.8
Eggs <sup>4</sup>	30.5	30.2	30.1	30.3	30.4	30.6	30.3	30.6	30.7	32.0
Dairy products										
Cheese (excluding cottage) <sup>2,5</sup>	23.8	24.6	25.0	26.0	26.2	26.8	27.3	27.7	28.0	28.4
American	11.0	11.1	11.1	11.3	11.4	11.5	11.8	12.0	12.0	12.2
Italian	8.5	9.0	9.4	10.0	9.8	10.3	10.4	10.8	11.0	11.3
Other cheeses <sup>6</sup>	4.3	4.5	4.6	4.7	5.0	5.0	5.0	5.0	5.0	4.8
Cottage cheese	3.6	3.4	3.3	3.1	2.9	2.8	2.7	2.6	2.7	2.7
Beverage milks <sup>2</sup>	224.2	221.8	221.1	218.3	213.4	213.6	209.8	210.0	206.9	204.5
Fluid whole milk <sup>7</sup>	97.5	90.4	87.3	84.0	80.1	78.8	75.3	74.6	72.7	71.6
Fluid lower fat milk <sup>8</sup>	106.5	108.5	109.9	109.3	106.6	106.0	102.6	101.7	99.9	98.5
Fluid skim milk	20.2	22.9	23.9	25.0	26.7	28.8	31.9	33.7	34.3	34.4
Fluid cream products <sup>9</sup>	7.8	7.6	7.7	8.0	8.0	8.1	8.4	8.7	9.0	9.2
Yogurt (excluding frozen)	4.2	4.0	4.2	4.2	4.3	4.7	5.1	4.8	5.2	5.1
Ice cream	16.1	15.8	16.3	16.3	16.1	16.1	15.7	15.9	16.4	16.6
Lowfat ice cream <sup>10</sup>	8.4	7.7	7.4	7.1	6.9	7.6	7.5	7.6	7.9	8.3
Frozen yogurt	2.0	2.8	3.5	3.1	3.5	3.5	3.5	2.6	2.1	1.9
All dairy products, milk equivalent, milkfat basis <sup>11</sup>	563.8	568.4	565.6	565.9	574.1	586.0	583.9	574.7	577.7	582.3
Fats and oils--total fat content	60.5	63.0	64.8	66.8	69.7	68.0	66.4	65.3	64.9	65.3
Butter and margarine (product weight)	14.6	15.3	15.0	15.4	15.8	14.8	13.7	13.5	12.8	12.5
Shortening	21.5	22.2	22.4	22.4	25.1	24.1	22.5	22.3	20.9	20.9
Lard and edible tallow (direct use)	1.8	2.2	1.8	3.5	3.4	4.2	4.4	4.8	4.1	5.2
Salad and cooking oils	24.4	25.3	26.4	27.2	26.9	26.2	26.9	26.2	28.6	27.9
Fruits and vegetables <sup>12</sup>	656.0	656.1	650.3	677.7	691.3	705.8	694.3	710.9	717.9	699.6
Fruit	278.0	272.6	255.3	283.8	283.1	291.0	284.8	290.2	296.8	281.4
Fresh fruits	122.9	116.3	113.0	123.5	124.5	126.3	124.1	128.1	131.9	131.8
Canned fruit	21.2	21.0	19.8	22.9	20.7	21.0	17.5	18.8	20.4	17.3
Dried fruit	13.2	12.1	12.3	10.8	12.6	12.8	12.8	11.3	10.8	12.8
Frozen fruit	4.1	3.8	3.8	3.9	3.7	3.8	4.2	4.0	3.7	4.2
Selected fruit juices	116.4	119.0	106.0	122.1	121.2	126.7	125.8	127.7	129.3	115.0
Vegetables	378.0	383.5	395.0	393.9	408.3	414.7	409.5	420.7	421.1	418.1
Fresh	172.2	167.1	167.4	171.1	178.2	184.6	179.1	184.1	190.4	186.5
Canning	102.4	111.6	114.4	112.2	112.9	112.4	110.8	109.5	107.8	108.0
Freezing	67.4	66.8	72.6	70.9	76.0	78.4	79.9	84.7	81.9	82.3
Dehydrated and chips	29.8	31.0	32.8	31.5	33.6	31.0	31.3	34.5	32.7	32.9
Pulses	6.3	7.1	7.8	8.1	7.7	8.4	8.4	8.0	8.3	8.4
Peanuts (shelled)	7.0	6.0	6.5	6.2	6.1	5.8	5.7	5.7	5.9	5.9
Tree nuts (shelled)	2.2	2.4	2.2	2.2	2.4	2.3	1.9	2.0	2.1	2.3
Flour and cereal products <sup>13</sup>	174.2	181.5	183.0	185.5	190.1	192.9	191.3	197.4	198.9	--
Wheat flour	129.8	136.0	137.0	138.9	143.3	144.4	141.9	148.7	149.5	147.8
Rice (milled basis)	14.8	15.8	16.2	16.7	16.7	18.1	18.9	17.8	18.5	18.9
Caloric sweeteners <sup>14</sup>	133.1	137.0	137.9	141.2	144.4	147.4	149.9	150.7	154.1	--
Coffee (green bean equiv.)	10.1	10.3	10.3	10.0	9.1	8.2	8.0	8.9	9.3	--
Cocoa (chocolate liquor equiv.)	4.0	4.3	4.6	4.6	4.3	3.9	3.6	4.2	4.1	--

-- = Not available. 1. In pounds, retail weight unless otherwise stated. Consumption normally represents total supply minus exports, nonfood use, and ending stocks. Calendar-year data, except fresh citrus fruits, peanuts, tree nuts, and rice, which are on crop-year basis. 2. Totals may not add due to rounding. 3. Boneless, trimmed weight. Chicken series revised to exclude amount of ready-to-cook chicken going to pet food as well as some water leakage that occurs when chicken is cut up before packaging. 4. Excludes shipments to the U.S. territories. 5. Whole and part-skim milk cheese. Natural equivalent of cheese and cheese products. 6. Includes Swiss, Brick, Muenster, cream, Neufchatel, Blue, Gorgonzola, Edam, and Gouda. 7. Plain and flavored. 8. Plain and flavored, and buttermilk. 9. Heavy cream, light cream, half and half, eggnog, sour cream, and dip. 10. Formerly known as ice milk. 11. Includes condensed and evaporated milk and dry milk products. 12. Farm weight. 13. Includes rye, corn, oats, and barley products. Excludes quantities used in alcoholic beverages, corn sweeteners, and fuel. 14. Dry weight equivalent.

Information contact: Jane E. Allshouse (202) 694-5414