

1-1997

FAPRI 1997 U.S. Agricultural Outlook

William H. Meyers
Iowa State University

Dermot J. Hayes
Iowa State University, dhayes@iastate.edu

Darnell B. Smith
Iowa State University

Samarendu Mohanty
Iowa State University, smohant@iastate.edu

Sudhir Chaudhary
Iowa State University

See next page for additional authors

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Recommended Citation

Meyers, William H.; Hayes, Dermot J.; Smith, Darnell B.; Mohanty, Samarendu; Chaudhary, Sudhir; Elmore, Steven L.; Fabiosa, Jacinto F.; Fuller, Frank; Hart, Chad; Kovarik, Karen; Premakumar, Velupillai; Rude, James; Shaw, Ian; Kakani, Dharmaraju; Karnum, Chandrashekar; Womack, Abner W.; Young, Robert E. II; Suhler, Gregg; Trujillo, Joe; Brown, D. Scott; Adams, Gary M.; Thompson, Wyatt; Wilcox, Lori; Westhoff, Patrick C.; Smith, Kevin; Zimmel, Peter T.; and Pagonda, Jose, "FAPRI 1997 U.S. Agricultural Outlook" (1997). *FAPRI Staff Reports*. 14.
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FAPRI 1997 U.S. Agricultural Outlook

Abstract

The Food and Agricultural Policy Research Institute develops a long-term outlook for the world agricultural sector once each year. While the initial steps to develop the new baseline start as soon as the previous year's baseline is completed, the work begins in earnest in September and October with a discussion of policy and macroeconomic assumptions as well as a review of the models to be used in the upcoming exercise. The preliminary baseline is developed in November and that preliminary baseline is then shared among a number of reviewers. During the first or second week of January, more than 100 respondents are brought together for a two-day review process. Each segment of the baseline is presented and examined in a frank and open exchange of views. Subsequent to that review, the preliminary baseline is finalized.

Keywords

Agriculture, Policy, Domestic economics

Disciplines

Agricultural and Resource Economics | Agriculture | Economic Policy | Regional Economics

Authors

William H. Meyers, Dermot J. Hayes, Darnell B. Smith, Samarendu Mohanty, Sudhir Chaudhary, Steven L. Elmore, Jacinto F. Fabiosa, Frank Fuller, Chad Hart, Karen Kovarik, Velupillai Premakumar, James Rude, Ian Shaw, Dharmaraju Kakani, Chandrashekar Karnum, Abner W. Womack, Robert E. Young II, Gregg Suhler, Joe Trujillo, D. Scott Brown, Gary M. Adams, Wyatt Thompson, Lori Wilcox, Patrick C. Westhoff, Kevin Smith, Peter T. Zimmel, and Jose Pagonda

FAPRI U.S. Agricultural Outlook

This publication contains recent baseline projections produced by the Food and Agricultural Policy Research Institute (FAPRI) for the U.S. agricultural sector and international commodity markets. These projections serve as a baseline for evaluating and comparing alternative macroeconomic, policy, weather, and technological scenarios. They are intended for use by farmers, government agencies and officials, agribusinesses, and others who do medium-range and long-term planning.

FAPRI baseline projections are grounded on a series of assumptions about the general economy, agricultural policies, the weather, and technological change. The projections represent one possible scenario, consistent with the set of selected assumptions. Macroeconomic assumptions are based on forecasts prepared by the WEFA Group and Project LINK. *It is generally assumed that current agricultural policies will be continued in the United States and other trading nations.* The 1996 Federal Agriculture Improvement and Reform (FAIR) Act policies are incorporated in this baseline; no EU enlargement and no further CAP reforms are assumed. Average weather conditions and historical rates of technological change are also assumed to prevail during the projection period.

FAPRI recognizes that the Agricultural Outlook is the result of efforts made by numerous individuals. This includes many USDA employees from several agencies within the department. We have also followed advice and counsel from individuals throughout the land grant and other university systems, as well as several extension specialists. Industry experts have also contributed by pointing out errors and areas of concern. We acknowledge and appreciate the help of numerous individuals, but we take full responsibility for any errors that may appear.

The projections included in this outlook were prepared in January 1997
based on the best information available at that time.

For a detailed look at world markets, see FAPRI Staff Report #2-97,
FAPRI 1997 World Agricultural Outlook.

**FAPRI
1997 U.S.
Agricultural Outlook**

Staff Report #1-97

January 1997

Food and Agricultural Policy Research Institute

Iowa State University
University of Missouri-Columbia

FAPRI

Iowa State University

William H. Meyers
Dermot J. Hayes
Darnell B. Smith
Samarendu Mohanty
Sudhir Chaudhary
Steve Elmore
Jay Fabiosa
Frank Fuller
Chad Hart
Karen Kovarik
V. Premakumar
James Rude
Ian Shaw
Dharmaraju Kakani
Chandrashekar Karnum

University of Missouri-Columbia

Abner W. Womack
Robert E. Young II
Gregg Suhler
Joe Trujillo
D. Scott Brown
Gary M. Adams
Wyatt Thompson
Lori Wilcox
Brian Willott
Pat Westhoff
Kevin Smith
Peter Zimmel
Jose Pagonda

This material is based upon work supported by the Cooperative State Research Education and Extension Service, U.S. Department of Agriculture, under Agreement No. 96-34149-2533.

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the view of the U.S. Department of Agriculture.

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Abbreviations and Acronyms

This list of abbreviations and acronyms used in the *Agricultural Outlook* is provided for the convenience of our readers. Abbreviations and acronyms typically are not spelled out in the text.

ARP	Acreege Reduction Program
APEC	Asia Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
CAP	Common Agricultural Policy
CBO	Congressional Budget Office
CCC	Commodity Credit Corporation
CEE	Central Eastern Europe
CIF	Cost, Insurance, and Freight
COP	Cereals, Oilseeds, and Protein Crops
CPI	Consumer Price Index
CRP	Conservation Reserve Program
cwt	hundredweight
DEIP	Dairy Export Incentive Program
EEP	Export Enhancement Program
EU	European Union
ECU	European currency unit
FACTA-90	Food, Agriculture, Conservation, and Trade Act of 1990
FAIR Act	Federal Agriculture Improvement and Reform Act of 1996
FAPRI	Food and Agricultural Policy Research Institute
FOB	free on board
FOR	Farmer-Owned Reserve
FSU	Former Soviet Union
GATT	General Agreement on Tariffs and Trade
GRIP	Gross Revenue Insurance Plan
GDP	gross domestic product
ha	hectare
HFCS	high-fructose corn syrup
HRW	hard red winter
MAP	Market Access Program
MERCOSUR	The Common Market of the Southern Cone of South America
MGA	maximum guaranteed area
MGQ	maximum guaranteed quantity
mha	million hectares
mmt	million metric tons
mt	metric ton
NAFTA	North American Free Trade Agreement
NFA	net flexed area
NFD	nonfat dry milk
NPQ	nominal price quotes
PLD	Paid Land Diversion
PROCAMPO	Mexican direct income support program
rBST	recombinant bovine somatotropin
ROW	Rest-of-World
tmt	thousand metric tons
TRQ	tariff rate quota
WGTA	Western Grain Transportation Act
WTO	World Trade Organization

Overview of the 1997 U.S. Outlook

The Food and Agricultural Policy Research Institute develops a long-term outlook for the world agricultural sector once each year. While the initial steps to develop the new baseline start as soon as the previous year's baseline is completed, the work begins in earnest in September and October with a discussion of policy and macroeconomic assumptions as well as a review of the models to be used in the upcoming exercise. The preliminary baseline is developed in November and that preliminary baseline is then shared among a number of reviewers. During the first or second week of January, more than 100 respondents are brought together for a two-day review process. Each segment of the baseline is presented and examined in a frank and open exchange of views. Subsequent to that review, the preliminary baseline is finalized.

This is a lengthy process, but one that by design incorporates a number of checks and balances in order to allow us to produce the soundest baseline we can. It allows those constructing the models to have a clear perspective of what is going on in their respective sectors of the industry. It also lets us access those with particular sector knowledge and gives a forum for bringing that intelligence into a system that looks at the whole of agriculture, not just one specific component.

It is always important to understand the difference between a baseline and a forecast. This baseline assumes that policies currently in place remain throughout the 10-year period. The 1996 Federal Agriculture Improvement and Reform Act (FAIR), for example, remains in effect throughout the baseline, but at support levels specified in 2002 for years after the current authorization. Under a forecast, any number of different policy alternatives could be postulated. Further, under a baseline, normal weather is assumed, which generates essentially trend yields. A forecast, particularly in the short term, may consider a number of other scenarios or paths for yield expectations. A baseline also assumes that the political situation remains fairly stable around the world and that what regional conflicts might arise are fairly limited.

These assumptions play an important role in baseline development and uncertainty regarding those assumptions always exists. For example, CRP and EU policy assumptions have a significant impact on baseline projects, and uncertainty always exists for policy and other variables.

The Baseline Outlook

The drivers in this year's baseline are fairly easy to understand. Over the last 10 years, world economic growth has proceeded somewhat in fits and starts. The countries of the Former Soviet Union have gone through a significant reduction in overall economic activity, while China has demonstrated major improvements. Countries in South America went through policy reform in order to rein in double and triple digit inflation. Africa as well has undergone policy reforms in a number of countries as aid monies have shifted their focus.

With these policy changes now in place, and as the world is now more familiar with the political landscape in the aftermath of the cold war, the next 10 years are expected to demonstrate a major improvement in the economies of the less-developed countries. While overall world economic growth is not expected to show that much of a change in the next 10 years, the developing countries should show a major improvement. Latin America, for example, is expected to demonstrate real GDP growth of over 4.5 percent. Former Soviet Union countries, after years of contraction are also expected to show growth in the 5 percent range. Nations in Asia are also anticipated to expand at rates in the 7 to 7.5 percent range, with China growing by more than 8 percent per year throughout the projection. Even African countries should approach the 5 percent real GDP growth rate level. This relatively strong economic growth, particularly in countries with comparably low incomes, should lead to a significant change in world food consumption patterns over the next 10 years. These changes in diets have been going on for some time, but are expected to gain momentum over the coming 10-year period with this overall economic improvement.

This change in diet will likely move many of these countries toward increased animal protein consumption. Further, these animals will need to be fed both grains and protein meals. Consequently, this baseline presents a fairly optimistic view of growth in world demand for meats, feed grains, and oilseeds. This is particularly true for agriculture in the United States as it supplies at least a portion of the growth in world demand for meats and is especially true as the United States continues to dominate world feed-grain markets.

This is also the first full year that producers will be able to make production decisions under the FAIR Act of 1996. Given that the act was not passed until April 1996—complete closing out crops planted in fall 1995— even

many spring-planted crop producers had already made their decisions for the 1996 crop well before the act became law. Producers have now had an opportunity to spend the past year looking at the law and have been reevaluating their planting patterns and other production factors. Producers gave an indication of the kinds of determinations they would like to make under the past farm bill on their normal flex acres. While behavior on these acres was probably more pronounced than would be expected on this kind of total acreage, it did indicate more willingness to shift acreage and react to price than was the case under earlier farm bills.

This new legislation then will likely see producers move more to market signals than has been the case, but it will take a few more observations before getting a more complete picture of their future behavior. The supply responsiveness included in this baseline is somewhere between the earlier levels and the levels indicated on previous normal flex acres.

In general, the outlook is fairly optimistic. With the growing world demand for meats, feed grains and protein meals, the United States is fairly well positioned with resources and—with the 1996 legislation—policies to take advantage of this growth in world markets. As such, excluding policy assumptions such as CRP and EU assumptions, the baseline is dominated by the growth in world demand for these products and how other commodities perform relative to this demand pull. For some commodities, the demand growth is not as strong as is present for the feed grain/oilseed sector and area is expected to move marginally out of these other crops into the feed grain/oilseed area. In general however, net farm income should move back to the near record levels of 1996 before the end of the century, and then remain above the \$50 billion mark for several years of the next decade.

Feed Grains

As already discussed, the United States is well positioned to provide feed grains as an input into this growing world demand for meat and animal proteins, particularly for corn. World trade in feed grains is expected to move from 76 million metric tons (mmt) with the 1995/96 crop year to 105.6 mmt by 2005/06 crop year. China will provide a significant portion of this increase, moving from 2.8 mmt of imports in 1995/96 to 18.6 mmt in 2005/06. Japan has clearly matured as a market for feed grains. Imports there should move from 20 mmt in 1995/96 to 18.5 mmt by the end of the period. Other growth markets beyond China include Brazil, Mexico, Indonesia, and Thailand. While Mexican imports were large in 1995/96, they are

expected to return to more normal levels with the 1996/97 marketing year. From the 5.7 mmt import level expected for 1996/97, feed grain shipments should reach 9.3 mmt by 2005/06. Further, Brazil should increase its needs from 0.8 mmt in 1995/96 to 3.1 mmt by the end of the period. Indonesia and Thailand also show increases of more than 2 mmt of import needs over the period.

On the exporter side, Australia is expected to reduce its feed-grain trade as barley consumption increases in the domestic market. Canadian production should also demonstrate some declines with competition from canola, unsubsidized wheat prices, and other factors. The European Union, on the other hand, is expected to increase feed-grain exports slightly, with South Africa getting close to a net importer position by the end of the projection.

All this places the United States in a position to increase trade share between the 1996/97 crop year and 1999/00. From the end of the decade through the end of the analysis period, the United States is able to hold feed-grain trade share in the 78 to 80 percent range, increasing its overall exports from 57.6 mmt in 1995/96 to 83.1 mmt in 2005/06.

With the strength in export markets and the new farm program structure, corn plantings are expected to move from the 79.5 million acres observed in the 1996/97 growing season to 83.7 million acres by the end of the projection period. Demand and price strengthen in the corn market, attracting acreage from some of the other commodities. With trend growth in yields, adjusted for changes in area planted, corn production should exceed 10 billion bushels with the 2001/02 crop, and is at 10.9 billion bushels by the end of the period. Feed utilization continues to dominate the usage categories at levels well above 5 billion bushels throughout, nearing 5.8 billion bushels at the end of the period. Fuel alcohol use should rise markedly for the 1996/97 marketing year as prices return to more normal levels and plants are able to stay on line during the entire marketing year as opposed to 1995/96 marketing year conditions. The baseline assumes continuation of the excise tax exemption for ethanol, raising usage in this category to 664 million bushels by the end of the period. Fructose sweetener usage should improve modestly at rates just slightly higher than population growth, as is the case for other food uses.

Stocks of corn should recover with the 1996/97 marketing year, although they are expected to remain below 1 billion bushels. With higher planting levels in 1997/98, corn

stocks are expected to rise to 1.36 billion bushels and hold in the 1.3 to 1.4 billion bushel range through the remainder of the projection period.

Corn prices are expected to fall with the 1997/98 marketing year to a \$2.37 per bushel season average, then begin to show modest strength starting with the 1999/00 crop year. By the end of the period, nominal corn prices should approach \$2.82 per bushel.

Sorghum acreage will hold its own under the new program. Planting reached 13.2 million acres in 1996/97, due mainly to weather problems with the winter wheat crop in Kansas. For the 1997/98 crop year, acreage is expected to return to more normal levels of 11 million acres, and hold in the 11 to 11.5 million acre range through the remainder of the period. Sorghum production is expected to return to more normal levels in 1997/98 of 640 million bushels, growing to 703 million bushels by the end of the period with yield and area growth. Feed utilization should hold in the 400 million bushel range, with exports growing from 225 million bushels in 1996/97 to 306 million by 2005/06. Sorghum prices follow corn, dipping in 1997/98 and 1998/99 then strengthening through the remainder of the projection.

Barley area also holds at the 7.2 to 7.4 million acre level, with exports moving in the 50 to 60 million bushel range. Feed use is also expected to move through a narrow range of 230 to 250 million bushels. Barley prices do not move up to the same degree observed in corn or sorghum prices due to the competition in the export markets from the European Union and other countries.

Oat harvesting drops from 4.7 million acres in 1996/97 to 3.8 million acres by the end of the period. Imports make up some of the difference and oat feed usage also declines. This decline in usage and increase in imports puts pressure on oat prices through much of the period, keeping oat prices in the \$1.35 to \$1.45 per bushel range.

Food Grains

While wheat planted area is off by more than 5 million acres in 1997/98 compared with 1996/97, harvested area is down by only 0.8 million acres. In 1996/97, the weather problems in southern Kansas and northern Oklahoma moved some producers to plow up wheat and plant sorghum. Yield improvements should more than make up that difference, with total supplies of wheat up by more than 100 million bushels in 1997/98 compared with 1996/97 levels. Wheat beginning stocks are expected to grow by nearly 100 million bushels for the 1997/98 crop,

giving total supplies of wheat in 1997/98 of 220 million bushels more than 1996/97 quantities. This increase in supply, coupled with somewhat weak export markets, is expected to put substantial pressure on wheat prices for the 1997/98 marketing year. This should keep wheat plantings in the 73 million acre range until the end of the century. Food usage is expected to move up only by population growth through the entire projection, with feed use holding in the 325 to 350 million bushel range. Exports recover through the end of the century, then stagnate as the EU is able to export product without using a subsidy. This modest growth in domestic utilization and the flat export markets translates to wheat area that shows very little growth from 2000/01 through the remainder of the projection. Wheat area move between 74.5 and 75.5 million acres in nearly all years beyond the turn of the century, with area moving down in the last two years.

This pressure on area comes from weak demand for U.S. wheat. Wheat prices move up in 1999/00 and again in 2001/02, but hold in the \$3.70 to \$3.80 per bushel range through the last half of the projection. These prices are not strong enough to hold land in wheat, or to capture any additional acreage given the strength in the feed-grain and oilseed markets. Consequently, there is pressure on wheat plantings.

The rice story is also told on the supply side of the picture. The new farm program allows producers to receive market transition payments regardless of whether they plant the original program crop. For rice, these payments can amount to more than \$100 per acre. Under earlier legislation, producers were required to devote land to rice production to receive these payments. The new payments no longer require the producers to plant rice. This places producers in a position where they are comparing market returns for rice with market returns for other crops that compete for the same land. Rice area then is expected to move down from 1997/98 through the rest of the baseline. Domestic utilization of rice is expected to grow above population growth rates through the period, rising from 105 million cwt. in 1996/97 to 123.3 million cwt. in 2005/06. This growth in demand, together with the fairly static supply picture, puts significant pressure on exports for the U.S. rice industry. The United States only ranks fourth in world rice trade and, as such, reduced export supplies from the United States have marginal effects on world rice prices. Consequently, the reduction in exports from the United States does not move world price to any significant degree, keeping downside pressure on the price of rice in the United States. These lower prices then are the main cause for rice area shifting at the margin to other commodities such as soybeans or sorghum.

Rice prices move into the \$8.50 per cwt to \$9.00 per cwt range with the 1997/98 crop, and hold at that level until the final two years of the projection. By that point, less than one-third of the U.S. rice crop is being exported.

Oilseeds

Soybean products are also expected to participate in the global growth in food demand; however, the increased utilization will come more from processed products than from raw soybeans, oil, or meal. U.S. bean area is expected to move down from the 65 million acre level expected with the 1997/98 and 1998/99 crops to the 63 to 64 million acre level and hold in that range throughout the remainder of the projection. Yield growth should boost production from the 2.4 billion bushel range with the 1996/97 crop to 2.7 billion bushels by the final year. Crush demand is expected to rise by more than 200 million bushels over the period, with exports up by 50 million bushels over the same time period. Bean stocks should recover in the 1997/98 marketing year to close to the 200 million bushel level. Subsequently, stocks are anticipated to hold around 260 million bushels.

This supply situation should allow prices to hold above \$6.00 per bushel for the 1997/98 crop year, then decline into the \$5.80 to \$5.90 per bushel range through 2001/02. Beyond that point, bean prices should demonstrate some strength, rising to more than \$6.50 per bushel by the end of the projection.

Soybean Meal

Meal production clearly increases with the growth in crush utilization. Probably more significant is the strength in domestic meal utilization. Meal use should grow from 26.8 million tons in 1996/97 to 31.8 million tons in 2005/06. Recognizing that this is almost exclusively feed utilization, it is driven in part by the growth in meat exports. Exports of meal itself are expected to be fairly static, holding below 7 million tons throughout the projection as the United States faces competition in the product markets primarily from Brazil and Argentina, but India is also expected to be a growing player. This should hold meal prices in the \$190 to \$200 per ton range through much of the projections, with prices dipping below \$190 per ton in 1998/99.

Soybean Oil

The situation is somewhat different in the oil markets than is expected for meal. Oil exports are expected to rise from the 1.7 million ton level in 1996/97 to 2.7 million tons by the end of the period. Again, increased demand for oil due

to higher incomes should help world consumption. While Brazil and Argentina will also be strong competitors in the soybean oil market, India is not in the oil export sector, nor is it expected to be because oil is the product of choice for their domestic market. Further, EU soybean oil exports are also expected to decline, opening additional markets for the United States. Domestic use of oil should move at essentially population growth rates, with some additional demand growth due to higher domestic incomes.

Cotton

Like rice, cotton will be hard pressed to hold onto acreage under the new farm program structure. Cotton area jumped in 1995/96 to 16.7 million acres planted. Planting moved to a more normal 14.4 million acres for the 1996/97 crop and should be about 13.6 million acres for 1997/98. In subsequent years, cotton area is expected to continue to decline with market returns coming under some downward pressure. It should be noted that this projection assumes that the current chemical cost savings from the new bioengineered cotton varieties continue to be offset by technology fees; thus, there is no major change in the cost structure for cotton production. Should that condition change, cotton plantings would also likely shift accordingly.

Cotton production then is expected to remain in the 18 to 18.5 million bale range through much of the projection. By the end of the period, cotton production reaches 18.7 million bales, with plantings down to 13 million acres. Domestic mill use of cotton is expected to remain the largest and strongest demand growth market for the product. Mill use should move from the 11 million bale range for the 1996/97 crop year to 12.8 million bales by the end of the period. This strong domestic demand growth, together with fairly steady supplies, will also lead to some pressure on exportable supplies of cotton. Further, as world demand for cotton trade also stagnates, the United States will likely find locating markets more difficult for raw cotton. Consequently, cotton exports should move through a fairly narrow range, from 6.2 million bales in 1996/97 to 6.7 million bales by 1998/99, then steadily declining to 6.1 million bales by 2005/06.

Cotton prices should also move through a fairly narrow range, with season average farm prices in the \$0.65 to \$0.70 per pound range through the projection.

Sugar and Sweeteners

Beet and cane are both expected to rise during the projection, with beet area showing the larger increase.

Cane, while up, is expected to grow only marginally from 840,000 acres in 1996/97 to 906,000 acres in 2005/06. Beet area, on the other hand, should grow by more than 100,000 acres over the same period. Sugar production is expected to rise from 7.3 million short tons to 7.8 million short tons by the end of the period, with imports also rising. Quota imports are expected to grow by more than 0.7 million short tons. Sugar prices are anticipated to hold in the \$.22 to \$.23 per pound range throughout the period as well.

High-fructose syrup supplies will move up from 8.8 million short tons to 11.1 million short tons by the end of the period. Exports and imports of the syrup should all but offset each other, giving total domestic use of HFCS at 11 million short tons by the last year of the analysis. Prices, like that of sugar, should stay in a fairly narrow range from \$.18 to \$.194 per pound.

Beef

One of the major findings of this baseline is the increase in meat exports. Beef is no exception. Imports of beef should move up marginally over the period, going from 2.05 billion pounds in 1997 to 2.3 billion pounds in 2006. Conversely, beef exports are expected to rise from 2.2 billion pounds in 1997 to 4.5 billion pounds in 1997, placing the United States in a position as a major exporter of beef and beef products. By 2006, the United States is expected to rank number two in world beef exports. Conversely, domestic utilization of beef is expected to move from 25.5 billion pounds in 1997 to 24.7 billion pounds in 2006. Clearly the export markets then provide all the impetus for overall growth in the sector. Beef cow numbers are expected to continue the current contraction through 2000, when cow numbers are expected to bottom out at 32.2 million head. In subsequent years, cow numbers should recover, reaching 34.7 million head by 2005.

Slaughter numbers should move similarly with cow numbers, albeit with some lag, but should reach 38.3 million head in 2005, up from the minimum of 35.2 million head in 2001. Beef production should decline to 24.5 billion pounds, also in 2001, and reach 27 billion pounds by 2006. Feeder steer prices, like finished animal prices, are expected to move counter to the production cycle. From the \$61 per cwt. price of 1996, feeder steer prices should increase through 2001, peaking near \$93 per cwt. At the same time, finished animal prices should also rise marginally in 1997 relative to 1996, then grow steadily until 2001 to peak in the \$82 per cwt. range. With

growing production after the turn of the century, cattle prices will come under some downside pressure, dipping back into the \$66 per cwt. level for feeder and finished animals by 2005. Again, it is important to note that by the end of the projection nearly 10 percent of beef demand is expected to come from export markets. Without that growth in demand, the size of the herd will need to adjust accordingly, with the primary mechanism of lower prices signaling that need for adjustment.

Pork

Export markets have been of growing importance to the hog industry for some years. This will likely become even more the case in the years ahead. While a marginal exporter of pork products in 1996, the United States should step firmly onto that stage in 1997. By 1999, the United States is expected to become the world's largest exporter of pork products and should hit net shipments of more than 2.1 billion pounds by 2006. As in the case of beef, this will be nearly 10 percent of total pork supplies.

Domestic use of pork is expected to grow, but only modestly over the projection period. On a per capita basis, pork consumption in retail weight was 49.2 pounds in 1996. Consumption is expected to increase through 1999 as supplies come on line, raising consumption to 51.4 pounds per capita. In later years, with the cycle in production and the growing export demand, consumption should fluctuate in the 50 to 51 pounds per capita range, bringing total domestic utilization of pork to 19 billion pounds by the end of the period.

Breeding animals are also expected to cycle through a fairly narrow range, from a low of 6.6 million head in 1996. Breeding sows should cycle between 6.8 and 7.0 million head through the remainder of the projection. A continued condition in the industry, however, will be improved production on a per sow basis. With 7 million sows in the herd in 1998, pork production is expected to total 18.5 billion pounds. With 7 million sows in the herd in 2003, production is anticipated to reach 20.9 billion pounds. This improvement comes in higher litter sizes, lower death loss rates, and slightly heavier animals.

Pork prices should move somewhat counter to the production cycle, with the growing export market providing some underlying support to the system. Hog prices are expected to decline from 1997 through 1999, then recover through 2001 and continue on roughly a four-to-five-year cycle from peak to peak thereafter, moving between prices in the low \$40 per cwt. range as a minimum to prices at or near \$50 per cwt. on the high end.

Broilers

Broiler production has demonstrated fairly steady growth for much of the past 20 years and is expected to continue to grow in the years ahead. From 26.1 billion pounds of production in 1996, broiler production should reach 37.6 billion pounds by 2006. The United States is a clear leader in world broiler and product exports and is expected to continue to dominate. From 4.5 billion pounds in 1996, broiler shipments are expected to continue to grow, albeit at a slightly reduced rate from the recent past, over the rest of the period, reaching 6.7 billion pounds by 2006. This will account for 18 percent of total broiler supplies.

Domestic utilization of broilers is also expected to continue to grow. Retail weight net of pet food consumption is expected to move from 70.6 pounds per capita in 1996 to 88.5 pounds per capita in 2006. Prices for broilers will be affected to a certain extent by the cycles in other meat prices. Broiler prices should decline in 1997 and somewhat further in 1998, then recover through 2002, suffer declines in 2002 and 2003, then show increases through the remainder of the projection. Note, however, that these prices are expected to move through a fairly narrow range of \$.56 to \$.59 per pound for 12-city wholesale prices.

Dairy Products

After a few years of relatively flat milk production as the sector has been forced to deal with high feed costs and fluctuating forage quality and supply, the sector is expected to return to more normal patterns in 1997. Milk production in 1997 is expected to total 155.7 billion pounds, about the same level as was produced in 1995. Subsequently, under the normal weather assumption inherent to the overall baseline, milk production is expected to grow by roughly 2 billion pounds per year, reaching 172.1 billion pounds by the end of the projection. With increases in production per cow due to genetics, management and some adoption of bST, dairy cow numbers are expected to continue their long-term decline. Milk cow numbers should decline by 40 to 70 thousand head per year during the period. Production per cow, on the other hand, is expected to rise by 200 to 300 pounds per cow, which more than offsets the drop in cow numbers. By the end of the period, cow numbers should be down to 8.9 million head, dipping below 9 million head in 2004.

Cheese demand has and will continue to drive the sector. Milk used for cheese purposes should move from 55.4 billion pounds in 1996 to 69.6 billion pounds. This 15 billion pound increase accounts for nearly 80 percent of the growth in milk supplies. This growth in demand for milk

for cheese production comes from strong domestic consumption growth of cheese. Per capita consumption is expected to rise from 27.8 pounds in 1996 to 32.3 pounds per capita in 2006.

Other product utilization is not expected to show the same level of demand growth. Butter consumption should show modest growth through much of the projection period, moving from 3.6 pounds per capita in 1996 to 3.7 pounds per capita in 2006. This demand is driven in part due to lower prices for butter, which are expected to decline throughout the projection, dipping to \$.69 per pound by 2006. Milk powder prices decline for the first few years of the baseline to a minimum of \$.96 per pound in 2000 with the phaseout of the purchase program, then recover through the remainder of the projection due mainly to supply conditions as powder production begins to fall off in the face of ever stronger cheese demand. The increase in powder prices is offset somewhat from a processor's standpoint by lower butter prices. Consequently, the combination of prices is not strong enough to attract milk supplies away from cheese. This lowers powder supply and per capita consumption, which is expected to fall to 3.2 pounds per capita by the end of the period.

Milk prices, while supported by the demand for cheese, will come under some pressure in the near term. The removal of the program in 2000 is expected to put some downward pressure on powder prices that will help to drop the all-milk price that year to just over \$12 per cwt. In subsequent years as powder prices recover and as demand strengthens, milk prices recover somewhat to finish the projection at \$12.50 per cwt.

Land Utilization

Overall planted area jumped significantly with the 1996/97 growing season, reaching 272 million acres. At least a portion of that increase, however, came from abandoned wheat acreage that shifted to sorghum and other crops. Sorghum area in 1996/97, for example, hit 13.2 million acres, up from 9.5 million acres the year before. While a part of that increase came from the elimination of the annual set-aside programs, a significant part of southern Kansas, for example, plowed up winter wheat that was damaged by drought and other factors and planted sorghum as a replacement crop. Subsequent to the large increase in 1996/97, overall plantings are expected to fall by 7 million acres in 1997/98. Over 2 million acres of this decline is expected to come from sorghum alone, with wheat area also falling by 5.4 million acres. Over the coming decade overall plantings to the 15 major crops are expected to hold in the 265 to 270 million acre range. As

discussed earlier, corn plantings are expected to increase, with the additional acreage declines coming in cotton and rice. This should not be interpreted as a direct transfer from these crops into corn. For example, there will likely be movement from wheat in the Corn Belt into feed grains and even movement from soybeans in the Corn Belt into corn, while soybeans may be taking over land in the Delta states.

Consumer Food Prices and Expenditures

As has been the case for some time, the overall CPI for food is expected to rise by less than the overall rate of inflation. While the CPI for meats will rise slightly through the next few years as beef prices increase with a reduced herd, once the beef cycle turns in the other direction the CPI for meats will again decline, helping to pull the overall CPI down as well. The CPI for dairy products also is not expected to rise as fast as inflation. Conversely, consumer costs for bakery and cereal products are expected to rise faster than overall prices with the strength in export markets bringing up corn costs in particular.

Per capita food expenditures are expected to rise by nearly \$400 over the next 10 years. Moving from \$1,881 per capita in 1996, the figure is expected to reach \$2,282 by the end of the period. Food at home expenditures are expected to account for roughly 75 percent of the increase, with cereal products accounting for nearly \$100 of the rise alone. Away from home consumption costs are expected to rise by \$90 per capita over the same period, from \$692 to \$783.

Farm Income and Government

Cash receipts from crops are anticipated to fall from \$105 billion in 1996 to \$101 billion by 1998. With the growth in world demand, however, crop receipts should recover in each year thereafter, and hit \$123 billion by 2006.

Livestock cash receipts are expected to gain during the period, but will demonstrate the overall livestock cycles, particularly with respect to beef. Livestock receipts should increase from 1996 through 2001, reaching \$105 billion, the same year that beef prices are expected to reach their maximum. Subsequently, livestock receipts are expected to decline, but only into the \$99 billion range by 2003 before recovering to \$102 billion by 2006.

Government payments under the program are those directly associated with market transition payments. As discussed early in this overview, it is assumed that these and the CRP payments continue after the expiration of the 1996 FAIR Act at the levels that are expected to be in place for the 2002 crop. These contract payments are expected

to hold in the \$4.0 billion range. CRP payments are also expected to total near the \$2.2 billion range. This holds government payments in the \$6.2 billion level from 2002 on.

Expenses associated with farm production should rise by nearly \$20 billion from 1996 through 2006. Farm origin inputs will likely rise by \$5 billion, roughly split between feed and purchased livestock costs. Manufactured inputs will likely grow by \$4 billion with no single category dominating the growth. Other operating and overhead expenses should rise by \$9.0 and \$2.9 billion, with labor costs in particular showing significant growth.

Net cash income is then anticipated to decline marginally in 1997 and 1998 compared to 1996 levels. The recovery in the cattle cycle will help to provide a basis for increases in farm income by 1999, pulling net cash figures over \$60 billion in 2000. Net cash income will likely decline from there to a low in the \$58.3 billion range and then rise with higher cattle prices, reaching \$62.3 billion in 2006. Net farm income will follow a similar path, peaking in 2001 at \$54.8 billion. Real net farm income will likely decline from 1996 levels, but is expected to remain above \$31 billion through the projection.

Figures 1 & 2

Figures 3 & 4

Figures 5 & 6

Figures 7 & 8

Figures 9 & 10

Figures 11 & 12

Figures 13 & 14

Baseline Assumptions and Price Projections

Macroeconomic Assumptions

Policy Assumptions

Policy Prices and World Prices by Commodity

Macroeconomic Assumptions

- World economic growth of real gross domestic product (GDP) is projected above 3 percent annually over the next decade. Along with stable economic growth of developed countries, sustained and evenly distributed economic growth is also projected for developing countries at a rate of 5.9 percent.
- The WEFA Group forecasts that U.S. economic growth will continue at recent levels throughout the baseline. **Real GDP** growth averages about 2.2 percent. This steadiness in GDP is matched by similar stability in other measures of economic activity.
- **Interest rates** are predicted to continue their slow decline in 1997. This brief downward trend slows in 1998 and after this time interest rates fluctuate at fairly low levels, averaging 0.5 percent below those of 1996.
- The WEFA Group foresees no great reduction in the U.S. **federal deficit**. The current budgetary imbalance remains unchanged until the end of the decade. At that time an aging population puts upward pressure on expenditures but relative to GDP the deficit does not increase.
- The WEFA Group anticipates low U.S. **inflation**, especially for producer prices in 1997 and 1998. The recent slow pace of price growth is maintained throughout the baseline and inflation fails to reach 3 percent. This projection is contingent upon a substitution to coal as oil prices rise.
- Strong economic growth is projected for most **Asian** countries over the projection period. A major exception is likely to be Japan, where the mature economy is expected to grow at less than 2.5 percent in the long run.
 - **Chinese** per capita real GDP doubles in the next 10 years.
 - **Indian** real GDP growth is expected to average 7 percent over the forecast period.
 - **Taiwan** and **South Korea** are projected to grow at a slower rate than they did in the last decade.
- **Latin America** is rebounding from a 1995 recession with strong growth from Mexico, Argentina, and Brazil. Continuation of structural reforms will be the deciding factor for the potential growth of this region over the next decade.
- After a quick recovery from peso devaluation, **Mexico** is projected to exhibit growth rates of approximately 5 percent for the projection period.
 - Real GDP growth rate of **Brazil** is expected to average 5 percent over the period.
- The **African** economy is projected to grow by more than the world average. Even though population growth of this region is projected to be the highest in the world, slowing population growth rates are expected to raise per capita real GDP. Much of the income growth will be in Northern African countries.
- The recovery process in transition economies occurs earlier in **Eastern European** countries than in the FSU. By 1997, all Eastern European countries show positive economic growth with similar occurrence in 1998 for the republics of the FSU.
 - **Russia**, the dominant economy of the FSU, is projected to grow at 5 percent after 1998.
 - **Slovakia** has the highest economic growth among Eastern European countries, followed by **Poland**.
- The **U.S. dollar** is expected to depreciate against most developed nations' currencies in the next 10 years, with the exception of the EU and New Zealand. The dollar is projected to strengthen against developing nations' currencies, except those of South Korea and Taiwan.

Domestic and International Economic Projections

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
United States											
					(Percent Change)						
Real G.D.P. /a	2.3	2.1	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.1
Real Cons. Expenditure /a	2.4	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.0	2.1
CPI, All Urban Consumers /a	2.9	2.6	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.7
PPI, All Commodities /a	2.2	0.5	1.4	2.2	2.3	2.6	2.6	2.4	2.3	2.4	2.4
Unemployment Rate	5.4	5.5	5.7	5.7	5.7	5.8	5.6	5.6	5.6	5.7	5.7
3-Month Treasury Bill Rate	5.0	4.9	4.8	4.8	4.7	4.7	4.6	4.5	4.5	4.5	4.6
Moody's AAA Corp. Rate	7.3	6.6	6.4	6.3	6.4	6.5	6.6	6.7	6.6	6.6	6.6
Avg. Hourly Earnings Food and Kindred Products /a	2.6	2.7	2.5	2.6	3.1	3.6	3.2	2.8	2.6	2.9	3.0
					(Billion Dollars)						
Federal Budget Deficit Unified Budget Basis	117.9	116.3	114.3	115.7	140.8	138.7	117.2	100.7	106.4	116.7	118.5
Current Account Deficit	163.1	177.4	169.2	166.7	161.6	155.8	154.4	150.7	157.1	166.8	162.8
International											
					(U.S. Dollars per Barrel)						
Average Arab Oil Price	22.0	21.2	21.5	22.3	23.3	24.2	25.0	25.7	26.4	27.0	27.9
					(Percent Change)						
Real GDP											
World	2.6	3.0	3.5	3.4	3.3	3.3	3.4	3.4	3.3	3.3	3.3
Africa	4.4	4.4	4.5	4.6	4.8	4.9	4.9	4.9	4.9	4.9	4.9
Latin America	3.0	4.6	4.8	4.2	4.3	4.6	4.6	4.6	4.6	4.6	4.6
Developing Asia	7.5	7.6	7.5	7.3	7.2	7.1	7.1	7.1	7.1	7.1	7.1
Western Europe	1.6	2.2	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Eastern Europe	4.6	4.4	4.5	4.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Former Soviet Union	-0.3	4.2	5.6	5.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0
China	9.5	9.6	9.2	8.9	8.6	8.6	8.5	8.4	8.3	8.2	8.1
					Local Currency per U.S. Dollar						
Argentina	-0.1	0.0	0.0	0.0	0.0	4.5	4.5	4.5	4.5	4.5	4.5
Brazil	9.7	11.5	10.5	13.2	14.4	12.6	15.1	14.5	13.9	13.3	12.7
Canada	-0.1	1.5	0.2	-1.4	-2.4	-2.1	-1.8	-1.5	-1.2	-0.9	-0.6
Australia	-5.1	-0.2	1.7	4.0	2.1	1.8	1.8	1.8	1.8	1.8	1.8
Thailand	1.5	0.6	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Japan	14.5	2.7	0.9	-1.8	-1.0	-1.0	-0.9	-0.8	-0.7	-0.6	-0.5
European Union	4.4	4.9	3.2	0.9	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
South Korea	3.7	-1.2	-0.9	-0.8	-0.8	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
Taiwan	2.6	-0.8	-1.6	-0.3	-0.4	0.1	0.1	0.1	0.1	0.1	0.1

a/ Percent change from preceding year.

SOURCE: The WEFA Group November 1996, for all countries except the United States, which is from the WEFA Group January 1997; and all of Eastern Europe, the Former Soviet Union, and Africa, which are from Project LINK November 1996.

Policy Assumptions

- FAPRI projections incorporate provisions of the **Federal Agriculture Improvement and Reform Act of 1996 (FAIR)**. Provisions of the act are assumed to be extended indefinitely. The projections also incorporate both the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT).
- The FAIR Act suspends price supports for food grains, feed grains, and cotton. Marketing loan rates for feed grains, food grains, oilseeds, and cotton are calculated according to the formulas set forth in the FAIR Act.
- Annual Acreage Reduction Programs (ARPs) and 50,0-92,85 programs are eliminated.
- The **Conservation Reserve Program (CRP)** is continued in the current FAPRI projections, with some contracts allowed to expire, other contracts re-enrolled, and new contracts allowed by the Secretary. The ability to write new contracts pushes the total number of CRP acres upwards, exceeding 33 million acres by the end of the baseline period. Under the provisions of the FAIR Act, enrollment in the CRP is capped at 36.4 million acres.
- As mandated by the FAIR Act, the loan rate for sugar cane is set at \$.18 per pound of raw sugar and the rate for sugar beets is set at \$.23 per pound on a refined sugar basis. Forfeitures of cane sugar pledged as loan collateral will pay a penalty of \$.01 per pound. Sugar marketing quotas are assumed to be triggered in fiscal years when sugar imports fall below 1.25 mmt. Marketing quotas are not triggered in the FAPRI projections.
- The FAIR Act specifies that the milk support program will be eliminated after 1999. The support price in 1996 is \$10.35 per cwt, and is decreased to \$9.90 per cwt by 1999. Only nonfat dry milk is removed under price support activity before the elimination of the program in 1999. Dairy producer assessments are eliminated. The Dairy Export Incentive Program (DEIP) program will continue and will receive full funding to operate at WTO maximum levels.
- Support prices in **Japan** are assumed to be frozen indefinitely at current levels as Japan is expected to be in compliance with GATT AMS reduction commitments. Market access is implemented according to GATT requirements, and no tariffication of rice trade barriers is implemented. The tariff reduction for beef continues.
- **Chinese** grain imports are limited to less than 10 percent of domestic production. This baseline does not make any assumption concerning China's accession to the WTO.
- Unilateral liberalization is assumed for a number of countries, including the elimination of the Maize Board and reduced producer support in **South Africa**, liberalization of import regimes by **Tunisia** and **Egypt**, and removal of export taxes in **Brazil** and **Argentina**.
- In the **FSU**, the transformation to market economies is assumed to continue. Policies are assumed to be successful in avoiding a further breakdown of the production and distribution systems. Price liberalization is assumed to proceed over the next several years.

International Agricultural Policy Assumptions

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
European Union											
Policy Prices	(ECUs per Metric Ton)										
Cereal Intervention	119	119	119	119	119	119	119	119	119	119	119
Rice Intervention	374	351	333	316	298	298	298	298	298	298	298
Oilseed Reference Price	196	196	196	196	196	196	196	196	196	196	196
White Sugar Intervention	632	632	632	632	632	632	632	632	632	632	632
Raw Sugar Intervention	467	467	467	467	467	467	467	467	467	467	467
A Beet Minimum	46	46	46	46	46	46	46	46	46	46	46
B Beet Minimum	32	32	32	32	32	32	32	32	32	32	32
Grains Compensatory Payment	54	54	54	54	54	54	54	54	54	54	54
Production Aid	(ECUs per Hectare)										
Oilseeds	412	412	412	412	412	412	412	412	412	412	412
Durum Wheat	279	279	279	279	279	279	279	279	279	279	279
Oilseed Base Area	(1,000 Hectares)										
Oilseed Base Area	5,482	5,482	5,482	5,482	5,482	5,482	5,482	5,482	5,482	5,482	5,482
Set-aside Rate ^{\a}	(Percent)										
Grains, Protein Crops	12	10	5	10	10	10	10	10	10	10	10
Oilseeds	10	10	10	10	10	10	10	10	10	10	10
Japan											
Policy Prices	(1,000 Yen per Metric Ton)										
Rice Purchase	273	273	270	267	264	261	258	255	252	249	246
Rice Resale	299	299	298	298	297	297	296	295	294	293	292
Wheat Purchase	152	152	152	152	152	152	152	152	152	152	152
Wheat Resale	51	51	51	51	51	51	51	51	51	51	51
Barley Purchase	131	131	131	131	131	131	131	131	131	131	131
Barley Resale	45	45	45	45	45	45	45	45	45	45	45
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
European Union											
Policy Prices	(ECUs per Metric Ton)										
Beef Intervention	3,475	3,475	3,475	3,475	3,475	3,475	3,475	3,475	3,475	3,475	3,475
Pork Basic	1,509	1,509	1,509	1,509	1,509	1,509	1,509	1,509	1,509	1,509	1,509
Milk Target	320	320	320	320	320	320	320	320	320	320	320
Milk Delivery Quota	(Million Metric Tons)										
Milk Delivery Quota	117	117	117	117	117	117	117	117	117	117	117

\a Average set-aside prior to exemption for small producers.

Policy Prices and World Prices, by Commodity

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Wheat											
	(U.S. Dollars per Metric Ton, Marketing Year)										
EU Intervention	157	149	139	138	138	139	140	141	141	142	143
Japanese Purchase	1,505	1,391	1,367	1,373	1,392	1,406	1,421	1,435	1,450	1,464	1,479
U.S. Target	147	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOB U.S. Gulf	209	190	152	149	163	163	169	169	169	169	171
Canadian Thunder Bay	187	211	162	158	175	174	183	183	185	186	188
Australian Wheat Board	197	179	137	134	148	148	156	156	158	159	161
Barley											
EU Intervention	157	149	139	138	138	139	140	141	141	142	143
Japanese Purchase	1,297	1,198	1,177	1,183	1,200	1,212	1,224	1,236	1,249	1,261	1,274
U.S. Target	108	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOB U.S. Pacific Northwest	159	144	133	128	131	135	137	136	137	140	142
Corn											
EU Intervention	157	149	139	138	138	139	140	141	141	142	143
U.S. Target	108	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOB U.S. Gulf	169	123	107	107	109	110	115	118	120	124	127
Rice											
Japanese Purchase	2,708	2,503	2,432	2,416	2,423	2,420	2,416	2,412	2,408	2,403	2,398
U.S. Target (rough)	236	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FOB Bangkok 100B NPQ	367	340	319	314	306	314	316	318	319	332	341
Rapeseed											
EU Reference	361	378	351	341	335	332	328	326	325	321	318
Cash Vancouver	314	333	326	307	304	319	320	334	342	351	357
Soybeans											
EU Reference	361	378	351	341	335	332	328	326	325	321	318
U.S. Loan Rate	181	183	193	193	193	193	187	185	185	187	190
FOB U.S. Gulf	267	270	247	232	230	235	237	241	245	250	258
Cotton											
U.S. Target	1,607	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cotlook A Index	1,886	1,751	1,707	1,653	1,665	1,712	1,751	1,766	1,773	1,785	1,804

Policy Prices and World Prices, by Commodity (continued)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Beef											
	(U.S. Dollars per Metric Ton)										
EU Intervention	4,335	4,048	4,004	4,028	4,048	4,068	4,089	4,109	4,130	4,151	4,172
Japanese Wholesale											
Dairy beef	7,790	7,650	7,955	8,193	8,233	8,282	7,908	7,470	7,261	7,015	7,116
Wagyu beef	14,906	15,137	16,372	16,804	15,673	14,543	14,221	14,659	15,419	16,032	16,334
Nebraska Direct											
Fed Steer Price	1,436	1,448	1,548	1,657	1,751	1,815	1,731	1,607	1,546	1,475	1,508
U.S. Retail	6,178	6,244	6,690	7,025	7,293	7,531	7,439	7,290	7,277	7,234	7,380
Pork											
EU Basic	1,883	1,758	1,739	1,750	1,758	1,767	1,776	1,785	1,794	1,803	1,812
Japanese Wholesale	4,457	4,347	4,350	4,302	4,128	3,937	3,818	3,789	3,778	3,764	3,764
U.S. Barrows, Gilts	1,176	1,186	1,022	927	1,001	1,081	1,016	945	1,027	1,106	1,023
U.S. Retail	4,871	4,913	4,848	4,819	5,063	5,310	5,295	5,246	5,486	5,651	5,641
Broilers											
EU Producer	1,586	1,475	1,421	1,404	1,410	1,425	1,445	1,462	1,483	1,502	1,519
Japanese Wholesale	2,167	2,084	2,089	2,105	2,093	2,084	2,056	2,042	2,049	2,062	2,071
U.S. 12-City Wholesale	1,351	1,273	1,254	1,260	1,283	1,298	1,285	1,275	1,279	1,296	1,297
U.S. Retail	3,461	3,314	3,282	3,291	3,309	3,314	3,307	3,258	3,296	3,318	3,317
Butter											
EU Intervention	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283	3,283
U.S. CCC Purchase	1,433	1,433	1,433	1,433	0	0	0	0	0	0	0
U.S. Wholesale	2,212	1,772	1,690	1,660	1,674	1,620	1,582	1,545	1,536	1,514	1,500
FOB Northern Europe	1,692	1,661	1,630	1,583	1,577	1,570	1,570	1,585	1,605	1,630	1,656
Canadian Support	3,857	3,800	3,792	3,846	3,941	4,025	4,007	3,950	3,880	3,795	3,697
Nonfat Dry Milk											
EU Intervention	2,564	2,394	2,368	2,382	2,394	2,406	2,418	2,430	2,443	2,455	2,467
U.S. CCC Purchase	2,347	2,308	2,266	2,225	0	0	0	0	0	0	0
U.S. Wholesale	2,693	2,534	2,329	2,248	2,127	2,162	2,267	2,298	2,342	2,325	2,329
FOB Northern Europe	2,016	1,853	1,834	1,816	1,860	1,885	1,915	1,913	1,939	1,982	2,027
Canadian Support	3,045	3,079	3,194	3,391	3,630	3,912	4,184	4,443	4,735	5,033	5,297
Cheese											
U.S. CCC Purchase	2,524	2,492	2,459	2,426	0	0	0	0	0	0	0
U.S. Wholesale	3,288	3,076	3,056	3,033	2,950	2,949	2,952	2,975	2,967	3,011	3,002
FOB Northern Europe	2,371	2,126	2,191	2,281	2,397	2,412	2,439	2,462	2,499	2,549	2,600
Milk											
EU Target	399	373	369	371	373	375	377	378	380	382	384
U.S. Support	228	225	222	218	0	0	0	0	0	0	0
U.S. Farm	325	302	298	295	286	286	287	289	288	292	291
Canadian Target, Industrial	410	410	418	435	457	482	502	520	539	559	575

World Trade

Wheat

Feed and Coarse Grains

Soybean and Soybean Products

Rapeseed and Rapeseed Products

Sunflower Seed and Products

Palm Oil Products

Rice

Cotton

Sugar

Beef and Veal

Pork

Poultry

Dairy Products

World Wheat

- For the **United States**, weather problems during the fall planting season coupled with lower prices lowered winter wheat seeding in the fall of 1996, and as a result, 1997 wheat acreage declines from 1995/96 levels. Declining prices of competing crops brings some land back into wheat in 1998. In the longer term, wheat area ranges from 30 to 31 mha. During the period 1996 to 2001, U.S. wheat exports strengthen (25.8 mmt to 34 mmt) mainly because the EU faces limitations on subsidized sales of wheat products under the GATT agreement. But after 2001, U.S. wheat exports remain flat because higher world prices relative to the EU wheat price enable the EU to export without an export subsidy.
- **Argentine** wheat area increased by 1.8 mha to 6.6 mha in 1996/97 because of the high world price. Higher area combined with record yields resulted in 6.3 mmt additional production that made its way into the export channel. Wheat area is projected to decline by 1 mha as the price drops in the next few years but it is highly unlikely that it will reach the 1995/96 level of 4.8 mha. Higher area and 1.5 percent average annual yield growth in the next 10 years contribute to the reemergence of Argentina as a major exporter with approximately 10 percent of the market share (9 to 10 mmt of exports).
- **Australian** farmers responded to the high price in 1996/97 by adding 1.4 mha so that wheat area reached 11.1 mha. Higher area combined with good growing conditions resulted in a 4.5 mmt increase in production relative to the 1995/96 production of 17 mmt. Wheat area is projected to decline moderately as prices decrease in the next few years. Exports are expected to remain in the 13 to 14 mmt range.
- In addition to higher area, a record yield in 1996/97 increased **Canadian** wheat production to 30.5 mmt compared with 25 mmt in 1995/96. Wheat area is expected to decline in the next few years because of competition from canola but it is expected to recover to just below the 1996/97 area as the price recovers after 2001. With a stagnant domestic demand, wheat exports are projected to increase steadily from 17.7 mmt to 20.5 mmt by 2005.
- **Eastern European** wheat production decreased 6.7 mmt to 26.36 mmt in 1996/97 because of a drought, causing it to import about 1.2 mmt of wheat. Area is projected to be stable over the next 10 years and yield growth is expected to keep pace with increasing domestic use, resulting in exports of approximately 3 mmt per year through 2005/06.
- Developments in the FSU remain an important source of uncertainty over the projection period. This year with high area and better yields, **Russian** wheat production was 5 mmt higher than the winter-damaged 1995/96 crop. Because of higher production, wheat imports are expected to decrease to 2.5 mmt in 1996/97. During our projection period, Russian imports are expected to decline because of lower feed use and because of a steady increase in production through yield growth that keeps pace with domestic use. Wheat production in **Ukraine** decreased in 1996/97 as a result of drought. Improved production allows Ukraine to return to a net exporter position throughout the projection period.
- Along with many other wheat-producing countries, **China** also witnessed a record wheat crop in 1996/97, with its imports declining to a record low of 5.8 mmt. With high income growth, per capita wheat consumption is projected to rise slowly during our projection period from 88.8 kg per year to 90.6 kg per year. Even with a decline of wheat area, production increases are projected to keep pace with population growth and import requirements will be stable at 10 to 11 mmt.
- **Brazil's** import growth is projected to continue over the period at an annual rate of more than 2.4 percent. Limited production prospects, strong population growth, and economic recovery are the main driving forces behind this strong import growth.
- **Other Latin American** countries are likely to continue relying heavily on imports to meet domestic wheat requirements. However, continuing debt problems are expected to constrain their ability to buy on the world market. Consequently, imports are projected to increase by only 2 mmt over the next 10 years.
- Newly industrializing **Asian** countries are expected to continue to increase wheat imports due to limited production capabilities. Wheat imports are projected to increase from 6.6 to 8.4 mmt by the end of the period.

Wheat Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(Million Metric Tons)										
Argentina	4.95	11.00	9.55	9.00	8.85	8.95	9.08	9.31	9.50	9.74	9.98
Australia	12.78	13.48	14.92	15.37	14.71	14.02	13.66	13.53	13.55	13.70	13.94
Canada	15.88	17.70	18.91	18.52	18.86	19.82	20.22	20.42	20.58	20.61	20.56
Eastern Europe	3.12	-1.22	2.75	3.50	3.34	3.21	3.06	2.90	2.72	2.53	2.32
European Union	10.86	12.46	15.36	13.16	10.92	11.49	12.28	13.85	14.83	16.29	18.21
Ukraine	0.90	0.30	0.75	0.90	1.04	2.01	1.65	1.94	2.54	2.95	3.03
Total Non-U.S.	48.49	53.72	62.24	60.45	57.72	59.50	59.95	61.95	63.73	65.82	68.03
United States	30.47	23.95	26.05	28.66	31.49	31.54	31.72	31.62	31.75	31.60	31.77
Trade Share	38.6%	30.8%	29.5%	32.2%	35.3%	34.6%	34.6%	33.8%	33.3%	32.4%	31.8%
Total Net Exports	78.96	77.67	88.29	89.10	89.21	91.04	91.68	93.57	95.47	97.42	99.80
Net Importers											
Japan	5.70	5.90	6.04	6.07	6.09	6.12	6.16	6.19	6.23	6.27	6.32
Russia	4.00	2.00	2.26	1.00	0.58	0.47	0.42	0.36	0.35	0.36	0.55
Other Former Soviet Union	1.69	1.40	1.69	2.37	2.53	2.46	2.44	2.38	2.39	2.37	2.38
Other Western Europe	0.40	0.50	0.52	0.53	0.54	0.55	0.56	0.62	0.65	0.66	0.66
Developing	67.45	64.54	73.93	77.67	77.99	79.97	80.63	82.54	84.37	86.27	88.40
China	11.68	5.80	9.62	11.40	11.09	11.63	11.14	11.34	11.13	10.86	10.80
High-Income East Asia	4.10	6.61	6.48	6.57	6.60	6.70	6.90	7.23	7.60	7.98	8.38
India	-0.57	-1.17	1.39	1.47	1.63	1.79	1.60	1.67	1.94	2.28	2.55
Other Asia	11.88	12.95	14.34	14.85	15.09	15.32	15.49	15.73	15.93	16.16	16.44
Brazil	5.60	5.20	5.46	5.57	5.68	5.81	5.92	6.04	6.17	6.30	6.45
Mexico	1.25	1.75	1.59	1.70	1.74	1.76	1.80	1.85	1.92	2.00	2.09
Other Latin America	7.12	7.59	7.70	8.09	8.32	8.53	8.70	8.89	9.09	9.29	9.51
Algeria	3.00	3.50	4.21	4.32	4.40	4.54	4.66	4.82	4.99	5.16	5.34
Egypt	6.00	6.00	6.24	6.33	6.46	6.63	6.82	7.04	7.29	7.57	7.88
Morocco	2.35	1.00	1.33	1.76	1.81	1.89	1.93	1.99	2.11	2.23	2.25
Tunisia	0.95	0.50	0.93	0.98	1.02	1.07	1.12	1.18	1.25	1.32	1.39
Other Africa/Middle East	14.09	14.82	14.64	14.64	14.16	14.31	14.56	14.74	14.96	15.13	15.32
Rest of World	0.42	0.42	0.45	0.47	0.47	0.47	0.47	0.47	0.48	0.49	0.49
Residual	-0.70	2.91	3.40	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Net Imports	78.96	77.67	88.29	89.10	89.21	91.04	91.68	93.57	95.47	97.42	99.80
Wheat Prices	(U.S. Dollars per Metric Ton)										
U.S. FOB Gulf	209.00	190.31	151.96	148.51	162.67	162.65	169.01	169.20	168.86	168.98	170.85
Canadian Thunder Bay	187.35	211.02	162.06	158.28	174.64	174.40	183.31	183.33	184.68	186.00	187.99
Australian Wheat Board	196.78	178.65	136.85	133.89	148.10	148.12	155.95	156.19	157.55	158.90	160.81
CIF Rotterdam	245.26	223.47	178.74	174.72	191.23	191.20	198.62	198.85	198.45	198.59	200.77

World Feed and Coarse Grains

- With the strong increase in production, prices in 1996/97 are expected to fall from previous year highs. However, global coarse-grain area for 1997/98 is only expected to decline by a marginal amount. Global demand for coarse grains is expected to continue to increase at approximately 1.6 percent each year over the baseline period. With yields only expected to grow at 1.2 percent each year and total area expected to be relatively constant, corn prices at the Gulf of Mexico bottom out at \$107 per mt in 1997/98 and gradually increase to \$127 per mt at the end of the projection period.
- A 600 thousand ha increase in **Argentine** corn area combined with a 3 percent higher yield increased 1996/97 production, leading to an expected export increase of more than 1.8 mmt compared with 1995/96. Area is expected to decrease slightly in 1997/98 because of lower prices, and then, after further modest declines through 1999/00, area gradually increases until 2005/06. Exports are projected to increase from 7.3 mmt in 1996/97 to 8.7 mmt in 2005/06.
- **Australian** barley production increased in 1996/97 as area expanded by 90 thousand ha and yields increased 6 percent; however, increased domestic demand leaves 80 tmt less grain for export. Because of competition from wheat and oil-seeds, barley area is not projected to increase over the next 10 years, leaving little opportunity for exports to increase.
- A 565 thousand ha increase in **Canadian** barley area led to a 2.87 mmt increase in barley production in 1996/97. Barley area and production are expected to fall in the next few years because of competition from canola and wheat. Over this period feed use is expected to increase. Exports increase by an estimated 1.1 mmt in the 1996/97 marketing year compared to 1995/96, but are then projected to decline until 2002/03 and then only recover to the 2.2 mmt level by 2005.
- As a result of a 6 percent reduction in yields from 1995/96, **Eastern European** feed-grain production declined by 2 mmt. Area is not expected to grow much over the projection period, but yields should continue to improve, expanding production more quickly than recovering domestic utilization. In 1996/97 exports declined markedly from the previous year but the region remains a net exporter and it is anticipated that Eastern Europe will increase exports, reaching nearly 1.7 mmt by 2005/06.
- With a reduction in the set-aside from 12 to 10 percent in 1996/97, the **EU** barley area increased by 685 thousand ha. The increase in area, combined with a 13.5 percent yield growth, raised production by 9.1 mmt from 1995/96 levels and net exports are estimated to be up by 1.1 mmt from last year's levels. In the latter part of the projection period, competition from wheat will limit barley area, resulting in coarse grain exports below GATT-allowed levels.
- A 10 percent decline in yields in **South Africa** combined with a 100 thousand ha increase in corn area has led to a 1 mmt decrease in production in 1996/97 compared with the previous year. Increased domestic use and reduced production have resulted in a 1.5 mmt decrease in exports from 1995/96. Likewise, increasing domestic use, decreased area, and average yields over the next 10 years should cause the exportable surplus to decline to 270 tmt.
- In 1996/97 **Mexican** corn imports decline by 2.9 mmt. Feed demand is projected to grow in 1997/98 as the Mexican economy recovers, and to expand steadily over the remainder of the projection period, with the majority of the increased demand coming for corn. Imports increase to 4.7 mmt.
- **Asia** (excluding China, Japan, and Thailand) is projected to increase feed-grain imports by 7.9 mmt between 1996/97 and 2005/06. Land constraints should limit production increases, while high income growth should lead to increased demand for livestock products. The result is stronger demand for imported feed grains. Countries such as **South Korea** and **Taiwan** are expected to remain large importers, but the share of imports accounted for by these two countries declines as Malaysia and Indonesia import more.

Feed-Grain Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Argentina	6,100	7,602	7,148	6,805	6,734	7,329	7,767	8,101	8,447	8,718	8,976
Australia	4,205	3,605	2,900	2,919	2,922	2,850	2,825	2,779	2,761	2,708	2,706
Canada	2,985	4,140	4,311	4,262	3,872	3,419	3,282	3,322	3,456	3,501	3,734
Eastern Europe	2,126	1,445	444	991	1,244	1,315	1,420	1,580	1,646	1,627	1,687
European Union	361	2,639	5,486	1,119	2,060	3,309	3,080	3,784	4,803	4,521	4,799
South Africa	2,500	970	1,272	1,176	672	545	482	390	301	239	156
Ukraine	250	150	587	1,387	1,436	1,473	1,699	1,681	1,693	1,692	1,853
Total Non-U.S.	18,527	20,550	22,148	18,658	18,939	20,239	20,554	21,636	23,106	23,006	23,912
United States	57,641	51,761	56,687	64,382	68,390	70,277	73,448	76,156	78,507	81,794	83,119
Trade Share	75.7%	71.6%	71.9%	77.5%	78.3%	77.6%	78.1%	77.9%	77.3%	78.0%	77.7%
Total Net Exports	76,168	72,311	78,835	83,040	87,329	90,515	94,002	97,792	101,613	104,800	107,031
Net Importers											
Israel	1,132	1,200	1,236	1,214	1,219	1,231	1,205	1,179	1,178	1,182	1,185
Japan	19,960	20,585	19,829	19,547	19,406	19,319	19,193	18,996	18,777	18,607	18,490
Russia	650	-100	198	29	-221	-390	-148	-71	145	352	488
Other Former Soviet Union	285	900	436	-558	-1,136	-1,297	-1,291	-1,190	-1,126	-995	-861
Developing	47,728	47,217	55,443	61,240	66,412	70,011	73,311	77,019	80,606	83,587	85,571
Algeria	563	925	1,401	1,455	1,457	1,460	1,462	1,465	1,468	1,470	1,472
Egypt	2,274	2,900	2,857	2,893	2,967	3,040	3,113	3,188	3,266	3,352	3,445
Other Africa	1,029	2,625	1,915	2,164	2,333	2,725	3,018	3,288	3,504	3,703	3,958
Saudi Arabia	3,750	5,050	5,625	5,676	5,677	5,730	5,636	5,540	5,760	5,546	5,549
Other Middle East	3,603	2,880	3,113	3,381	3,476	3,669	3,484	3,357	3,474	3,570	3,684
Brazil	776	1,165	2,419	2,641	2,713	2,718	2,928	2,944	3,019	3,086	3,055
Mexico	8,274	5,655	6,405	6,892	7,301	7,720	8,013	8,305	8,607	8,939	9,292
Other Latin America	5,482	6,676	6,865	6,583	6,878	7,466	7,830	8,310	8,720	9,132	9,584
China	2,750	1,500	3,883	8,229	11,354	12,523	14,091	16,251	17,582	18,759	18,608
Indonesia	1,220	790	2,061	2,229	2,420	2,598	2,780	2,971	3,181	3,409	3,656
Malaysia	2,300	2,600	2,486	2,524	2,569	2,627	2,692	2,770	2,859	2,957	3,069
Pakistan	0	0	0	0	0	0	0	0	0	0	0
South Korea	8,913	6,850	8,290	8,323	8,493	8,614	8,729	8,849	8,978	9,099	9,251
Taiwan	5,890	6,300	6,626	6,761	6,880	7,001	7,129	7,253	7,380	7,500	7,631
Thailand	162	300	361	427	514	624	746	889	1,053	1,235	1,442
Vietnam	0	0	-50	-50	-50	-50	-50	-50	-50	-50	-50
Other Asia	742	1,000	1,186	1,113	1,429	1,547	1,711	1,688	1,805	1,879	1,925
Rest of World	2,213	1,079	1,192	1,068	1,149	1,142	1,231	1,358	1,533	1,566	1,658
Residual	4,200	1,430	500	500	500	500	500	500	500	500	500
Total Net Imports	76,168	72,311	78,835	83,040	87,329	90,515	94,002	97,792	101,613	104,800	107,031
Corn Prices	(U.S. Dollars per Metric Ton)										
U.S. FOB Gulf	169.28	122.61	107.37	106.68	109.30	110.47	114.91	117.51	119.77	124.12	126.64
CIF Rotterdam	190.14	137.54	120.36	119.59	122.54	123.85	128.86	131.79	134.34	139.24	142.08
Sorghum Price											
U.S. FOB Gulf	158.51	118.54	108.10	106.70	109.69	112.27	116.35	118.50	119.80	123.17	125.42
Barley Price											
U.S. FOB Gulf	158.67	143.77	133.21	128.18	130.94	134.68	137.19	136.48	137.42	140.11	141.84

World Soybeans and Soybean Products

- **World** area under soybeans is projected to increase to more than 69 mha by 2005/06 from the current 63.3 mha with an associated increase of 28.5 mmt in soybean production. The increase in soybean crush is expected to increase the meal and oil production by about 20 mmt and 4.7 mmt. We project an increase of nearly 1 mha each in Argentinean and Brazilian soy area. This is, in part, in response to the recent changes in their agricultural policies that are expected to favorably influence their soybean/soybean products sectors.
- Total soybean trade is expected to increase by more than 3 mmt by the end of the period. Most of the projected increase is expected to come from **China**, which is expected to increase its soybean imports from 1.3 mmt in 1996/97 to more than 3.2 mmt by 2005/06. Soybean exports from **Brazil** are expected to reach 5.4 mmt by the end of the period.
- **Argentina** has reduced subsidies to its vegetable oil exporters from 1.5 percent to 1.35 percent, amounting to a reduction of \$2 per mt in processors' incomes. Also, the subsidy to refined oil exports is also being cut. However, these changes are not expected to affect Argentina's standing as the leading soy oil exporter in the world during the projection period. Increased area (7.2 mha by 2005/06) and a 25 percent increase in soybean crushing is expected to increase Argentinean soy oil output to about 2.2 mmt by the end of the period.
- **Brazil** has also made significant changes in its agricultural export tax policies. Rio Grande do Sul has decreased the value-added tax on soy meal and soy oil to 5 percent from the current levels of 8 and 11.1 percent. Export taxes on soybeans and soybean products have also been eliminated. Therefore, our projections for the Brazilian soybean sector are rather optimistic, with total harvested area projected to increase to 13.2 mha by 2005/06 and exports of raw soybeans projected to increase to 5.4 mmt by that year.
- The continuing expansion of the **Chinese** meat sector is expected to drive much of the growth in soybean meal trade. Chinese soybean meal imports are projected to reach 2.2 mmt by 2005/06. Its soybean imports for domestic consumption and crushing are projected to increase to more than 3.2 mmt by 2005/06 from the current import level of 1.3 mmt. Increased income in China is also expected to be crucial in driving up soybean oil import demand by another .5 mmt.
- **Japan** imports large amounts of soybeans for its domestic crushing industry. Its total imports of beans are projected to grow to 5.2 mmt by 2005/06 while its long-term meal imports are expected to stay in the range of 600 to 700 tmt.
- Like Japan, **Taiwan** also imports relatively larger quantities of beans for domestic crushing. Taiwanese bean imports are expected to increase by about 400 tmt by the end of the period.
- Economic recovery in the **FSU** countries is expected to increase their demand for both soybeans and soybean meal. Their total soybean imports are projected to more than double to 246 tmt from the current level of 110 tmt over the period.
- **South Korean** bean and meal demand is also projected to grow at a faster rate, with bean imports increasing by more than 225 tmt and meal imports by 500 tmt by the end of the period. **Mexican** soybean imports are also projected to grow by about 800 tmt over this period.

Soybean Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Argentina	2,200	2,300	2,427	2,678	2,766	2,889	2,986	3,099	3,212	3,256	3,293
Brazil	2,100	3,000	3,542	3,796	4,021	4,218	4,443	4,663	4,899	5,215	5,364
Canada	530	350	480	566	579	569	560	542	526	513	497
Paraguay	1,400	1,450	1,547	1,575	1,598	1,617	1,638	1,661	1,679	1,694	1,713
Total Non-U.S.	6,230	7,100	7,996	8,615	8,964	9,292	9,627	9,964	10,317	10,679	10,867
United States	23,052	24,230	23,929	23,860	23,905	24,049	24,305	24,512	24,754	25,057	25,511
Trade Share	78.7%	77.3%	75.0%	73.5%	72.7%	72.1%	71.6%	71.1%	70.6%	70.1%	70.1%
Total Net Exports	29,282	31,330	31,925	32,475	32,868	33,340	33,932	34,476	35,071	35,736	36,378
Net Importers											
Eastern Europe	280	310	324	371	395	396	403	401	405	415	416
European Union	13,918	14,063	14,060	14,308	14,390	14,473	14,592	14,648	14,754	14,868	14,947
Former Soviet Union	120	110	121	131	143	157	173	189	207	226	246
Russian Republic	50	40	57	68	76	85	93	101	109	118	126
Ukraine	20	20	18	17	18	20	24	30	36	45	54
Other Former Soviet Union	50	50	45	46	49	52	55	58	61	64	66
Japan	4,800	4,860	4,932	4,972	5,003	5,029	5,057	5,084	5,112	5,140	5,167
Developing	7,084	7,879	8,342	8,590	8,940	9,321	9,732	10,129	10,482	10,862	11,236
China	572	1,300	1,472	1,576	1,761	1,985	2,248	2,510	2,732	2,984	3,233
India	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,562	2,679	2,766	2,906	3,021	3,120	3,205	3,281	3,353	3,419	3,481
South Korea	1,400	1,400	1,504	1,483	1,500	1,521	1,544	1,566	1,589	1,610	1,629
Taiwan	2,550	2,500	2,600	2,625	2,657	2,695	2,736	2,771	2,808	2,849	2,893
Rest of World	3,688	3,826	4,146	4,104	3,997	3,964	3,975	4,025	4,111	4,225	4,367
Residual	-609	282	0	0	0	0	0	0	0	0	0
Total Net Imports	29,282	31,330	31,925	32,475	32,868	33,340	33,932	34,476	35,071	35,736	36,378
Soybean Prices	(U.S. Dollars per Metric Ton)										
U.S. Export Price FOB Gulf	267.23	270.28	246.76	231.63	230.50	235.15	237.32	241.04	244.83	249.61	257.59
CIF Rotterdam	304.00	305.20	282.09	267.22	266.11	270.68	272.81	276.47	280.19	284.89	292.73

Soybean Meal Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Argentina	8,000	8,200	8,620	8,860	8,998	9,153	9,345	9,518	9,698	9,938	10,192
Brazil	10,700	11,150	11,691	11,880	12,107	12,167	12,306	12,436	12,583	12,680	12,857
India	2,500	2,200	2,776	2,825	2,872	2,981	3,118	3,235	3,357	3,474	3,595
Paraguay	508	587	643	690	727	764	805	841	883	928	970
Total Non-U.S.	21,708	22,137	23,730	24,256	24,704	25,065	25,574	26,030	26,520	27,020	27,613
United States	5,377	5,791	5,753	5,613	5,616	5,783	6,012	6,003	5,990	5,948	6,026
Trade Share	19.9%	20.7%	19.5%	18.8%	18.5%	18.7%	19.0%	18.7%	18.4%	18.0%	17.9%
Total Net Exports	27,085	27,928	29,483	29,869	30,320	30,849	31,586	32,033	32,510	32,968	33,640
Net Importers											
Canada	760	630	643	664	683	710	739	762	776	792	815
Eastern Europe	1,853	1,810	1,965	2,036	2,085	2,130	2,168	2,203	2,243	2,299	2,360
European Union	12,758	12,680	13,203	13,427	13,339	13,273	13,436	13,707	13,820	13,892	14,042
Former Soviet Union	585	590	541	561	569	588	601	613	623	635	640
Russian Republic	95	100	94	100	98	99	106	110	113	119	125
Ukraine	250	250	208	216	224	238	243	249	253	257	255
Other Former Soviet Union	240	240	239	245	247	251	252	255	257	259	260
Japan	740	657	742	726	705	686	677	672	653	623	588
Developing	2,181	2,917	3,105	3,345	3,449	3,564	3,658	3,789	3,908	3,979	4,035
China	829	1,700	1,676	1,811	1,899	1,992	2,046	2,108	2,195	2,219	2,234
Mexico	302	277	326	369	330	304	300	314	299	304	303
South Korea	1,000	900	1,052	1,122	1,182	1,237	1,287	1,340	1,385	1,427	1,471
Taiwan	50	40	50	43	38	32	25	27	29	29	27
Rest of World	9,215	9,186	9,285	9,109	9,490	9,898	10,306	10,287	10,487	10,747	11,159
Residual	-1,007	-542	0	0	0	0	0	0	0	0	0
Total Net Imports	27,085	27,928	29,483	29,869	30,320	30,849	31,586	32,033	32,510	32,968	33,640
Soybean Meal Prices	(U.S. Dollars per Metric Ton)										
U.S. Market Price Decatur	245.82	240.34	216.93	207.38	209.92	214.81	216.82	215.56	216.48	218.30	221.65
CIF Rotterdam	256.00	273.08	232.65	224.22	226.46	230.78	232.56	231.45	232.26	233.86	236.82

Soybean Oil Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Argentina	1,600	1,636	1,768	1,815	1,841	1,871	1,907	1,941	1,976	2,023	2,073
Brazil	1,250	1,430	1,586	1,620	1,701	1,739	1,796	1,840	1,889	1,917	1,977
European Union	500	515	422	429	401	381	358	331	309	287	268
Paraguay	127	144	162	175	185	194	206	216	227	240	251
Total Non-U.S.	3,477	3,725	3,937	4,040	4,127	4,185	4,267	4,327	4,401	4,467	4,570
United States	407	731	789	820	839	914	956	1,016	1,075	1,145	1,209
Trade Share	10.5%	16.4%	16.7%	16.9%	16.9%	17.9%	18.3%	19.0%	19.6%	20.4%	20.9%
Total Net Exports	3,884	4,457	4,727	4,861	4,966	5,099	5,223	5,343	5,476	5,612	5,778
Net Importers											
Canada	0	-20	-31	-36	-39	-41	-43	-44	-45	-46	-46
Eastern Europe	110	113	118	123	129	134	141	147	153	160	167
Former Soviet Union	57	74	90	94	96	96	100	103	106	108	110
Russian Republic	32	32	43	47	49	49	54	58	62	65	69
Ukraine	25	38	42	43	43	43	42	42	40	39	36
Other Former Soviet Union	0	4	4	4	4	4	4	4	4	4	4
Japan	50	-54	30	20	21	22	23	23	23	23	23
Developing	1,524	1,653	1,644	1,677	1,736	1,769	1,821	1,883	1,971	2,072	2,198
China	1,379	1,460	1,551	1,583	1,627	1,660	1,710	1,758	1,826	1,903	1,982
India	60	110	2	1	12	6	-4	-9	-13	-14	6
Mexico	40	38	47	38	33	30	33	41	52	65	79
South Korea	35	35	32	43	54	64	74	85	95	107	119
Taiwan	10	10	12	12	10	9	8	9	10	12	13
Rest of World	2,331	2,557	2,876	2,982	3,023	3,119	3,182	3,231	3,269	3,295	3,327
Residual	-188	133	0	0	0	0	0	0	0	0	0
Total Net Imports	3,884	4,457	4,727	4,861	4,966	5,099	5,223	5,343	5,476	5,612	5,778
Soybean Oil Prices	(U.S. Dollars per Metric Ton)										
U.S. Market Price Decatur	545.64	510.50	492.41	464.66	453.04	461.47	468.40	490.32	509.17	531.10	557.45
FOB Dutch	575.00	531.33	507.79	476.90	463.96	473.34	481.06	505.46	526.45	550.87	580.22

World Rapeseed and Rapeseed Products

- Total rapeseed trade is expected to increase by more than 35 percent during the projection period. **China** is expected to stay a net importer of rapeseed during this period. The canola area in **Canada** is expected to recover from last year's record drop and strengthen during the projection period.
- Canola meal is imported from Canada, primarily by the **EU** and Japan, for its meal quality. Rapemeal from the rapeseed varieties grown in countries like China and India is not suitable for animal consumption. Most of the rapemeal is exported from India to the EU for industrial purposes. Total trade in meal also shows similar growth as rapeseed.
- Rape oil is used in cooking in China, India and some other developing countries, and is also used in several industrial products. Increasing incomes in these countries are expected to drive the demand for rape oil, increasing total trade volume by about 50 percent by the end of the period.
- Canola area in **Canada** shrank to 3.5 mha in 1996/97 from the record 5.3 mha in the previous year. We project this area to recover to 4.6 mha in 1997/98 and increase to around 5.7 mha by the end of the period. Increased demand for rapeseed oil from China and its increasing import requirements of rapeseed are expected to drive much of the rapeseed market. Total Canadian rapeseed exports are projected to reach 3.5 mmt by 2005/06.
- Increased demand for rapeseed oil due to increasing incomes in **China** is expected to keep China a net importer of rapeseed in the projection period. Although the area harvested under rapeseed is expected to grow by another 1.7 mha by the end of the period, Chinese rapeseed imports are projected to increase to 166 tmt by 2005/06. Chinese imports of rape oil would be about 763 tmt by 2005/06. The meal from rapeseed varieties grown in China is generally unsuitable for livestock feeding due to its highly toxic composition. Genetic research is underway in Chinese universities as well as at the Chinese Academy of Agricultural Sciences to find a widely cultivable variety of rapeseed with lower toxic remnants in meal. No such breakthrough is expected in the short run and China is projected to continue to be a net exporter of rape meal.
- Rapeseed varieties grown in **India** also face the same challenge. While all of the rapeseed output is crushed domestically to meet oil demand, most of the meal is exported to countries like the EU where it is used for industrial purposes. Indian exports of rapeseed meal are expected to increase to more than 1.3 mmt by the end of the projection period. Like China, the Indian government is also placing added emphasis on research to further refine rape meal to reduce the toxic level. However, no significant results have been obtained so far.
- Rapeseed is the most widely grown variety of oilseed in the **EU**. It is projected that the total rapeseed area harvested would grow from 2.8 mha in 1995/96 to about 3 mha by 2005/06 with an associated growth in rape oil exports to nearly 1 mmt by the end of the period.
- **Japan** is the largest importer of rapeseed, primarily the canola variety from Canada. Its rapeseed imports are projected to continue rising steadily, reaching 1.89 mmt by 2005/06.

Rapeseed Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Canada	2,687	2,517	2,632	2,852	3,009	3,121	3,177	3,284	3,382	3,447	3,540
China	7	-100	-86	-96	-106	-116	-126	-136	-146	-156	-166
Total Net Exports	2,694	2,417	2,546	2,756	2,903	3,005	3,051	3,148	3,236	3,291	3,374
Net Importers											
European Union	656	137	471	671	776	769	816	833	874	877	916
India	0	0	0	0	0	0	0	0	0	0	0
Japan	1,840	1,745	1,802	1,804	1,814	1,819	1,836	1,845	1,859	1,875	1,892
Rest of World	198	534	273	281	313	416	399	470	502	539	566
Residual	0	1	0	0	0	0	0	0	0	0	0
Total Net Imports	2,694	2,417	2,546	2,756	2,903	3,005	3,051	3,148	3,236	3,291	3,374
Rapeseed Prices	(Dollars per Metric Ton)										
Cash Vancouver	314.48	332.54	325.76	307.41	304.33	319.37	319.65	334.24	342.34	351.39	356.69
CIF Hamburg	296.00	302.08	298.72	282.14	279.35	292.94	293.20	306.39	313.72	321.90	326.69

Rapeseed Meal Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Canada	1,150	1,259	1,455	1,484	1,513	1,559	1,598	1,597	1,641	1,685	1,729
China	307	300	297	269	241	215	211	218	243	287	348
India	995	900	873	939	968	989	1,028	1,071	1,127	1,197	1,279
Total Net Exports	2,452	2,459	2,625	2,691	2,722	2,762	2,838	2,887	3,011	3,168	3,356
Net Importers											
European Union	777	862	969	909	874	909	932	972	1,023	1,090	1,139
Japan	204	200	211	227	232	237	236	242	244	244	243
Rest of World	1,257	1,386	1,445	1,555	1,616	1,617	1,669	1,673	1,744	1,834	1,974
Residual	214	11	0	0	0	0	0	0	0	0	0
Total Net Imports	2,452	2,459	2,625	2,691	2,722	2,762	2,838	2,887	3,011	3,168	3,356
Rapeseed Meal Prices	(Dollars per Metric Ton)										
FOB Hamburg	180.00	187.33	155.78	150.20	151.68	154.54	155.72	154.98	155.52	156.58	158.54

Rapeseed Oil Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters											
					(1,000 Metric Tons)						
Canada	344	584	731	744	755	777	799	791	813	828	843
European Union	816	669	703	670	739	782	820	870	889	907	932
Total Net Exports	1,160	1,253	1,435	1,413	1,494	1,559	1,619	1,661	1,702	1,735	1,774
Net Importers											
China	184	250	356	455	537	596	649	685	718	736	763
India	40	40	46	26	30	42	47	51	49	39	23
Japan	10	10	9	15	18	22	22	24	25	24	23
Rest of World	978	956	1,024	917	909	899	902	901	910	935	965
Residual	-52	-3	0	0	0	0	0	0	0	0	0
Total Net Imports	1,160	1,253	1,435	1,413	1,494	1,559	1,619	1,661	1,702	1,735	1,774
Rapeseed Oil Prices											
					(Dollars per Metric Ton)						
FOB Rotterdam	566.00	556.92	503.06	456.81	443.14	459.50	476.00	510.66	543.25	586.50	627.84

World Sunflower Seed and Products

- **Argentina** is by far the world's largest exporter of sunflower seed, meal and oil, with the **EU** the largest importer of sunflower seed and meal. **Russian** imports of sunflower meal and oil are projected to continue their upward trend as the economy begins to grow.
- Argentinean area under sunflowers responded negatively to world seed prices in 1996/97 when total area shrank from 3.2 mha in the previous year to about 2.7 mha. However, harvested area is projected to recover to about 3.3 mha by the end of the period as sunflower seed prices bounce back from a low of \$276 per mt in 1999/00. Another area for growth in the area planted under sunflower is the **Rest-of-World**, which includes Eastern Europe and developing countries like India.
- Sunflower oil consumption is on the increase as well. We expect total consumption to reach about 10.8 mmt by the end of the projection period. New markets are likely to emerge for sunflower oil, showing promise for extended growth in this sector. Countries like **India** and **China** hold the key to the ultimate outcome but consumption in both these countries is steadily rising.

Sunflower Seed Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Argentina	800	600	657	806	823	965	1,028	1,108	1,133	1,214	1,273
China	40	40	44	46	41	43	43	46	47	46	49
Russia	0	665	639	619	604	592	583	577	572	568	565
Ukraine	300	-300	100	110	120	130	140	150	160	170	180
Other FSU-15	138	110	120	125	130	135	140	145	150	155	160
Rest of World	-158	134	182	24	147	144	235	235	265	248	251
Total Net Exports	1,120	1,249	1,742	1,729	1,865	2,009	2,170	2,261	2,326	2,401	2,479
Net Importers											
European Union	1,738	1,376	1,442	1,454	1,615	1,784	1,970	2,086	2,176	2,276	2,379
Residual	-618	-127	300	275	250	225	200	175	150	125	100
Total Net Imports	1,120	1,249	1,742	1,729	1,865	2,009	2,170	2,261	2,326	2,401	2,479
Sunflower Seed Prices	(U.S. Dollars per Metric Ton)										
CIF Rotterdam	313.00	297.08	288.21	276.86	276.01	279.50	281.13	283.91	286.76	290.35	296.33

Sunflower Meal Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Argentina	1,849	1,665	1,789	1,762	1,773	1,791	1,791	1,883	1,993	2,045	2,094
China	80	75	68	74	73	67	63	57	50	45	39
Ukraine	117	26	37	35	32	29	31	32	31	30	28
Other FSU-15	14	-20	-14	-10	-14	-18	-21	-24	-28	-32	-36
Total Net Exports	2,060	1,746	1,879	1,860	1,863	1,869	1,863	1,948	2,046	2,087	2,125
Net Importers											
European Union	1,695	1,574	1,684	1,648	1,641	1,641	1,647	1,699	1,738	1,775	1,815
Russia	5	85	86	79	92	107	101	107	118	127	132
Rest of World	165	109	109	133	130	121	116	142	189	186	178
Residual	195	-22	0	0	0	0	0	0	0	0	0
Total Net Imports	1,865	1,768	1,879	1,860	1,863	1,869	1,863	1,948	2,046	2,087	2,125
Sunflower Meal Prices	(U.S. Dollars per Metric Ton)										
CIF Rotterdam	151.00	153.75	136.93	132.69	133.81	135.99	136.88	136.32	136.73	137.53	139.02

Sunflower Oil Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Argentina	1,419	1,300	1,376	1,379	1,442	1,501	1,575	1,669	1,779	1,876	1,958
China	0	0	0	0	0	0	0	0	0	0	0
European Union	227	279	233	243	244	258	261	249	227	213	202
Ukraine	259	270	225	256	276	267	279	275	282	279	287
Total Net Exports	1,905	1,849	1,834	1,879	1,962	2,027	2,115	2,193	2,288	2,368	2,447
Net Importers											
Russia	255	180	261	216	232	226	226	238	251	268	286
Other FSU-15	-110	-27	15	-5	-11	-12	-19	-18	-24	-29	-37
Rest of World	1,505	1,430	1,559	1,668	1,740	1,812	1,907	1,974	2,061	2,128	2,198
Residual	255	266	0	0	0	0	0	0	0	0	0
Total Net Imports	1,905	1,849	1,834	1,879	1,962	2,027	2,115	2,193	2,288	2,368	2,447
Sunflower Oil Prices	(U.S. Dollars per Metric Ton)										
FOB Rotterdam	617.00	578.92	548.82	515.39	501.40	511.55	519.90	546.30	569.00	595.42	627.17

World Palm Oil Products

- **Malaysia** and **Indonesia** are the major producers of palm oil and related products, accounting for more than 75 percent of total production. Among the major importing countries are China, EU, and India. We project a steady increase in palm oil production for Malaysia and Indonesia from about 16 mmt at present to more than 22 mmt by 2005/06. Palm oil consumption is expected to drive this surge, mainly from countries like **China**, whose palm oil imports are projected to reach 2.1 mmt by the end of the period.
- The **EU** accounts for almost all of the world trade in palm kernel meal and is expected to import nearly 1 mmt more meal by the end of the period. Its imports of palm oil are expected to increase by about 400 tmt by 2005/06.
- While planting of palm trees is on the rise in traditional producers such as Malaysia and Indonesia, the palm oil market will also be affected by the increased emphasis on palm production in countries such as India.

World Palm Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Palm Oil											
Net Exporters	(1,000 Metric Tons)										
Malaysia	6,650	7,100	7,039	7,047	7,177	7,248	7,466	7,671	7,849	8,047	8,213
Indonesia	1,990	2,090	2,263	2,513	2,704	2,928	3,011	3,087	3,198	3,286	3,413
Total Net Exports	8,640	9,190	9,302	9,560	9,881	10,176	10,477	10,758	11,046	11,334	11,626
Net Importers											
China	806	1,400	1,525	1,608	1,689	1,759	1,834	1,899	1,969	2,039	2,113
European Union	1,600	1,618	1,622	1,672	1,729	1,786	1,842	1,892	1,943	1,991	2,042
Rest of World	5,945	6,174	6,155	6,280	6,463	6,631	6,801	6,967	7,135	7,303	7,472
Residual	289	-2	0	0	0	0	0	0	0	0	0
Total Net Imports	8,351	9,190	9,302	9,560	9,881	10,176	10,477	10,758	11,046	11,334	11,626
Rotterdam Palm Oil Price	(U.S. Dollars per Metric Ton)										
	628.00	530.25	462.70	430.06	416.55	426.34	434.42	460.22	482.67	509.08	541.24
Palm Kernel Oil											
Net Exporters	(1,000 Metric Tons)										
Malaysia	400	340	347	318	257	245	207	206	190	186	185
Indonesia	310	330	362	390	423	459	489	497	515	549	584
Total Net Exports	710	670	708	708	680	704	695	703	705	736	769
Net Importers											
European Union	278	307	293	287	283	280	277	274	271	269	266
Rest of World	299	328	415	421	397	424	419	429	434	467	503
Residual	133	35	0	0	0	0	0	0	0	0	0
Total Net Imports	710	670	708	708	680	704	695	703	705	736	769
Rotterdam Kernel Oil Price	(U.S. Dollars per Metric Ton)										
	677.00	705.00	717.81	674.45	656.62	669.54	680.23	714.51	744.51	780.01	823.49
Palm Kernel Meal											
Net Exporters	(1,000 Metric Tons)										
Malaysia	1,332	1,360	1,399	1,485	1,520	1,592	1,638	1,705	1,761	1,828	1,899
Indonesia	500	533	530	609	660	707	742	748	763	795	823
Rest of World	141	140	149	141	143	149	152	155	160	165	172
Total Net Exports	1,973	2,033	2,078	2,235	2,324	2,447	2,532	2,608	2,684	2,788	2,894
Net Importers											
European Union	1,913	1,998	2,078	2,235	2,324	2,447	2,532	2,608	2,684	2,788	2,894
Residual	60	35	0	0	0	0	0	0	0	0	0
Total Net Imports	1,973	2,033	2,078	2,235	2,324	2,447	2,532	2,608	2,684	2,788	2,894
Rotterdam Kernel Meal Price	(U.S. Dollars per Metric Ton)										
	137.00	134.58	132.54	127.66	128.96	131.46	132.49	131.84	132.31	133.24	134.95

World Rice

- World rice area is expected to increase by 1 mha over the next 10 years. Production, which increases mostly through yield growth, is likely to keep pace with consumption in the first five years, but consumption is expected to outpace production in the later period. Additional production in the first five years puts downward pressure on price by driving the Thai 100 percent rice price from \$360 per mt in 1996 to \$305 per mt in 1999/00. But after 1999/00, the Thai price steadily increases and reaches \$340 per mt by 2005/06. Unlike wheat and coarse grains, no significant changes in rice trade are projected.
- A modest decline in area and yield in **Thailand** resulted in a 200 tmt decrease in rice production in 1996/97. Even with lower production, exports and carryover stocks increased in 1996 because of stagnant domestic consumption. During the projection period, rice production increases slowly through yield growth, even with declining area. Declining per capita consumption leads to trade growth of 1.1 mmt per year from 1996/97 to 2005/06.
- **Vietnam** has come a long way in rice trade, from being an importer of rice until 1987 to being the second largest exporter in 1996. Production will increase primarily through yield increases in the next 10 years. Unlike many other Asian countries, per capita consumption of rice is expected to rise slowly. As consumption increases, export growth will be limited, but Vietnam is still projected to keep its ranking as the world's second largest rice exporter by the end of the projection period.
- Although **Indian** rice production increased by slightly more than 1.5 mmt in 1996, domestic consumption accounted for most of the increase in production, leading to a 1 mmt reduction in exports. Currently the third largest exporter, India is expected to fall to fourth place in 1997/98 but is expected to return to its third place after 1999 by surpassing the United States.
- Increased production has enabled **Pakistan** to maintain relatively high levels of rice exports again in 1996/97. Slow area and yield growth are projected to be sufficient for small increases in domestic use while maintaining exports of approximately 1.1 mmt per year.
- Despite a 3 mmt increase in rice production in 1996/97, **China** still finds itself in a net import position, even higher than its 1995/96 level. Future area expansion is likely to be marginal, but slowly declining per capita consumption will allow China to reduce its net imports by 2005/06.
- **Myanmar's** 1996/97 rice production was slightly higher than its 1995/96 level because of higher yields. Production is projected to increase by 2 mmt over the next 10 years, both through additional area and yield growth. Even with increasing per capita consumption, production growth is slightly faster than consumption increases, allowing exports to increase from 500 tmt in 1996/97 to 1.2 mmt in 2005/06.
- High levels of domestic consumption in **Indonesia** have kept this country from achieving self-sufficiency in rice in 1996/97. Even with an additional 700 thousand ha of rice area in the next 10 years, Indonesia is not projected to supply all of its domestic rice requirements during that time.
- Countries such as **Japan** and **South Korea**, and the **EU**, have entered a period when rice imports are set according to GATT commitments. By 2000/01, Japan must import 758 tmt of rice and the EU must import 572 tmt. This is not a significant increase for the EU, but is a substantial increase for Japan, particularly because this signals a major change in rice policy.

Rice Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
China	-550	-750	-993	-821	-703	-488	-370	-166	-153	-143	-85
India	3,250	2,250	1,939	1,777	1,990	2,004	1,973	1,887	1,812	1,879	1,791
Myanmar (Burma)	300	500	613	701	771	840	904	965	1,040	1,118	1,228
Pakistan	1,400	1,400	1,265	1,304	1,456	1,283	1,256	1,162	1,146	1,096	1,105
Thailand	5,200	5,500	5,853	5,830	5,933	6,035	6,104	6,230	6,331	6,444	6,545
Vietnam	3,000	2,500	2,424	2,330	2,243	2,232	2,214	2,193	2,157	2,164	2,168
Total Non-U.S.	12,600	11,400	11,102	11,121	11,690	11,907	12,081	12,271	12,333	12,559	12,753
United States	2,451	2,171	2,228	2,022	1,929	1,806	1,731	1,636	1,545	1,479	1,444
Trade Share	16.3%	16.0%	16.7%	15.4%	14.2%	13.2%	12.5%	11.8%	11.1%	10.5%	10.2%
Total Net Exports	15,051	13,571	13,330	13,142	13,619	13,712	13,812	13,907	13,878	14,038	14,197
Net Importers											
European Union	519	343	553	562	572	583	587	592	597	602	607
Indonesia	1,250	1,500	1,548	1,743	1,998	2,020	1,930	1,799	1,665	1,556	1,502
Japan	250	300	331	407	583	758	758	758	758	758	758
Saudi Arabia	615	700	746	781	817	851	887	923	934	945	956
Rest of World/Residual	11,900	10,533	10,023	9,520	9,620	9,569	9,719	9,904	9,993	10,246	10,442
Total Net Imports	15,051	13,571	13,330	13,142	13,619	13,712	13,812	13,907	13,878	14,038	14,197
Rice Prices	(U.S. Dollars per Metric Ton)										
FOB Bangkok 100B NPQ /a	367.00	340.42	318.90	314.25	306.49	314.36	315.88	318.50	319.45	331.67	340.61
FOB Houston	431.25	440.59	408.36	405.58	399.71	409.99	413.81	418.86	422.23	437.35	449.27

a\ NPQ=Nominal Price Quote

World Cotton

- **Net cotton trade** fell to 4.46 mmt in 1996/97 due primarily to reduced Chinese imports and lower exports out of Pakistan. With reduced production and continued strong prices, U.S. exports and trade share declined relative to 1995/96 levels. The long-term trends suggest that net cotton trade should marginally decline as raw cotton consumption continues to decline in nonproducing countries.
- Net exports by **Africa** continued the upward trend in 1996/97, reaching 869 tmt due to increased production from a substantial increase in cotton area and above-average yields. Net exports generally decline after 1996/97 as higher consumption more than offset production increases.
- With increased production in recent years, **Argentina** has established itself as a substantial net exporter of cotton. Net exports grew to 312 tmt in 1996/97 as high yields increased production despite a decline in area. With increased competition from other crops, cotton area is projected to decline in the longer term. As a result, net exports are not projected to continue to increase over the long term.
- Increased cotton supplies allowed **India** to expand net exports to 244 tmt in 1996/97. Cotton acreage for 1997/98 is projected to decline due to weak internal prices. As a result, India's role as a net exporter declines from 1996/97 levels. India should remain a small net exporter of raw cotton because their production is milled domestically.
- Lower yields in 1996/97 reduced net exports from **Pakistan** to 43 tmt. With flat area and normal yields, Pakistan will increase net exports in 1997/98 and remain a small net exporter over the projection period.
- Cotton exports from the **United States** will rebound in 1997/98 from the low level of 1996/97 as the United States is able to expand its trade share. Net exports generally decline thereafter as world net trade falls.
- As cotton area has shifted to grains and oilseeds, **Brazil** has increasingly looked to the international market to meet its growing domestic consumption. With area projected to remain flat and domestic mill use continuing to increase, net imports are projected to grow over the period.
- Net imports by **China** are projected to decline to 398 tmt in 1996/97 as internal supplies remain stable and mill use declines. Net imports contract longer term with marginal growth in production and stable to declining domestic mill use.
- **Other Asia** is projected to increase net cotton imports from 1.27 mmt in 1996/97 to almost 1.42 mmt by 2005/06 as increased mill consumption is fueled by population and income growth.
- Although down slightly from the 1995/96 level, **world cotton prices** remain above historical levels for 1996/97 with the A-Index averaging \$1,751 per mt. Strong demand and continued tightness in stocks have contributed to the recent price levels. As world production and stocks recover in 1997/98, the A-Index is projected to fall to \$1,707 per mt. Prices generally range between \$1,650 and \$1,800 per mt thereafter.

All-Cotton Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Africa	626	869	781	779	779	762	758	750	745	742	741
Argentina	212	312	303	291	287	286	288	290	291	293	294
Australia	305	479	441	418	416	421	428	436	443	450	458
India	118	244	33	0	18	39	55	63	71	81	89
Other FSU-15	335	276	321	347	351	351	355	358	361	363	366
Other Latin America	-18	-98	-130	-149	-154	-156	-157	-158	-160	-164	-169
Other Middle East	173	244	199	202	202	199	197	193	190	187	184
Pakistan	285	43	105	117	103	96	89	80	71	62	53
Turkey	-42	-185	-152	-144	-144	-140	-133	-126	-121	-118	-114
Uzbekistan	979	935	960	983	980	973	972	972	971	969	968
Total Non-U.S.	2,973	3,119	2,861	2,843	2,836	2,831	2,852	2,857	2,861	2,866	2,871
United States	1,585	1,339	1,472	1,521	1,486	1,450	1,444	1,429	1,414	1,398	1,379
Total Net Exports	4,558	4,458	4,333	4,364	4,323	4,281	4,296	4,286	4,276	4,264	4,250
U.S. Trade Share of Net	34.8%	30.0%	34.0%	34.9%	34.4%	33.9%	33.6%	33.3%	33.1%	32.8%	32.4%
Net Importers											
Brazil	348	523	624	632	634	632	631	633	637	642	647
Canada	65	65	65	65	65	65	65	65	65	65	65
China	658	398	290	326	296	264	286	266	237	206	173
Eastern Europe	292	300	299	305	305	304	305	308	311	314	316
European Union	649	708	601	576	561	545	532	521	510	500	489
Japan	331	310	282	272	259	246	232	217	204	190	176
Mexico	55	33	70	69	71	82	88	97	105	113	121
Other Asia	1,212	1,274	1,296	1,324	1,341	1,352	1,362	1,377	1,393	1,408	1,423
Other Western Europe	40	38	38	37	36	35	34	33	32	31	30
Russia	239	207	205	200	204	212	223	237	253	271	290
South Korea	336	314	304	301	297	293	289	286	282	278	274
Taiwan	249	238	234	232	229	227	224	223	222	221	220
Residual	84	50	25	25	25	25	25	25	25	25	25
Total Net Imports	4,558	4,458	4,333	4,364	4,323	4,281	4,296	4,286	4,276	4,264	4,250
Cotton Prices	(U.S. Dollars per Metric Ton)										
U.S. Farm Price	1,695	1,573	1,466	1,424	1,433	1,470	1,500	1,512	1,517	1,527	1,541
Cotlook A Index /a	1,886	1,751	1,707	1,653	1,665	1,712	1,751	1,766	1,773	1,785	1,804
CIF Northern Europe											

a/ The "A" index is the average of the five lowest CIF Northern European quotes of the following descriptions (Middling 1-3/32"): Memphis; Calif./Ariz.; Mexican; Central American; Paraguayan; Turkish Izmir/Antalya; Central Asian; Pakistani 1503; Indian H-4; Chinese 329; African 'Franc Zone'; Tanzanian; Greek; and Australian. Source: Cotlook, Ltd., Liverpool, England.

World Sugar

- **Brazilian** sugar production in 1996/97 is predicted to be slightly higher than the 1995/96 level. Sugar production is expected to grow faster than consumption, leading to export growth of more than 1 mmt by 2005/06.
- **Cuban** production is likely to expand steadily over the projection period and will outpace increases in consumption, leading to a small increase in exports. However, increases in financing could lead to more rapid recovery of the Cuban sugar industry and higher exports.
- Sugar production in the **EU** is projected to increase by 450 tmt in 1996/97 because of small increases in both area and yield. Even though production is expected to be stable over the projection period, sugar exports decline because of GATT commitments on subsidized exports.
- **Australian** sugar production in 1996/97 is up slightly relative to the 1995/96 level. During the next 10 years, production is expected to grow steadily, mostly through yield growth. With a stagnant domestic demand, exports are projected to increase from 3.9 mmt in 1996/97 to 4.3 mmt by 2005/06.
- **Thailand's** sugar production is expected to increase by more than 1 mmt in the next 10 years because of small increases in area and yield. Higher growth in production relative to consumption leads to a rise in exports during the projection period.
- **China's** high carryover stocks in 1996/97 are likely to reduce imports by slightly less than half of 1995/96 levels. But imports are expected to double in 1997/98 and increase marginally for the remainder of the projection period.
- Sugar production in the **FSU** is expected to grow steadily for the next 10 years but consumption is projected to increase at a faster rate, causing imports to increase, particularly in the last half of the projection period.

Sugar Trade

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Net Exporters	(1,000 Metric Tons)										
Australia	3,998	4,043	3,996	4,077	4,095	4,091	4,139	4,160	4,212	4,256	4,308
Brazil	4,770	4,770	4,896	5,129	5,236	5,400	5,541	5,659	5,737	5,821	5,909
Cuba	3,250	3,249	3,364	3,398	3,432	3,466	3,500	3,535	3,570	3,605	3,641
European Union	3,426	2,410	2,654	2,711	2,669	2,523	2,522	2,471	2,472	2,459	2,461
Thailand	3,428	3,597	3,666	3,806	3,904	3,951	4,018	4,074	4,139	4,202	4,265
Total Net Exports	18,872	18,069	18,576	19,121	19,336	19,431	19,720	19,899	20,130	20,342	20,583
Net Importers											
China	1,230	727	1,518	1,527	1,535	1,544	1,553	1,562	1,570	1,579	1,588
Eastern Europe	1,023	366	346	377	368	358	347	336	323	310	295
Former Soviet Union	3,171	3,035	2,920	3,119	3,057	3,122	3,188	3,256	3,325	3,395	3,466
Japan	1,672	1,641	1,634	1,647	1,673	1,690	1,709	1,723	1,736	1,748	1,759
Rest of World	10,549	10,148	10,057	10,153	10,460	10,486	10,642	10,679	10,749	10,788	10,844
Total Non-U.S.	17,645	15,917	16,476	16,823	17,094	17,200	17,439	17,555	17,703	17,819	17,953
United States	1,227	2,153	2,100	2,298	2,242	2,231	2,281	2,344	2,427	2,523	2,631
Trade Share	6.5%	11.9%	11.3%	12.0%	11.6%	11.5%	11.6%	11.8%	12.1%	12.4%	12.8%
Total Net Imports	18,872	18,069	18,576	19,121	19,336	19,431	19,720	19,899	20,130	20,342	20,583
FOB Caribbean Price	(U.S. Dollars per Metric Ton)										
	306	273	300	301	272	282	274	282	287	296	303

World Beef and Veal

- Driven by the cattle cycle, the **U.S.** cattle price is projected to continue to strengthen until 2001, gaining nearly 26 percent over the 1996 average Nebraska fed steer price of \$1,436 per mt. While strong income growth in Asia and Mexico promotes world import demand, the United States is not likely to capture a large share of this during the next five years because of high U.S. prices. However, during the expansion phase of the cycle from 2001, U.S. net exports are projected to rise rapidly by a total of 650 tmt as prices decline until 2006.
- Formal announcement in March 1996 of the likely health hazard of BSE led to an 11 percent drop in beef consumption and an 8 percent drop in beef producer prices in the **EU** for that year. Consumption is projected to recover partially from this shock over the next few years, yet the long-term trend decline of the past will keep per capita consumption levels depressed. The eradication program is estimated to have removed 930 thousand cattle and 400 thousand calves by the end of 1996, with another 770 thousand cattle and 350 thousand calves to be removed in 1997. Despite this supply reduction, the combined decline in domestic and export demands results in re-accumulation of stocks to nearly 900 tmt. Unable to export any significant quantities unsubsidized over the WTO limits and facing low domestic demand, the **EU** is not likely to be able to significantly reduce stocks within the projection period under the prevailing policy mix.
- Beef consumption in **Japan** slowed down in mid-1996 from the BSE and *E. coli* threats in a row, thus ending the 7 to 9 percent average annual increases seen since liberalization. This setback is expected to be temporary, and the continuing trend of Western lifestyle will strengthen beef's share in the Japanese diet, while domestic is flat. Thus, import demand is projected to grow, especially as U.S. prices fall after 2001.
- **South Korea** imports at WTO commitment levels until 2000. Thereafter, a weakening world price for beef prompts increased purchases on the world market, and imports increase by 33 percent during the last five years.
- Steady income growth and low beginning per capita beef consumption levels, coupled with NAFTA-related easing of import barriers, will enable **Mexican** consumption to grow at an average annual rate of 4 percent. Share of imports in consumption grows from 5 percent in 1997 to more than 15 percent by the end of projection because of the relative weakening of the import price.
- While the cattle herd expands in **Brazil** in response to economic reform and stability, gains in productivity remain sluggish due to poor animal health and husbandry conditions. On the other hand, the economic reform is boosting domestic demand growth, outpacing domestic supply, and thus the projection is for exports to decline somewhat, especially in the later period when world prices are low.
- **Australia** recovers from drought in 1996, with a near-term stagnation in beef output as herd rebuilding is undertaken. This will be followed by a gradual increase in production specifically targeted to the demand growth in High-Income East Asia. Production is projected to expand at over 1 percent annually in the first five years when U.S. prices rise, enabling nearly 40 tmt additional exports per year.
- A productivity-driven expansion in **Canadian** beef production is projected in view of the improving competitiveness in the West. This enables Canada to retain a steady net export level close to 100 tmt over the next 10 years.

Beef and Veal Trade

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Net Exporters	(1,000 Metric Tons)										
Argentina	446	478	440	454	491	539	564	580	571	532	510
Australia	1,092	1,099	1,139	1,177	1,215	1,257	1,283	1,291	1,290	1,281	1,277
Brazil	215	271	256	252	270	305	302	291	275	219	173
Canada	25	78	87	93	104	116	116	110	104	93	89
China - Mainland	101	95	95	95	95	95	95	95	95	95	95
Eastern Europe	5	-6	7	19	29	36	18	-5	-18	-37	-39
European Union	415	572	572	542	497	370	370	370	370	370	370
New Zealand	502	489	502	520	539	559	576	593	610	626	642
United States	-105	61	312	427	371	350	354	516	666	928	1,018
Total Net Exports	2,696	3,137	3,410	3,579	3,611	3,627	3,677	3,840	3,965	4,106	4,135
Net Importers											
Former Soviet Union	366	423	548	599	601	661	631	625	615	600	572
Japan	903	917	975	1,026	1,039	1,045	1,065	1,120	1,167	1,199	1,201
Mexico	73	107	190	264	283	253	280	329	367	441	490
South Korea	203	230	258	284	311	312	330	357	380	405	411
Rest of World/Residual	1,151	1,460	1,438	1,406	1,377	1,356	1,371	1,409	1,436	1,459	1,460
Total Net Imports	2,696	3,137	3,410	3,579	3,611	3,627	3,677	3,840	3,965	4,106	4,135
Nebraska Direct Fed Steer Price	(Dollars per Metric Ton)										
	1,436	1,448	1,548	1,657	1,751	1,815	1,731	1,607	1,546	1,475	1,508

World Pork

- High feed-grain prices of 1996 led to a 7 percent drop in **world** swine herd during the year, with sharp reductions seen in China, Mexico, Germany, Russia, Japan, Canada, and the United States. Consequently, pork production is projected to stagnate in 1997, while consumption demand temporarily picks up as a substitute for beef affected by BSE, leading to a strong world price in 1997. A 4 to 5 percent annual average growth in world net imports is projected, with the primary growth markets being Japan, Korea, and Mexico. Apart from a modest gain by Canada, almost all of the 800 tmt added import market over the period will be captured by the United States given both price and quality advantages.
- The **United States** is poised to become the world's largest net exporter of pork, with net exports rising to over 1mmt by 2003 as quality and competitive price favors U.S. products in the growing import markets of Japan and Korea. EU and Taiwan, the traditional competitors in these markets, are further constrained by environmental and/or WTO considerations. The emerging Mexican market that is strengthened by income growth is an added bonanza to U.S. exporters.
- **China** accounts for more than half of the world's swine inventory, and half of the world's pork production. Even so, the 3 percent annual growth in total consumption resulting from income and population growth will necessitate more than 1 mmt of additional pork per year on average. Assumed meat self-sufficiency policies prevent a reversal of the trade pattern of this traditional net exporter. Consequently, feed-grain imports increase.
- **Taiwan's** export expansion capacities are limited by both environmental concerns as well as competition from the United States in its main market, Japan. Note that these projections were completed in January, 1997 and do not incorporate the foot and mouth disease outbreak reported in Taiwan in March.
- Pork prices in the **EU** are projected to fall slightly in 1997 and 1998, as the BSE-induced increase in demand fades. Per capita consumption stays stable at a little over 40 kg. While hog inventories show marginal decline, increased yield enables a less than 0.5 percent annual average growth in pork production. Current export levels, which exceed WTO limits by more than 100 tmt, suggest the possibility of continued unsubsidized exports to high-income countries such as Japan. Projections are for exports to remain close to 550 to 600 tmt throughout the period.
- While the snapback provision in **Japan** continues to affect the trade flow, this is not projected to affect long-run demand growth. A 30 percent growth in imports over the period is projected, as the share of imports in consumption outgrows that of domestic production.
- Import demand for pork in the **FSU** continues to grow despite its being the most expensive meat, as low feed availability, high grain prices, and lack of state support affect the domestic swine industry. The industry is projected to recover with the economy in 2000, yet the growing consumption demand leads to continued imports of nearly 0.5 mmt annually.
- **Korean** pork imports slowed in 1996, as production increased due to inventory reductions undertaken in anticipation of liberalization. While new investments and modernization will enable Korea to expand high-quality pork exports to Japan at about 1 percent annually, import demand for U.S. pork will continue to grow because of competitive prices.
- Hog inventory in **Mexico** continues to decline, with an 11 percent drop in 1996, and an additional 8 percent drop expected for 1997, primarily attributed to high grain prices from exchange rate changes and elimination of the feed corn subsidy. Projected 4 percent steady income growth will increase consumption demand by nearly 50 tmt per year on average, while the annual increase in production amounts to only 25 tmt.

Pork Trade

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Net Exporters											
	(1,000 Metric Tons)										
Canada	290	294	310	308	335	369	329	289	332	370	370
China - Mainland	250	248	223	208	205	203	189	180	182	185	174
Eastern Europe	130	100	97	71	65	81	90	83	87	105	112
European Union	590	583	557	528	530	554	555	555	581	605	606
Taiwan	362	367	360	348	347	354	355	349	349	357	357
United States	129	269	420	602	659	669	844	1,025	964	886	983
Total Net Exports	1,751	1,860	1,967	2,066	2,142	2,230	2,361	2,481	2,496	2,507	2,602
Net Imports											
China - Hong Kong	165	176	189	198	200	201	209	217	218	220	229
Former Soviet Union	522	542	572	564	535	509	546	594	579	561	566
Japan	897	904	927	957	1,014	1,105	1,151	1,167	1,185	1,202	1,224
Mexico	25	92	120	153	189	209	236	252	251	262	289
Other Western Europe	10	12	14	16	18	20	22	24	26	28	30
South Korea	-4	27	50	69	74	78	93	113	119	124	154
Rest of World/Residual	136	107	95	109	113	107	104	112	118	111	110
Total Net Imports	1,751	1,860	1,967	2,066	2,142	2,230	2,361	2,481	2,496	2,507	2,602
Iowa-Southern Minnesota Barrow and Gilt Price											
	(Dollars per Metric Ton)										
	1,176	1,187	1,022	927	1,001	1,081	1,016	945	1,027	1,106	1,023

World Poultry

- **World** poultry production in 1997 increases 7.5 percent over the previous year despite continued production losses in FSU and East European countries caused by capital and feed shortage problems. The United States dominates world trade in broilers, with net exports in 1997 estimated at 2.2 mmt. Main export markets have been Japan, the Middle East, and some high-income Asian countries included in the Rest-of-World (ROW) category in the tables. Projected growth in imports in the next decade, however, will be led by China and to a lesser extent Mexico, while Japan and ROW also continue to maintain sustained growth.
- The **United States** ranks as the highest in per capita broiler meat consumption at 36.8 kg per year in 1996, having increased consumption at a little over 1 percent annually over the last five years. Yet, even more rapid production growth has caused exports to nearly quadruple in that period and now account for 18 percent of domestic production. Projections are for a 50 percent increase from the current 2 mmt net export level over the next 10 years, capturing most of the demand growth in China, Japan, Korea, FSU, and Mexico.
- Poultry production in **China** grew at an average annual rate of 35 percent during the last five years. A 90 percent increase in production over the next decade is projected, with exports growing by 74 percent as more high-quality cuts move into Japan and Korea. However, strong domestic demand for the low-priced parts prompts Chinese imports to climb by 94 percent, increasing net imports to nearly 670 tmt by 2006. This still accounts for no more than 3 percent of consumption.
- **Mexico's** broiler imports continue to be above Tariff Rate Quota (TRQ) limits set under NAFTA. With TRQ limits increasing at 3 percent until duty-free status after 2003, a continued increase in imports at nearly 25 tmt per year is anticipated because income-driven consumption is projected to increase at 7 percent annually, while production, constrained by high capital as well as feed cost, only increases at 5.5 percent.
- The **FSU** in general, and Russia in particular, has shown very rapid growth in import dependency for broilers, increasing from a mere 4 percent of domestic use in 1992 to more than 55 percent by 1997. The United States has substantially displaced the traditional European suppliers through competitive pricing, quality, and convenient packaging, especially of the dark meat cuts. The domestic industry faces numerous obstacles including high feed prices as well as deficiencies in production, processing, and marketing techniques. As such, projections are for continued import growth, but at a more moderate rate of around 2 percent or 15 to 20 tmt per year.
- Long-run prospects for growth in broiler exports by the **EU** will be restrained by increasing domestic demand due to the trend to shift away from red meats, rising feed and labor costs, as well as stringent environmental standards. Projections are for consumption to increase at 1.5 percent annually, and production growth to match this, with net imports nearly stable at a little over 0.5 mmt per year.
- Broiler net exports of **Brazil**, the third largest producer, continue to increase despite a fall in production attributed to high feed cost. This results from lower domestic demand caused by weaker beef prices, increased BSE-related substitution demand in traditional markets in EU and Japan, and new market opportunities in Russia and the Middle East. Long-run projections are for the current 0.5 mmt net exports to double, as feed prices moderate, and new investments are undertaken in the grain and meal producing regions in view of expanding opportunities.
- Import demand of the **Rest-of-World** category in the tables, which includes, High-Income Asian countries of Singapore, Indonesia, Philippines and Malaysia, is projected to grow at 1 to 2 percent annually.

Broiler Meat Trade

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Net Exporters	(1,000 Metric Tons)										
Brazil	530	560	569	601	660	717	755	789	832	885	932
Eastern Europe	5	18	22	27	34	40	42	44	48	53	56
European Union	575	558	546	531	516	521	520	520	522	527	530
Thailand	165	160	159	160	161	161	161	160	161	161	161
United States	2,052	2,211	2,351	2,460	2,492	2,542	2,665	2,792	2,891	2,948	3,058
Total Net Exports	3,327	3,508	3,648	3,779	3,863	3,981	4,143	4,306	4,454	4,575	4,737
Net Importers											
Canada	35	37	40	40	40	40	40	40	40	40	40
China											
Mainland	300	352	384	418	446	479	521	561	597	630	672
Hong Kong	213	222	229	236	242	249	256	264	270	277	284
Former Soviet Union	834	882	878	889	886	910	936	959	979	993	1014
Japan	533	550	584	616	633	648	669	693	717	738	764
Mexico	95	147	178	196	202	207	234	264	286	298	321
Saudi Arabia	290	297	303	308	312	316	322	327	332	336	341
South Korea	42	52	60	66	77	89	100	111	125	137	154
Rest of World/Residual	985	969	990	1,009	1,025	1,044	1,066	1,087	1,107	1,126	1,146
Total Net Imports	3,327	3,508	3,648	3,779	3,863	3,981	4,143	4,306	4,454	4,575	4,737
U.S. 12-City Price	(Dollars per Metric Ton)										
	1,351	1,268	1,254	1,260	1,283	1,298	1,285	1,275	1,279	1,296	1,297

World Dairy Products

- **World** dairy product prices weakened in 1996 from the record levels of the previous year caused mainly by low butter stocks and unanticipated continuation of import demand for butter in the FSU. Consequently, as the markets adjust from the shocks, the largest price decline in 1996 was for butter. Cheese price continues to strengthen, but more moderately, due to income-driven global demand. Long-term projections are for butter prices to remain depressed, while cheese and NFD prices increase at 1 to 2 percent annually, after a temporary decline in 1997-98 resulting from overreaction to the high prices of 1995-96.
- While FSU, the largest producer as well as importer of **butter**, is projected to only marginally increase its imports, the demand from ROW is projected to add 30 to 35 tmt to world imports annually, primarily because of the growing economies of Asia and the Middle East.
- **Cheese** demand across the world grows with increasing incomes and changing food habits that intensify the share of convenience and restaurant meals. This bodes well for cheese consumption. However, dairy expansion and production potential within the next decade seem limited to the Oceanic countries, as EU is constrained by WTO, and other major producers are more affected by high domestic support levels. Also, in the FSU and Eastern European countries, necessary structural adjustments will delay the recovery of production capacity. Such demand growth with limited production possibilities will lead to strengthening of cheese prices by about 2 percent per year.
- Trade of **NFD** is projected to increase at 25 tmt per year, amounting to 3 percent average annual growth over the next 10 years, primarily from food demand growth of low-income countries of Africa and Latin America. Australia, New Zealand, and to a lesser extent, Eastern Europe, will together meet this increasing demand, thus keeping the long-term price reasonably stable, increasing only marginally from \$1,850 in 1997 to a little over \$2,000 by 2006.
- Butter and NFD exports are well below WTO limits in the **EU**. Therefore, as export limits become binding for cheese, more of the industrial milk will be diverted to butter/NFD production. Thus, projections are for increased butter and NFD exports in the long run from EU. High levels of cheese stocks of over 1 mmt have been maintained in the EU because of the maturity requirement characteristic of this product. Consequently, only marginal depletion from the current level of 1.2 mmt is anticipated over the long run. Stock levels in butter and NFD are expected to increase at 3 to 4 percent annually from the current historically low levels.
- The **Canadian** dairy policy mix was changed substantially in 1996. A two-tier system of pricing was adopted to enable industry supported exports of any surpluses from the primarily self-sufficiency targeted production control. Consequently, increasing domestic demand for butterfat, mostly coming from cheese demand and stable NFD demand, will make Canada continue as a net exporter of nearly 30 tmt of NFD per year.
- **New Zealand** responds to the relative strengthening of dairy prices and the vacuum created by WTO-constrained decline in EU's cheese exports. An annual increase of less than 2 percent in milk production translates into a nearly doubling of the current 180 tmt of cheese exports by 2006, thus displacing EU as the largest single net exporter. New Zealand also expands both butter and NFD exports at an annual average of 3 percent and 6 percent.
- Similarly, the stronger prices and worldwide demand will stimulate **Australian** dairy production, especially that of cheese. Milk production is projected to increase at 3 percent, enabling an additional 20 tmt of cheese production per year, of which almost 65 percent will enter the export market. Along with this, an additional 10 tmt of NFD and 5 tmt of butter exports per year are projected.

Dairy Product Trade

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Butter											
Net Exporters	(1,000 Metric Tons)										
Australia	78	84	87	91	96	100	105	109	114	118	123
Canada	4	4	3	3	3	3	3	3	3	3	3
Eastern Europe	6	3	4	5	7	8	10	12	14	16	17
European Union	84	99	120	142	162	180	199	220	240	261	281
New Zealand	270	305	310	313	319	325	331	336	341	345	350
Other Western Europe	16	16	16	15	15	15	15	14	14	14	14
United States	22	11	17	20	20	20	19	19	19	19	19
Total Net Exports	480	522	558	589	621	651	681	714	745	776	807
Net Importers											
Former Soviet Union	269	272	270	269	269	270	270	274	278	282	286
Japan	2	1	7	5	4	3	3	3	3	3	3
Mexico	9	10	11	12	12	13	13	14	14	15	15
Rest of World/Residual	200	238	270	303	336	366	395	423	450	477	503
Total Net Imports	480	522	558	589	621	651	681	714	745	776	807
Cheese											
Net Exporters											
Australia	94	129	143	154	164	174	183	193	202	210	219
Eastern Europe	8	18	19	21	22	23	23	24	25	26	27
European Union	405	384	363	342	321	321	321	321	321	321	321
New Zealand	180	216	234	254	270	284	298	312	325	338	351
Other Western Europe	48	45	45	46	47	46	46	46	46	46	46
Total Net Exports	736	793	805	816	824	849	872	896	919	942	964
Net Importers											
Canada	11	11	11	11	11	12	12	12	13	13	13
Former Soviet Union	88	89	89	89	89	89	89	89	89	90	90
Japan	160	165	171	177	183	190	197	204	211	218	225
Mexico	20	13	15	16	18	20	23	25	27	29	31
United States	130	132	135	137	140	140	140	140	139	139	139
Rest of World/Residual	327	383	386	386	384	398	412	427	439	452	465
Total Net Imports	736	793	805	816	824	849	872	896	919	942	964

Dairy Product Trade (continued)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Nonfat Dry Milk											
Net Exporters	(1,000 Metric Tons)										
Australia	167	175	184	194	204	215	226	236	246	257	267
Canada	43	39	33	30	29	26	26	26	27	28	30
Eastern Europe	107	110	114	119	124	129	133	138	143	148	153
European Union	147	117	126	133	137	135	133	139	137	133	128
Former Soviet Union	0	0	1	1	1	1	1	1	1	1	1
New Zealand	150	204	208	210	214	219	224	226	230	234	238
Other Western Europe	27	26	25	24	23	23	22	21	21	20	20
United States	36	51	64	68	58	58	58	58	58	58	58
Total Net Exports	677	723	755	778	790	806	823	845	862	879	895
Net Importers											
Japan	87	97	100	96	92	90	89	89	89	89	89
Mexico	170	159	162	165	165	166	167	169	170	170	170
Rest of World/Residual	-470	-538	-559	-564	-554	-558	-562	-565	-569	-572	-576
Total Net Imports	677	723	755	778	790	806	823	845	862	879	895
FOB Price, Northern Europe	(U.S. Dollars per Metric Ton)										
Butter	1,692	1,661	1,630	1,583	1,577	1,570	1,570	1,585	1,605	1,630	1,656
Cheese	2,371	2,126	2,191	2,281	2,397	2,412	2,439	2,462	2,499	2,549	2,600
Nonfat Dry Milk	2,016	1,853	1,834	1,816	1,860	1,885	1,915	1,913	1,939	1,982	2,027

U.S. Crops

Wheat

Corn

Sorghum

Barley

Oats

Hay

Peanuts

Soybeans and Soybean Products

Rice

Upland Cotton and Cottonseed

Sugar and High-Fructose Corn Syrup

U.S. Wheat

- Wheat **planted area** surged to 75.6 million acres in 1996/97 due to record high prices and favorable weather during planting season. The ending of annual land idling programs also added to the increase. For the 1997/98 marketing year, planted area is expected to decrease to 70.2 million acres. Winter wheat seeding has been reported lower and the wet weather in the Northern Plains is expected to limit spring wheat seeding. By 2005/06 wheat area is projected to grow to 74.6 million acres, as farm prices strengthen.
- Wheat **yields** improved in 1996/97 to 36.3 bushels per acre. For 1997/98, yields are projected to increase to 38.5 bushels per acre and then increase to 40.2 bushels per acre by 2005/06.
- Wheat **feed and residual use** is projected to increase to 299 million bushels in 1996/97. High prices for corn and soybean meal keep wheat competitive in feed rations. Early season use of wheat was also high due to short supply of feed grains. Feed use rises in the last half of the baseline as feed grain prices strengthen relative to wheat prices.
- U.S. wheat **exports** are projected to rebound in 1997/98, surpassing 1 billion bushels. This represents an 80-million-bushel increase from the depressed levels of 1996/97. Increased wheat production in other regions of the world contributed to the lower U.S. exports in 1996/97. The ability of the EU to export without subsidy limits the growth in U.S. wheat exports over the longer term.
- **Ending stocks** of wheat for 1996/97 drop to 469 million bushels. Stocks continue to be tight, remaining between 500 and 600 million bushels.
- Weakened **export** demand in 1996/97 causes a decrease in the season average wheat **price** from the 1995/96 level. The season average farm price for 1996/97 is projected to be \$4.30. Prices are projected to weaken again in 1997/98 due to larger supplies in the United States. Prices strengthen by 2001/02 as the export market improves. Increased exports by the EU limit U.S. price strength for the longer term.
- Market **net returns** over variable production costs stay relatively flat throughout the projection period as increases in market prices and yield are offset by cost increases. In 1996/97, market net returns stood at \$190 per acre; during the baseline, wheat returns do not reach that level again. Returns per acre for wheat reach \$170 by 2005/06.

U.S. Wheat Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Percent)										
ARP Rate	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFA Rate	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Participation Rate	84.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Area	(Million Acres)										
Base Area	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Area	N/A	76.7	77.2	78.2	78.1	77.8	77.4	77.2	77.2	77.2	77.2
ARP, PLD, 0-92/85	6.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP Idled	10.7	10.6	10.1	9.1	9.2	9.5	9.9	10.0	10.1	10.1	10.1
Net Flexed Area	-2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payment Planted	47.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	69.1	75.6	70.2	73.6	73.1	75.4	74.6	75.3	75.1	74.9	74.6
Harvested Area	60.9	62.9	62.1	65.2	64.9	66.9	66.3	66.9	66.8	66.7	66.4
Yield	(Bushels per Acre)										
Actual	35.8	36.3	38.5	38.5	38.7	39.0	39.3	39.5	39.8	40.0	40.2
Program	34.4	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7	34.7
Supply	(Million Bushels)										
Beginning Stocks	2,758	2,733	2,953	3,135	3,183	3,237	3,232	3,244	3,259	3,273	3,282
Production	507	376	469	537	581	538	550	528	531	535	538
Imports	2,183	2,282	2,393	2,508	2,512	2,609	2,602	2,646	2,658	2,668	2,674
	68	75	90	90	90	90	80	70	70	70	70
Domestic Use	1,140	1,314	1,386	1,427	1,412	1,451	1,458	1,469	1,473	1,488	1,492
Feed, Residual	152	299	343	364	336	358	352	348	336	336	325
Seed	104	104	104	104	107	106	108	108	108	108	108
Food, Other	884	910	939	960	969	986	998	1,013	1,029	1,044	1,059
Exports	1,241	950	1,029	1,127	1,233	1,237	1,246	1,244	1,251	1,247	1,255
Total Use	2,381	2,264	2,416	2,554	2,645	2,688	2,704	2,713	2,723	2,735	2,747
Ending Stocks	376	469	537	581	538	550	528	531	535	538	535
FOR, Special Program	0	0	0	0	0	0	0	0	0	0	0
CCC Inventory	118	95	87	87	87	87	87	87	87	87	87
9-Month Loan	13	15	37	43	31	33	30	31	32	33	32
"Free" Stocks	245	359	413	451	419	429	412	413	416	419	415
Prices and Returns	(Dollars)										
Farm Price/bu.	4.55	4.30	3.38	3.30	3.63	3.63	3.78	3.78	3.78	3.78	3.82
Loan Rate/bu.	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.58
Target Price/bu.	4.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Payment/bu	N/A	0.87	0.62	0.66	0.64	0.59	0.48	0.46	0.46	0.46	0.46
FOB Gulf Price/mt	209.00	190.31	151.96	148.51	162.67	162.65	169.01	169.20	168.86	168.98	170.85
Variable Expenses/a.	76.28	78.00	76.31	75.15	76.30	77.77	79.40	81.03	82.58	84.05	85.69
Partic. Returns/a.	87.86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Market Returns/a.	87.86	79.19	55.45	53.34	65.76	65.30	70.38	69.94	69.05	68.59	69.56

U.S. Corn

- Corn farmers increased **planted area** to 79.5 million acres in 1996/97 due to high planting time prices and the removal of land idling programs. Preseason corn acreage was expected to be much higher. Soil in the eastern Corn Belt remained wet and cold during the spring, delaying crop planting and development there. Many acres slated to be planted to corn switched to soybeans because of the weather. For the short term, corn area is expected to grow slightly to 80.7 million acres in the 1997/98 marketing year.
- Less than ideal growing conditions in parts of the Midwest limited the national average corn **yield** to 127.1 bushels per acre in 1996/97, which is roughly the trend-line yield. Assuming normal weather, corn yields should rise to 127.6 bushels per acre in 1997/98 and then grow to 139.6 bushels by 2005/06. This growth rate assumes technological progress that can generate a 1.2 percent higher corn yield each year, or equivalently, 1.49 bushels per acre.
- Higher **feed use** is projected for the 1996/97 marketing year at 5.1 billion bushels, up almost 0.5 billion bushels from the year before. Feed use should increase in 1997/98 to 5.2 billion bushels as corn prices fall. Steady growth in several livestock categories and stable crop prices cause feed use to rise during the baseline period, reaching 5.8 billion bushels in 2005/06.
- Corn used for **fuel alcohol** production is projected to require 664 million bushels by 2005/06. This baseline assumes a much slower growth rate than has been observed in recent years. Despite mandates from the Clinton administration and the focus on ethanol production to meet oxygenated fuel requirements of the reformulated gasoline program, recent setbacks in federal court may hinder ethanol's future. Growth in other domestic uses of corn, such as high-fructose corn syrup, is relatively modest. Total food, seed, and industrial use of corn totals 2.0 billion bushels in 2005/06.
- Corn **exports** in 1996/97 are projected to decrease to 1.9 billion bushels in response to higher world feed-grain production. Projected exports rise marginally in 1997/98 and rise markedly throughout the baseline, reaching over 3.0 billion bushels by the end of the period. Strong growth in Chinese imports fuels the U.S. export market.
- Corn **ending stocks** in 1996/97 are projected to recover to 965 million bushels, an increase from the 1995/96 level of 426 million bushels. With a return to normal weather, ending stocks rebuild over a three-year period, reaching 1.4 billion bushels by 1999/00. Stocks then fall due to higher farm prices, falling to 1.2 billion bushels by the last year of the baseline. The Farmer Owned Reserve (FOR) program is terminated.
- With strong demand and low stocks in 1995/96, season average corn **prices** rose to \$3.24 per bushel. As stocks rebuild in the current marketing year, the season average farm price is projected to fall to \$2.75. Prices fall again in 1997/98 to \$2.37 per bushel with increased production and ending stocks. Given the strong export path, prices rise thereafter, reaching \$2.82 per bushel by 2005/06. Market transition payments average just over \$0.31 per bushel during the baseline.
- Lower prices more than offset higher yields as market returns in 1996/97 fell to \$168 per acre. Further weakening in prices contribute to lower returns in 1997/98. Market returns increase after 1997/98 as prices and yields rise faster than variable costs.

U.S. Corn Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Percent)										
ARP Rate	7.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFA Rate	15.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Participation Rate	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Area	(Million Acres)										
Base Area	81.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Area	N/A	80.7	81.0	81.3	81.2	81.0	80.8	80.8	80.8	80.8	80.8
ARP, PLD, 0-92/85	7.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP Idled	4.1	4.0	3.7	3.4	3.6	3.8	4.0	4.0	4.0	4.0	4.0
Net Flexed Area	-3.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payment Planted	43.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	71.2	79.5	80.7	80.0	80.9	81.4	81.2	82.1	82.6	82.9	83.7
Harvested Area	65.0	73.1	74.4	73.8	74.7	75.2	75.1	76.1	76.6	77.1	77.9
Yield	(Bushels per Acre)										
Actual	113.5	127.1	127.6	129.4	130.8	132.3	133.9	135.3	136.8	138.2	139.6
Program	106.2	102.9	102.9	102.9	102.9	102.9	102.9	102.9	102.9	102.9	102.9
Supply	(Million Bushels)										
Beginning Stocks	8,948	9,729	10,462	10,909	11,209	11,396	11,505	11,674	11,836	11,989	12,163
Production	1,558	426	965	1,355	1,426	1,429	1,429	1,366	1,344	1,325	1,281
Imports	7,374	9,293	9,487	9,544	9,773	9,958	10,066	10,298	10,482	10,653	10,871
	16	10	10	10	10	10	10	10	10	10	10
Domestic Use	6,294	6,864	7,024	7,104	7,250	7,373	7,430	7,525	7,628	7,710	7,858
Feed, Residual	4,711	5,192	5,255	5,291	5,400	5,480	5,503	5,558	5,622	5,669	5,778
Fuel Alcohol	396	450	504	528	549	570	589	608	628	646	664
HFCS	482	516	546	556	569	584	595	608	622	632	645
Seed	21	20	20	20	21	21	21	21	21	21	21
Food, Other	685	685	700	708	712	718	722	729	736	742	750
Exports	2,228	1,900	2,083	2,379	2,530	2,594	2,709	2,805	2,883	2,998	3,037
Total Use	8,522	8,764	9,107	9,483	9,781	9,967	10,139	10,330	10,511	10,708	10,895
Ending Stocks	426	965	1,355	1,426	1,429	1,429	1,366	1,344	1,325	1,281	1,268
FOR, Special Program	0	0	0	0	0	0	0	0	0	0	0
CCC Inventory	30	30	30	30	30	30	30	30	30	30	30
9-Month Loan	33	178	260	262	249	244	221	212	203	187	180
"Free" Stocks	363	758	1,065	1,135	1,150	1,156	1,115	1,103	1,092	1,064	1,057
Prices and Returns	(Dollars)										
Farm Price/bu.	3.24	2.75	2.37	2.36	2.42	2.44	2.55	2.61	2.66	2.76	2.82
Loan Rate/bu.	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89	1.89
Target Price/bu.	2.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Payment/bu	N/A	0.25	0.48	0.38	0.36	0.33	0.27	0.26	0.26	0.26	0.26
FOB Gulf Price/mt	169.28	122.61	107.37	106.68	109.30	110.47	114.91	117.51	119.77	124.12	126.64
Variable Expenses/a.	174.86	180.77	177.80	176.68	179.16	182.67	186.82	190.96	194.69	198.25	202.18
Partic. Returns/a.	177.42	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Market Returns/a.	192.73	168.12	124.86	128.16	137.09	140.80	154.48	162.07	169.34	183.66	191.67

U.S. Sorghum

- Sorghum **planted area** increased sharply in 1996/97, rising to 13.2 million acres. Drought in the Southern Plains fueled this increase as abandoned wheat and cotton acres were re-seeded with sorghum. For the 1997/98 crop year, sorghum area is expected to fall back to 11.0 million acres. Stronger prices are projected to increase planting up to 11.4 million acres by 2005/06.
- Despite a less than ideal start, average sorghum **yields** increased to 65.7 bushels per acre in 1996/97. Sorghum yield is projected to reach 70.5 bushels per acre by 2005/06, an annual growth rate of 0.75 percent per year. This assumes normal temperatures and rainfall as well as some technological progress.
- Sorghum **feed use** is projected to be 521 million bushels in 1996/97 due to larger production and the high price of other feed grains. In the 1997/98 marketing year, feed use declines to 404 million bushels. Feed use expands through the end of the decade, but declines thereafter.
- **Exports** of U. S. sorghum in 1996/97 are projected to be up to 225 million bushels and to continue to grow during the baseline period. The volume of exports grows in each year of the baseline, reaching 306 million bushels by 2005/06. Worldwide demand for feed grains pulls the sorghum export figure higher.
- Sorghum **ending stocks** rebuild in 1996/97 to 68 million bushels, up from the extremely low 18 million bushels of the previous marketing year. The FAIR Act eliminated the Farmer Owned Reserve (FOR) program and the market is the only holder of stocks in the baseline. With the assumption of normal weather, ending stocks are generally expected to remain low at approximately 12 percent of use.
- With higher production in 1996/97, season average sorghum **farm prices** plummeted to \$2.33 per bushel. Prices are projected to decrease in 1997/98, generally reflecting the effects of lower corn prices. Sorghum prices will maintain a fairly constant relationship to corn prices, rising to \$2.67 per bushel by 2005/06.
- Market **net returns** over variable costs fell to \$56.01 per acre in 1996/97 due to lower prices. Longer term sorghum remains competitive with wheat as yield and price gains outpace production costs.

U.S. Sorghum Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Percent)										
ARP Rate	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFA Rate	15.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Participation Rate	76.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Area	(Million Acres)										
Base Area	13.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Area	N/A	13.1	13.2	13.5	13.4	13.3	13.2	13.2	13.1	13.1	13.1
ARP, PLD, 0-92/85	1.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP Idled	2.4	2.4	2.3	2.0	2.0	2.2	2.3	2.3	2.3	2.3	2.3
Net Flexed Area	-0.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payment Planted	4.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	9.5	13.2	11.0	11.2	11.2	11.0	11.1	11.1	11.2	11.3	11.4
Harvested Area	8.3	11.9	9.6	9.8	9.8	9.7	9.7	9.8	9.8	9.9	10.0
Yield	(Bushels per Acre)										
Actual	55.6	67.5	66.4	66.9	67.5	68.1	68.6	69.1	69.6	70.0	70.5
Program	59.2	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
Supply	(Million Bushels)										
Beginning Stocks	532	821	707	726	737	737	743	752	764	775	789
Production	72	18	68	70	75	76	76	77	80	83	86
Imports	460	803	640	656	662	660	667	675	684	691	703
	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	314	528	411	425	427	416	412	406	401	396	394
Feed, Residual	307	521	404	418	420	409	405	399	394	389	387
Food, Industry	6	6	6	6	6	6	6	6	6	6	6
Seed	1	1	1	1	1	1	1	1	1	1	1
Exports	200	225	227	226	233	244	253	266	280	293	306
Total Use	514	753	638	651	660	660	666	672	680	689	699
Ending Stocks	18	68	70	75	76	76	77	80	83	86	90
FOR, Special Program	0	0	0	0	0	0	0	0	0	0	0
CCC Inventory	0	0	0	0	0	0	0	0	0	0	0
9-Month Loan	0	5	4	5	4	4	3	3	3	3	3
"Free" Stocks	18	62	66	70	72	73	74	77	80	83	87
Prices and Returns	(Dollars)										
Farm Price/bu.	3.19	2.33	2.28	2.25	2.32	2.38	2.47	2.52	2.55	2.62	2.67
Loan Rate/bu.	1.80	1.81	1.74	1.76	1.77	1.78	1.77	1.82	1.82	1.82	1.82
Target Price/bu.	2.61	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Payment/bu	N/A	0.32	0.53	0.45	0.44	0.40	0.33	0.32	0.32	0.32	0.32
FOB Gulf Price/mt	158.51	118.54	108.10	106.70	109.69	112.27	116.35	118.50	119.80	123.17	125.42
Variable Expenses/a.	98.50	101.03	99.16	98.47	99.48	101.05	103.01	104.91	106.59	108.11	109.80
Partic. Returns/a.	78.91	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Market Returns/a.	78.91	56.01	52.42	52.35	57.16	60.84	66.39	69.03	70.56	75.48	78.43

U.S. Barley

- Strong prices increased barley **planted area** in 1996/97 to 7.2 million acres, 0.5 million acres more than in 1995/96. Barley acreage competition from wheat limits any expansion.
- Barley **CRP** falls from a high of 2.8 million acres to 2.4 million acres in 1998/99. By the end of the projection period, barley CRP area increases to 2.5 million acres. Given relative market returns and increased flexibility, barley planted area is not currently expected to gain from CRP land returning to production.
- U.S. barley **yield** in 1996/97 was 58.5 bushels per acre. Barley yields go up slowly during the baseline period, reaching 63.9 bushels per acre by 2005/06. This assumes an annual growth rate of 0.87 percent, or just over 0.5 bushels per acre per year.
- Barley **imports** are projected to fall in 1996/97 to 40 million bushels. Import levels are not expected to increase above that during the baseline.
- Barley total domestic use is projected to show modest growth over the projection period. **Feed use**, currently at 233 million bushels, will increase as prices weaken relative to corn. By 2005/06, barley feed use reaches 247 million bushels. Barley **food use** will grow only modestly, from 166 million bushels in 1996/97, to 174 million bushels in 2005/06.
- U. S. barley **exports** fell sharply in 1996/97 to 37 million bushels, the lowest amount since 1985/86. Export sales rebuild in 1997/98 due to lower prices and barley exports grow slowly during the remainder of the baseline.
- Barley **ending stocks** in 1996/97 stood at 100 million bushels. Stocks are projected to remain at that level and not rebuild significantly during the baseline period.
- The 1996/97 U.S. season average barley **farm price** is projected at \$2.71 per bushel, down from \$2.89 in 1995/96. Barley prices drop to \$2.36 in the following crop year, bottom at \$2.25 in 1998/99, and then rise during the remainder of the baseline. Barley prices weaken somewhat relative to corn longer term.
- Market **net returns** over variable costs shrunk to \$73.05 per acre in 1996/97 due to lower prices. Yield increases more than offset cost of production increases through the remainder of the baseline, resulting in higher market net returns.

U.S. Barley Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Percent)										
ARP Rate	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFA Rate	15.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Participation Rate	82.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Area	(Million Acres)										
Base Area	10.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Area	N/A	10.5	10.7	10.9	10.9	10.9	10.8	10.8	10.7	10.7	10.7
ARP, PLD, 0-92/85	2.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP Idled	2.8	2.7	2.6	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5
Net Flexed Area	-0.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payment Planted	4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	6.7	7.2	7.4	7.6	7.4	7.2	7.3	7.3	7.2	7.2	7.3
Harvested Area	6.3	6.8	6.9	7.1	7.0	6.8	6.9	6.8	6.8	6.8	6.9
Yield	(Bushels per Acre)										
Actual	57.3	58.5	59.6	60.0	60.5	61.1	61.6	62.2	62.8	63.3	63.9
Program	47.0	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3
Supply	(Million Bushels)										
Beginning Stocks	514	537	552	573	569	562	569	571	574	579	588
Production	113	100	100	104	107	108	105	107	109	108	107
Imports	360	397	412	428	422	414	423	425	425	431	441
Exports	41	40	40	40	40	40	40	40	40	40	40
Domestic Use	351	400	404	412	408	401	406	409	410	414	421
Feed, Residual	185	233	236	243	238	232	236	238	238	242	247
Food, Industry	155	155	156	157	158	158	159	159	160	161	162
Seed	11	11	12	12	11	12	11	11	11	12	12
Exports	62	37	43	54	54	55	56	54	56	58	59
Total Use	413	437	448	466	462	457	462	463	465	472	480
Ending Stocks	100	100	104	107	108	105	107	109	108	107	107
FOR, Special Program	0	0	0	0	0	0	0	0	0	0	0
CCC Inventory	5	0	0	0	0	0	0	0	0	0	0
9-Month Loan	3	5	10	11	11	10	11	10	10	10	9
"Free" Stocks	92	95	95	96	96	95	96	98	98	97	98
Prices and Returns	(Dollars)										
Farm Price/bu.	2.89	2.71	2.36	2.25	2.31	2.39	2.44	2.43	2.45	2.50	2.54
Loan Rate/bu.	1.54	1.55	1.58	1.59	1.64	1.66	1.69	1.67	1.65	1.64	1.63
Target Price/bu.	2.36	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Payment/bu	N/A	0.33	0.27	0.29	0.28	0.25	0.21	0.20	0.20	0.20	0.20
FOB Pacific Northwest/mt	158.67	143.77	133.21	128.18	130.94	134.68	137.19	136.48	137.42	140.11	141.84
Variable Expenses/a.	87.46	89.45	87.34	86.05	87.14	88.85	90.70	92.61	94.41	96.03	97.91
Partic. Returns/a.	82.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Market Returns/a.	82.30	73.05	57.28	53.12	56.57	60.94	63.61	62.22	62.94	66.16	67.91

U.S. Oats

- Oats **area planted** continued to fall in 1996/97, down to 4.7 million acres. **Harvested area** in 1996/97 was also down, at 2.7 million acres. Planted area is projected to increase modestly in 1997/98 because of higher prices. A wet spring in the Northern Plains could alter this picture, however. In the longer term, oats continue to lose area to other feed grains and oilseeds. In the last year of the baseline, oats planted area falls to 3.8 million acres, and harvested area decline to 1.9 million acres.
- Oat **yields** rose to 57.8 bushels per acre in 1996/97, up from the 1995/96 yield of 54.7 bushels per acre. Yield shows little growth in the baseline. Trend yield generates an annual increase of 0.3 bushels per acre, an annual growth rate of 0.5 percent.
- **Net imports** of oats are projected to rise to 81 million bushels in 1996/97. Other net imports grow to 96 million bushels by 2005/06, contributing 38 percent of total supplies.
- Oat **feed use** is projected to be 112 million bushels in 1996/97 and then increase in the middle years of the baseline as oat prices decline. At the end of the baseline, oat feed use declines to 88 million bushels. This feed use path coupled with slowly growing food use, produces declining domestic use.
- **Food use** of oats continues the trend of the past four years and does not increase significantly during the baseline. Total oat food use increases from 105 million bushels in 1996/97 to 110 million bushels by 2005/06.
- Oat **prices** were stronger in 1996/97 due to lower production, reaching \$1.93 per bushel. Prices fall to \$1.36 in 1998/99 and then increase in the last years of the baseline along with the prices of other feed grains.
- Market **net returns** over variable costs in 1996/97 are projected at \$73.45. Weaker prices cause returns to fall to \$50 per acre in 1997/98. Rising prices in the latter years of the baseline are more than offset by rising costs and flat yields. By 2005/06, per acre net returns for oats fall to \$39.97.

U.S. Oat Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Percent)										
ARP Rate	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFA Rate	15.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Participation Rate	43.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Area	(Million Acres)										
Base Area	6.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Area	N/A	6.2	6.3	6.4	6.4	6.3	6.3	6.3	6.2	6.2	6.2
ARP, PLD, 0-92/85	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP Idled	1.4	1.3	1.3	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3
Net Flexed Area	-0.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payment Planted	0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	6.3	4.7	4.9	4.7	4.4	4.3	4.2	4.1	4.0	3.9	3.8
Harvested Area	3.0	2.7	2.9	2.6	2.4	2.3	2.2	2.1	2.0	2.0	1.9
Yield	(Bushels per Acre)										
Actual	54.7	57.8	58.1	58.4	58.8	59.1	59.4	59.6	59.9	60.1	60.4
Program	47.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
Supply	(Million Bushels)										
Beginning Stocks	343	305	324	320	301	283	274	266	262	258	253
Production	101	66	71	77	67	56	50	47	45	44	44
Imports	162	155	166	153	142	134	130	125	122	118	113
	81	84	87	91	92	93	94	94	95	96	97
Domestic Use	275	231	247	252	244	232	226	220	217	214	210
Feed, Residual	152	112	126	131	124	111	105	99	95	92	88
Food, Industry	107	105	106	107	108	108	108	109	109	110	110
Seed	16	15	14	13	13	13	13	12	12	12	12
Exports	2	3	1	1	1	1	1	1	1	1	1
Total Use	277	234	248	253	245	233	227	221	218	215	211
Ending Stocks	66	71	77	67	56	50	47	45	44	44	42
FOR, Special Program	0	0	0	0	0	0	0	0	0	0	0
CCC Inventory	0	0	0	0	0	0	0	0	0	0	0
9-Month Loan	0	0	0	0	0	0	0	0	0	0	0
"Free" Stocks	66	71	77	67	56	50	47	45	44	44	42
Prices and Returns	(Dollars)										
Farm Price/bu.	1.68	1.93	1.52	1.36	1.38	1.39	1.41	1.43	1.43	1.43	1.45
Loan Rate/bu.	0.97	1.03	1.11	1.11	1.12	1.13	1.16	1.10	1.07	1.05	1.03
Target Price/bu.	1.45	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Payment/bu	N/A	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
Variable Expenses/a.	54.28	55.44	54.79	54.15	54.56	55.43	56.50	57.65	58.69	59.73	60.92
Partic. Returns/a.	54.30	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Market Returns/a.	54.30	73.45	50.26	41.76	42.38	42.27	42.64	42.51	41.56	40.11	39.97

U.S. Hay

- Hay **area harvested** rose to 61.0 million acres in 1996/97, with the Southern Plains contributing much of the increase. The beef cycle and beef prices play an important role in determining hay area harvested. With lower cattle numbers and increased area competition due to higher grain prices, hay area generally declines throughout the baseline period, bottoming at 59.5 million acres by 2005/06.
- Hay **yields** dropped in 1996/97 to 2.45 tons per acre. Assuming normal weather, yields are projected to increase at a rate of less than 1 percent per year.
- With stronger prices and reduced supplies, hay **disappearance** decreased in 1996/97 to 151.4 million tons. Use increases to 153.5 million tons in 1997/98 and then shows modest growth every year of the baseline.
- Hay **ending stocks** in 1996/97 tightened to 19.0 million tons. While ending stocks rebuild over the baseline, the growth is modest.
- The U.S. average **all-hay price** rose to \$92.43 per ton in 1996/97. Production increases offset increased demand, causing hay prices to average \$82.50 per ton during the baseline. The **alfalfa hay price** averages more than \$7.75 higher than all-hay prices.

U.S. Hay Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
Area	59.6	61.0	60.9	60.6	60.3	60.2	60.0	59.7	59.5	59.5	59.5
	(Tons per Acre)										
Yield	2.60	2.45	2.56	2.58	2.60	2.62	2.64	2.66	2.68	2.70	2.72
	(Million Tons)										
Supply	175.6	170.4	174.8	177.7	179.4	180.7	181.8	182.8	183.9	185.0	186.3
Production	154.8	149.5	155.8	156.4	156.9	157.7	158.3	158.9	159.5	160.4	161.7
Beginning Stocks	20.8	20.9	19.0	21.3	22.5	23.0	23.5	24.0	24.4	24.6	24.7
Disappearance	154.6	151.4	153.5	155.2	156.4	157.2	157.8	158.5	159.3	160.3	161.7
Ending Stocks	20.9	19.0	21.3	22.5	23.0	23.5	24.0	24.4	24.6	24.7	24.6
	(Dollars)										
Prices											
All-Hay (crop year)	82.10	92.43	86.39	83.56	83.17	82.73	80.60	79.15	79.71	81.83	86.08
Alfalfa (calendar year)	92.81	96.99	96.76	92.28	90.86	90.38	88.66	86.76	86.58	88.34	92.27

U.S. Peanuts

- With the implementation of the FAIR Act, the U.S. **quota poundage** fell from 2.7 to 2.2 billion pounds in the 1996/97 crop year. Given the small increases in domestic food use during the baseline period, the quota grows slowly. By 2005/06, the quota is projected to be 2.3 billion pounds, an annual average growth rate of about 9 million pounds per year.
- U.S. peanut farmers decreased **planted area** to 1.413 million acres in 1996/97 due to a reduction in the quota poundage. Planted area increases during the baseline, reaching 1.469 million acres in the 2005/06 marketing year.
- Improved **yields** more than made up for the decreased planted area in 1996. The U.S. average peanut yield per acre came in at 2,619 pounds to help produce a crop of 3.6 billion pounds. Assuming some technological improvement, yields reach 2,590 pounds per acre by the last year of the baseline.
- **Food use** of peanuts expanded in 1996/97 to 2.015 billion pounds. Given this increase, the quota poundage will go up next year. Longer term, food use is expected to fall on a per capita basis, but rise in total due to increasing population. By 2005/06, food use is projected to have risen to 2.083 billion pounds, an annual growth rate of less than 0.5 percent per year.
- Peanut **crush** fell to 746 million pounds in the 1996/97 marketing year. Crush rises to 814 million pounds by the last year of the baseline.
- Peanut **exports** fell to 703 million pounds in the 1996/97 marketing year. World demand for protein meals and vegetable oils is projected to grow during the baseline. This growth will allow peanut exports to grow to 743 million pounds by 2005/06. For the 1997/98 marketing year, exports expand to 723 million pounds due to lower U.S. prices.
- **Ending stocks** are projected to be 793 million pounds by the end of the 1996/97 marketing year. The increase in peanut production was not offset by enough increased demand. Longer term, stocks of peanuts grow due to lower prices and expanded production.
- The season average **farm price** of peanuts fell to \$0.28 per pound. For the coming marketing year, prices fall again to \$0.27 per pound. These represent somewhat lower prices than what was observed in the early 1990s. The quota loan rate is \$0.305 per pound during the baseline.
- Higher yields pushed **net returns** over variable cost above \$350 dollars per acre in 1996/97. Returns are projected to be lower in 1997/98 due to lower prices and projected yields. Peanut net returns fall below \$300 per acre by the end of the baseline. Rising costs outweigh yield increases to put downward pressure on net returns.

U.S. Peanut Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Million Pounds)										
Quota Poundage	2,700	2,200	2,266	2,275	2,284	2,293	2,302	2,311	2,320	2,329	2,338
Area	(Thousand Acres)										
Planted Area	1,538	1,413	1,459	1,436	1,446	1,441	1,444	1,449	1,455	1,462	1,469
Harvested Area	1,517	1,392	1,440	1,417	1,427	1,422	1,424	1,429	1,435	1,442	1,449
Yield	(Pounds per Acre)										
	2,282	2,619	2,543	2,553	2,557	2,564	2,569	2,575	2,580	2,585	2,590
Supply	(Million Pounds)										
Beginning Stocks	1,198	758	793	830	835	858	869	878	890	901	913
Production	3,461	3,645	3,661	3,617	3,648	3,645	3,659	3,680	3,703	3,727	3,752
Imports	153	125	136	152	165	165	165	165	165	165	165
Domestic Use	3,230	3,032	3,037	3,047	3,064	3,073	3,085	3,101	3,120	3,141	3,162
Food	1,993	2,015	2,019	2,027	2,028	2,030	2,036	2,044	2,056	2,069	2,083
Crush	999	746	752	754	771	778	784	792	799	807	814
Seed, Feed, and Residual	238	271	265	265	265	265	265	265	265	265	265
Exports	824	703	723	716	727	727	729	733	736	739	743
Total Use	4,054	3,735	3,760	3,763	3,791	3,800	3,814	3,834	3,856	3,880	3,905
Ending Stocks	758	793	830	835	858	869	878	890	901	913	925
Prices and Returns	(Dollars)										
Season Avg. Price/lb	0.293	0.283	0.271	0.274	0.272	0.273	0.275	0.277	0.279	0.281	0.283
Quota Loan Rate/lb	0.339	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305	0.305
Variable Expenses/a	388.18	390.46	389.04	391.89	397.28	404.49	414.00	422.67	429.83	436.99	444.39
Average Net Returns/a	280.38	350.37	301.08	307.71	297.26	295.76	293.19	290.21	289.08	288.68	287.88

U.S. Soybeans and Soybean Products

- Soybean **planted area** rose in 1996/97 to 64.2 million acres and is projected to rise to 65.0 million acres in 1997/98 due to higher prices. Despite strong prices and land returning to production from the CRP, soybeans battle feed grains for acreage during the baseline period and planted area will reach only 63.3 million acres by 2005/06.
- Soybean **yields** increased to 37.6 bushels per acre in 1996/97, generating production of 2.38 billion bushels, also an increase. Assuming average rainfall and temperatures during the baseline period, soybean yields grow to 42.8 bushels per acre by 2005/06.
- High product prices caused soybean **crush** to rise to 1.4 billion bushels in 1996/97 and the strong demand is projected to continue. Steady domestic use and export demand for soybean products cause crush to increase steadily in every year of the projection period, reaching 1.6 billion bushels by the last year of the baseline.
- Soybean **oil domestic use** increased in 1996/97, exceeding 13.6 billion pounds. With slow growth assumed for many competing fats and oils, domestic use continues to increase through 2005/06, topping 15.4 billion pounds.
- Domestic soybean **meal use** rose in 1996/97 to 26.8 million tons. Increases in livestock numbers during the projection period keep soybean meal uses rising all during the 1997/98 to 2005/06 period.
- U.S. soybean exports grew to 895 million bushels in 1996/97 as imports by developing countries increased. Soybean exports show only modest growth over the projection period as policy changes encourage more soybean exports out of Brazil and Argentina. Exports of soybean meal and oil exhibit stronger growth as world demand for these products remains strong.
- The season average **farm price** of soybeans rose in 1996/97 to \$6.85 per bushel due to strong demand and higher feed grain prices. Prices fall marginally in 1997/98 to \$6.23 per bushel due to more production, and range from \$5.80 to \$6.52 over the baseline period.
- Soybean **net returns** over variable costs remain strong throughout the projection period as price and yield increases more than offset rising costs of production. Soybeans remain competitive with cotton in the Southeast and Delta, but have difficulty competing with corn in the Midwest.

U.S. Soybean Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Area	(Million Acres)										
CRP Idled	4.1	3.9	3.7	3.3	3.4	3.6	3.7	3.8	3.8	3.8	3.8
Net Flexed Area	4.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	62.6	64.2	65.0	65.3	63.7	63.2	63.4	63.0	63.2	63.3	63.3
Harvested Area	61.6	63.4	64.0	64.2	62.7	62.2	62.4	62.1	62.2	62.3	62.3
Yield	(Bushels per Acre)										
	35.3	37.6	38.1	38.7	39.4	40.1	40.6	41.2	41.7	42.2	42.8
Supply	(Million Bushels)										
Beginning Stocks	335	183	162	196	249	263	261	263	262	263	266
Production	2,177	2,382	2,438	2,484	2,473	2,492	2,533	2,556	2,593	2,632	2,663
Imports	4	4	5	5	5	5	5	5	5	5	5
Domestic Use	1,481	1,514	1,525	1,554	1,582	1,611	1,637	1,657	1,682	1,709	1,731
Crush	1,370	1,398	1,410	1,439	1,466	1,494	1,520	1,539	1,563	1,589	1,610
Seed	111	116	115	115	116	117	118	119	119	120	121
Exports	851	895	884	882	883	888	898	905	914	926	942
Total Use	2,332	2,408	2,409	2,436	2,465	2,499	2,535	2,562	2,597	2,634	2,673
Ending Stocks	183	162	196	249	263	261	263	262	263	266	260
CCC Inventory	0	0	0	0	0	0	0	0	0	0	0
9-Month Loan	8	40	28	42	43	38	30	26	24	24	22
"Free" Stocks	176	122	168	207	220	222	233	236	239	242	239
Prices and Returns	(Dollars)										
Farm Price/bu.	6.77	6.85	6.23	5.83	5.80	5.92	5.98	6.08	6.18	6.30	6.52
Loan Rate/bu.	4.92	4.97	5.26	5.26	5.26	5.26	5.09	5.02	5.02	5.09	5.17
FOB Gulf Price/mt	267.23	270.28	246.76	231.63	230.50	235.15	237.32	241.04	244.83	249.61	257.59
Bean/Corn Ratio	2.09	2.49	2.63	2.47	2.40	2.42	2.35	2.33	2.32	2.28	2.31
Variable Expenses/a.	90.95	92.68	92.56	92.50	93.85	95.64	97.93	100.10	102.09	104.10	106.32
Market Returns/a.	148.19	164.71	144.90	132.92	134.86	141.63	144.81	150.22	155.61	162.13	172.29
44% Meal Price/ton	223.00	218.03	196.80	188.13	190.43	194.87	196.70	195.55	196.39	198.04	201.08
Oil Price/cwt	24.75	23.16	22.34	21.08	20.55	20.93	21.25	22.24	23.10	24.09	25.29
Crushing Margin/bu.	1.27	0.85	0.97	1.02	1.05	1.08	1.10	1.09	1.10	1.13	1.13

U.S. Soybean Meal Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(1,000 Tons)										
Supply	32,811	33,446	33,935	34,664	35,307	35,969	36,583	37,034	37,620	38,238	38,738
Beginning Stocks	223	229	201	230	231	224	220	220	222	222	221
Production	32,513	33,137	33,655	34,354	34,996	35,665	36,284	36,734	37,318	37,936	38,437
Imports	75	80	80	80	80	80	80	80	80	80	80
Domestic Use	26,581	26,781	27,284	28,164	28,810	29,290	29,654	30,112	30,715	31,381	31,790
Exports	6,002	6,464	6,422	6,270	6,274	6,459	6,710	6,700	6,684	6,636	6,727
Total Use	32,582	33,245	33,705	34,433	35,084	35,749	36,363	36,812	37,398	38,017	38,518
Ending Stocks	229	201	230	231	224	220	220	222	222	221	220
	(Dollars)										
Prices, 44% Protein											
Decatur/ton	223.00	218.03	196.80	188.13	190.43	194.87	196.70	195.55	196.39	198.04	201.08
Decatur/mt	245.82	240.34	216.93	207.38	209.92	214.81	216.82	215.56	216.48	218.30	221.65

U.S. Soybean Oil Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Pounds)										
Supply	16,468	17,390	17,851	18,279	18,668	19,036	19,360	19,612	19,903	20,219	20,487
Beginning Stocks	1,137	2,015	2,012	2,104	2,184	2,231	2,257	2,289	2,298	2,315	2,339
Production	15,236	15,270	15,790	16,125	16,434	16,756	17,054	17,273	17,555	17,854	18,098
Imports	95	105	50	50	50	50	50	50	50	50	50
Domestic Use	13,460	13,661	13,958	14,235	14,537	14,714	14,914	15,024	15,167	15,306	15,422
Exports	992	1,717	1,790	1,860	1,900	2,066	2,157	2,290	2,421	2,574	2,718
Total Use	14,452	15,378	15,748	16,095	16,437	16,780	17,071	17,314	17,588	17,880	18,140
Ending Stocks	2,015	2,012	2,104	2,184	2,231	2,257	2,289	2,298	2,315	2,339	2,347
	(Dollars)										
Prices											
Decatur/cwt	24.75	23.16	22.34	21.08	20.55	20.93	21.25	22.24	23.10	24.09	25.29
Decatur/mt	545.64	510.50	492.41	464.66	453.04	461.47	468.40	490.32	509.17	531.10	557.45

U.S. Rice

- In response to the flexibility of the FAIR Act, U.S. rice **planted area** contracted to 2.82 million acres in 1996/97, down from 3.12 million acres in 1995/96. Planted area rises in 1997/98 to 2.94 million acres due to higher market prices. Rice area falls during the baseline to 2.63 million acres by 2005/06.
- U.S. rice **yields** set a new record in 1996/97 at 6,121 pounds per acre. Yields are projected to show modest growth throughout the projection period, reaching 6,458 pounds per acre in 2005/06. The decrease in planted area aids this growth. Rice grown in California has a higher yield than rice grown in other areas of the country. The national average yield is supported by California area remaining flat and other areas decreasing.
- Both **food use** and **brewing use** are projected to increase throughout the projection period. The majority of the increase comes in the food category, with brewing flat on a per capita basis.
- U.S. rice **exports** are projected to fall to 72.2 million cwt in 1996/97. Further declines occur in both exports and trade share as the U.S. produces less rice and U.S. prices rise.
- **Ending stocks** of rice for 1996/97 are projected to increase to 27.0 million cwt. Stock levels decline as U.S. production falls.
- The U.S. average **farm price** is projected to increase to \$9.41 per cwt for marketing year 1996/97 due to lower supplies and strong world prices. Prices weaken to \$8.71 per cwt by 1997/98 as production increases. Longer term, rice prices rise, reaching \$9.59 by the end of the projection period. As planted area falls, U.S. rice prices gain a premium relative to world prices.
- Market **net returns** over variable production costs increase during the baseline as prices increase. Despite the rising returns, rice area declines as other crops generate comparable returns with much lower production costs. By the last year of the baseline, rice net returns reach \$178 per acre, which is far less than rice program participants received under previous farm programs.

U.S. Rice Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Percent)										
ARP Rate	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFA Rate	15.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Participation Rate	94.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Area	(Million Acres)										
Base Area	4.18	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Area	N/A	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16
ARP, PLD, 50-92/85	0.54	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP Idled	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Net Flexed Area	-0.28	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payment Planted	2.82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	3.12	2.82	2.94	2.83	2.82	2.73	2.72	2.68	2.65	2.62	2.63
Harvested Area	3.09	2.80	2.91	2.81	2.79	2.71	2.70	2.66	2.63	2.60	2.61
Yield	(Pounds per Acre)										
Actual	5,621	6,121	6,101	6,166	6,204	6,263	6,299	6,344	6,386	6,427	6,458
Program	4,860	4,827	4,827	4,827	4,827	4,827	4,827	4,827	4,827	4,827	4,827
Supply	(Million Hundredweight)										
Beginning Stocks	212.6	204.2	213.0	209.3	210.1	208.1	208.6	208.2	208.0	207.7	209.0
Production	31.3	25.0	27.0	27.3	27.3	28.2	27.4	27.5	27.3	27.3	26.5
Imports	173.9	171.3	177.8	173.0	173.2	169.5	170.1	168.9	168.1	167.1	168.5
Exports	7.4	7.8	8.2	8.9	9.7	10.4	11.1	11.8	12.6	13.2	13.9
Domestic Use	104.5	105.0	107.3	109.4	111.5	113.5	115.5	117.5	119.5	121.4	123.3
Food	77.0	78.6	80.9	82.9	84.9	86.8	88.8	90.7	92.7	94.5	96.4
Seed	3.8	3.7	3.7	3.6	3.5	3.5	3.5	3.4	3.4	3.4	3.4
Brewing	15.2	15.2	15.3	15.4	15.6	15.6	15.7	15.8	15.9	16.0	16.1
Residual	8.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Exports	83.0	72.2	78.4	72.6	70.4	67.3	65.6	63.4	61.2	59.8	59.4
Total Use	187.5	177.2	185.7	182.0	181.9	180.7	181.1	180.8	180.7	181.2	182.7
Ending Stocks	25.0	27.0	27.3	27.3	28.2	27.4	27.5	27.3	27.3	26.5	26.2
CCC Inventory	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
"Free" Stocks	25.0	27.0	27.3	27.3	28.2	27.4	27.5	27.3	27.3	26.5	26.2
Prices and Returns	(Dollars)										
Farm Price/cwt	9.15	9.41	8.71	8.64	8.50	8.73	8.81	8.92	8.99	9.33	9.59
Loan Rate/cwt	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
Target Price/cwt	10.71	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Payment/bu	N/A	0.09	0.07	0.08	0.08	0.07	0.06	0.06	0.06	0.06	0.06
FOB Houston/mt	431.25	440.59	408.36	405.58	399.71	409.99	413.81	418.86	422.23	437.35	449.27
Adjusted World Price/cwt	8.47	8.62	7.43	7.32	7.14	7.32	7.35	7.42	7.44	7.72	7.93
Variable Expenses/a.	369.44	385.80	384.40	383.64	387.49	394.72	404.02	412.66	421.85	430.52	440.58
Partic. Returns/a.	136.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpartic. Returns/a.	136.77	220.27	160.57	147.72	149.77	162.60	169.11	172.01	172.47	175.02	180.08

U.S. Upland Cotton and Cottonseed

- Cotton **planted area** fell by over 2 million acres in 1996/97 to 14.41 million acres due to strong competition from other crops. As growers become accustomed to the FAIR Act provisions, planted area is expected to decline, reaching 13.0 million acres by the last year of the baseline. The decoupled payment plan of the FAIR Act, as well as competition from corn in the Southeast and soybeans in the Delta, causes the fall. For the 1997/98 marketing year, planted area is expected to fall to 13.56 million acres planted.
- National average cotton yields rose to 703 pounds per acre in 1996/97. Yields per harvested acre were inflated due to the high rate of abandonment in the Southern Plains. Longer term, cotton yields grow, but at a rate of less than 1 percent per year. In terms of pounds per acre, the average annual increase is just under 7 pounds per acre per year.
- **Mill use** in 1996/97 is projected to recover to 10.99 million bales. As consumer demand remains strong and prices moderate, mill use should continue to increase throughout the projection period. In 2005/06, projected mill use is 12.81 million bales, implying slight per capita increases.
- U.S. **exports** of cotton in 1996/97 should decrease to 6.17 million bales, in part due to increased production by major competitors around the world. Exports are projected to strengthen in 1997/98 to 6.51 million bales and then fall slowly to 6.06 million bales by 2005/06.
- Increased production and decreased exports couple to allow **ending stocks** to build to 4.29 million bales. Ending stocks are projected to grow again in 1997/98 to 4.64 million bales. Rising prices and domestic use near the end of the baseline cause stocks to retreat to 3.98 million bales by 2005/06. The stocks-to-use ratio averages 23 percent during the projection period. During the 1985-95 period, the government managed acreage with a stocks-to-use goal in mind. Stocks-to-use averaged almost 34 percent during that period.
- Due to increased production relative to 1995/96, prices are projected to fall more than \$0.05 per pound in 1996/97. The current projection for the season average farm price is \$0.71 per pound. For the 1997/98 crop, the price falls again to \$0.67 per pound. In 1998/99 and beyond, prices climb from \$0.65 to almost \$0.70 per pound.
- As prices rise and cost and yield increases offset each other, cotton **net returns** over variable production costs rise throughout the projection period. In 1996/97, market net returns averaged over \$220 per acre. After dropping back to \$147 by 1998/99, returns increase over \$4 per year. Cotton returns are expected to be competitive with corn and soybean in the Southeast and Delta states.

U.S. Upland Cotton Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Program	(Percent)										
ARP Rate	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
NFA Rate	15.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Participation Rate	79.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Area	(Million Acres)										
Base Area	15.48	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Area	N/A	16.20	16.28	16.49	16.46	16.39	16.32	16.30	16.31	16.31	16.31
ARP, PLD, 50-92/85	0.21	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP Idled	1.41	1.36	1.29	1.08	1.11	1.18	1.25	1.26	1.26	1.26	1.26
Net Flexed Area	0.10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Payment Planted	9.85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Planted Area	16.72	14.41	13.56	13.52	13.28	13.03	13.12	13.08	13.08	13.04	13.00
Harvested Area	15.80	12.58	12.81	12.77	12.54	12.30	12.38	12.35	12.34	12.31	12.27
Yield	(Pounds per Acre)										
Actual	533	703	675	682	690	699	705	712	718	724	730
Program	600	610	610	610	610	610	610	610	610	610	610
Supply	20.52	21.40	22.37	22.88	22.79	22.54	22.61	22.67	22.74	22.79	22.80
Beginning Stocks	2.59	2.54	4.29	4.64	4.68	4.56	4.33	4.26	4.19	4.14	4.07
Production	17.53	18.42	18.00	18.16	18.02	17.90	18.20	18.32	18.47	18.57	18.65
Imports	0.40	0.44	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Domestic Use	(Million Acres)										
Mill Use	10.50	10.99	11.26	11.50	11.69	11.85	12.03	12.22	12.42	12.62	12.81
Exports	7.38	6.17	6.51	6.74	6.58	6.41	6.38	6.30	6.23	6.15	6.06
Total Use	17.88	17.16	17.78	18.24	18.27	18.26	18.40	18.52	18.65	18.77	18.87
Unaccounted	-0.10	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Ending Stocks	2.54	4.29	4.64	4.68	4.56	4.33	4.26	4.19	4.14	4.07	3.98
CCC Inventory	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
"Free" Stocks	2.54	4.29	4.64	4.68	4.56	4.33	4.26	4.19	4.14	4.07	3.98
Prices	(Dollars)										
Farm Price/lb	0.769	0.713	0.665	0.646	0.650	0.667	0.680	0.686	0.688	0.692	0.699
Calendar Ave. Price/lb	0.768	0.730	0.680	0.649	0.645	0.657	0.671	0.680	0.683	0.687	0.693
Loan Rate/lb	0.519	0.519	0.519	0.519	0.519	0.519	0.519	0.519	0.519	0.519	0.519
Target Price/lb	0.729	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Contract Payment/bu	N/A	0.089	0.074	0.079	0.076	0.070	0.057	0.055	0.055	0.055	0.055
Cotlook A Index/mt	1,886	1,751	1,707	1,653	1,665	1,712	1,751	1,766	1,773	1,785	1,804
Adjusted World Price/lb.	0.711	0.644	0.622	0.600	0.605	0.624	0.639	0.645	0.648	0.653	0.660
Variable Expenses/a.	318.89	347.32	343.30	344.39	349.67	356.44	364.84	373.29	381.05	388.51	396.02
Partic. Returns/a.	136.77	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpartic. Returns/a.	136.77	220.27	160.57	147.72	149.77	162.60	169.11	172.01	172.47	175.02	180.08

U.S. Upland Cottonseed Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Area	(Million Acres)										
Harvested Area	15.80	12.58	12.81	12.77	12.54	12.30	12.38	12.35	12.34	12.31	12.27
Yield	(Pounds per Acre)										
	867	1,156	1,096	1,107	1,119	1,133	1,144	1,156	1,166	1,175	1,184
Supply	(1,000 Tons)										
Beginning Stocks	551	495	575	500	500	500	500	500	500	500	500
Production	6,849	7,271	7,081	7,137	7,079	7,031	7,148	7,197	7,255	7,294	7,326
Imports	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	6,790	7,051	7,006	6,987	6,929	6,881	6,998	7,047	7,105	7,144	7,176
Crush	3,861	3,896	3,805	3,794	3,773	3,768	3,827	3,855	3,890	3,919	3,950
Other	2,929	3,155	3,201	3,193	3,157	3,113	3,170	3,193	3,215	3,225	3,226
Exports	114	140	150	150	150	150	150	150	150	150	150
Total Use	6,904	7,191	7,156	7,137	7,079	7,031	7,148	7,197	7,255	7,294	7,326
Ending Stocks	495	575	500	500	500	500	500	500	500	500	500
Prices and Returns	(Dollars)										
Farm Price/ton	106.00	114.48	100.80	92.98	91.35	94.00	94.39	98.28	101.65	105.93	111.32
Meal Price/ton	190.74	181.62	167.10	158.74	161.26	165.68	166.36	164.92	165.20	166.38	168.87
Oil Price/cwt	26.53	25.15	24.35	22.89	22.40	22.82	23.05	24.02	24.84	25.82	27.01
Crushing Margin/ton	62.81	47.87	52.49	51.86	53.04	53.73	54.40	52.96	52.35	51.74	51.27

U.S. Upland Cottonseed Meal Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(1,000 Tons)										
Supply	1,770	1,804	1,764	1,756	1,745	1,741	1,767	1,780	1,796	1,809	1,823
Beginning Stocks	47	51	50	46	45	43	42	43	43	43	43
Production	1,723	1,753	1,715	1,710	1,700	1,698	1,725	1,737	1,753	1,766	1,780
Imports	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	1,616	1,665	1,618	1,611	1,602	1,599	1,624	1,637	1,653	1,666	1,680
Exports	111	90	100	100	100	100	100	100	100	100	100
Total Use	1,727	1,755	1,718	1,711	1,702	1,699	1,724	1,737	1,753	1,766	1,780
Ending Stocks	51	50	46	45	43	42	43	43	43	43	43
	(Dollars)										
Prices											
Memphis/ton	190.74	181.62	167.10	158.74	161.26	165.68	166.36	164.92	165.20	166.38	168.87
Memphis/mt	210.25	200.20	184.19	174.98	177.76	182.63	183.38	181.79	182.10	183.40	186.15

U.S. Upland Cottonseed Oil Supply and Utilization

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Pounds)										
Supply	1,300	1,343	1,333	1,314	1,310	1,306	1,324	1,334	1,345	1,355	1,365
Beginning Stocks	82	94	114	99	101	99	99	100	99	99	99
Production	1,218	1,249	1,218	1,215	1,208	1,207	1,226	1,234	1,246	1,255	1,265
Imports	0	0	0	0	0	0	0	0	0	0	0
Domestic Use	985	1,014	1,034	1,012	1,010	1,007	1,025	1,035	1,045	1,055	1,065
Exports	221	215	200	200	200	200	200	200	200	200	200
Total Use	1,206	1,229	1,234	1,212	1,210	1,207	1,225	1,235	1,245	1,255	1,265
Ending Stocks	94	114	99	101	99	99	100	99	99	99	100
	(Dollars)										
Prices											
Valley Points/cwt	26.53	25.15	24.35	22.89	22.40	22.82	23.05	24.02	24.84	25.82	27.01
Valley Points/mt	584.886	554.568	536.897	504.644	493.747	503.014	508.156	529.532	547.674	569.237	595.372

U.S. Sugar and High-Fructose Corn Syrup

- Sugar beet **area harvested** fell in 1996/97 from the previous year's level. Over 1.32 million acres were harvested for sugar beets in the 1996/97 marketing year. The decrease is blamed on high prices for other commodities such as wheat, corn, and oilseeds. Sugar beet area is expected to recover to 1.37 million acres for the next marketing year, and then increase in every year of the baseline. Over 1.44 million acres of sugar beets are projected to be harvested by 2005/06.
- Sugarcane **area harvested** continued its fall in 1996/97, down to 840 thousand acres with most of the decrease being in Louisiana and Hawaii. Harvested area rises slowly throughout the projection period with growth occurring in mainland acres.
- Sugar beet **yields** in 1996/97 climbed to 20.08 tons per acre, reflecting favorable growing conditions. Assuming normal weather, yields should climb in 1997/98 and grow modestly thereafter, reaching 20.61 tons per acre by 2005/06.
- Average **yields** for sugarcane decreased in 1996/97 to 30.85 tons per acre. Yields are projected to grow only slightly throughout the projection period as the high-yielding acreage in Hawaii becomes a smaller percentage of total cane area. In the last year of the baseline, sugarcane yield per harvested acre is 32.07 tons.
- Total **imports** of raw sugar rose to 2.7 million tons in fiscal year 1996. Given projected increases in domestic use, imports grow to 3.3 million tons by fiscal year 2005. Nonquota imports are assumed to be 550 thousand short tons per year.
- Sugar **consumption** is projected to increase throughout the projection period. However, per capita consumption grows slower in the baseline than in recent history.
- **Ending stocks** of sugar rose above 1.4 million tons for fiscal year 1996. With increases in production, ending stocks should increase throughout most of the projection period, reaching 1.6 million tons by fiscal year 2005.
- Growth in high-fructose corn syrup (HFCS) **production** is projected to continue through 2005, although future growth is expected to be more moderate than growth in the 1980s. HFCS must find a place in nonbeverage products if it is expected to repeat the growth of the 1980s.
- **Consumption** of HFCS will continue to increase due both to marginal increases in per capita consumption and population growth.

U.S. High-Fructose Corn Syrup Supply and Utilization

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(1,000 Short Tons, Raw Value, Calendar Year)										
Supply	8,373	8,945	9,351	9,562	9,807	10,052	10,262	10,504	10,729	10,939	11,177
Production	8,278	8,845	9,251	9,462	9,707	9,952	10,162	10,404	10,629	10,839	11,077
Imports	95	100	100	100	100	100	100	100	100	100	100
Utilization	8,373	8,945	9,351	9,562	9,807	10,052	10,262	10,504	10,729	10,939	11,177
Consumption	8,157	8,745	9,151	9,362	9,607	9,852	10,062	10,304	10,529	10,739	10,977
Exports	216	200	200	200	200	200	200	200	200	200	200
Net Change in Stocks	0	0	0	0	0	0	0	0	0	0	0
	(Cents per Pound, Calendar Year)										
Price											
Midwest Wholesale	18.50	18.41	18.01	18.10	18.26	18.41	18.64	18.81	19.01	19.25	19.42

U.S. Livestock and Dairy

Beef

Pork

Poultry and Eggs

Dairy

State-Level Dairy Supply

Dairy Products

U.S. Beef

- **Beef production** in 1997 rises a little over 100 million pounds from the 25.5 billion pounds of 1996 as the beef cycle reaches the end of expansion and production peaks. As liquidation of the beef herd continues, there are corresponding declines in the beef cattle cycle and production through 2001. The cow herd begins to expand by 2002 in response to lower feed costs and beef production reaches almost 27 billion pounds in 2006.
- **Cattle and calves** on farms decline to 101.2 million head by January 1, 1997, reflecting reductions in response to falling returns in 1996. Inventory numbers bottom in 2001 at 97 million head and climb back to a little over 100 million head by 2005. The cycle underlying this is far less pronounced and slightly shorter than those of the past.
- In 1997, the **Nebraska Direct 1,100-1,300 pound fed-steer price** increases slightly to \$65.63 per cwt. The price continues to increase \$3.00 to \$5.00 per cwt per year through 2001 in response to declining inventory and slaughter. The fed-steer price peaks at \$82.31 per cwt in 2001 and then begins to decline, reaching \$66.90 per cwt in 2005 in response to increases in production. By 2006, the price begins to increase again as we reach another turn in the cycle.
- The **Oklahoma City 600-700 pound feeder-steer price** increases to \$67.86 per cwt in 1997. As feed costs begin to ease, the 1997 margin between the feeder-steer and fed-steer price returns to positive levels. This trend continues until 2005 when the beef industry is again squeezed by high feed costs and larger cattle inventories.
- Lower **cow-calf returns** over the last few years have curbed expansion in the beef cow herd by cow-calf producers. The beef cow herd is expected to decline to 34.3 million head in 1997 and continue this decline to 32.5 million head in 2001. By 2005 the beef cow herd reaches 34.7 million head as the cycle responds to higher net returns.
- Although lessened by generally lower net imports, **beef consumption** parallels the production cycle with a peak of 25.8 billion pounds in 1996. On a per capita basis, beef consumption reaches its highest level, 67.6 pounds, in 1996 and falls for the next five years.
- **Retail beef prices** generally move with fed-steer prices, but the percentage changes are usually smaller. From 1997 to 2006, beef retail prices rise much less than the projected general inflation rate. Further weakening of beef demand is evident as both real beef prices and per capita beef consumption decline over the projection period relative to 1995 and 1996 levels.

U.S. Beef Supply and Utilization

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Million Head)										
Cattle and Calves (Jan. 1)	103.5	101.2	99.7	98.1	97.1	97.0	98.0	99.3	100.1	100.5	100.1
Beef Cows (Jan. 1)	35.2	34.3	32.7	32.3	32.2	32.5	33.3	33.9	34.3	34.7	34.7
Total Cattle Slaughter	38.8	38.6	37.3	36.4	35.7	35.2	35.6	36.6	37.3	38.3	38.2
	(Million Pounds)										
Supply	28,150	28,135	27,849	27,626	27,306	27,227	27,491	28,172	28,762	29,623	29,705
Beginning Stocks	519	450	443	467	451	439	431	413	425	447	463
Imports	2,089	2,050	2,079	2,104	2,128	2,255	2,255	2,255	2,255	2,255	2,255
Production	25,542	25,635	25,327	25,055	24,726	24,533	24,805	25,504	26,082	26,921	26,987
Disappearance	27,700	27,691	27,382	27,175	26,867	26,795	27,078	27,748	28,315	29,159	29,228
Domestic Use	25,843	25,506	24,615	24,130	23,922	23,769	24,042	24,356	24,591	24,857	24,728
Exports	1,857	2,185	2,767	3,045	2,945	3,027	3,036	3,392	3,724	4,302	4,500
Ending Stocks	450	443	467	451	439	431	413	425	447	463	477
	(Pounds)										
Per Capita Consumption											
Carcass Weight	97.3	95.2	91.0	88.4	86.9	85.6	85.9	86.3	86.4	86.7	85.6
Retail Weight	67.6	66.1	63.3	61.4	60.4	59.5	59.7	60.0	60.1	60.2	59.5
Change	0.1%	-2.2%	-4.3%	-2.9%	-1.7%	-1.5%	0.3%	0.5%	0.1%	0.3%	-1.3%
Prices	(Dollars per Hundredweight)										
1100-1300 lb											
Nebraska Direct Steers	65.14	65.69	70.20	75.18	79.41	82.31	78.50	72.90	70.12	66.90	68.41
Change	-1.6%	0.8%	6.9%	7.1%	5.6%	3.7%	-4.6%	-7.1%	-3.8%	-4.6%	2.2%
600-700 lb											
Oklahoma City Feeder Steers	61.37	67.87	75.30	83.49	90.22	92.92	85.70	76.31	71.08	66.04	67.90
Change	-12.9%	10.6%	10.9%	10.9%	8.1%	3.0%	-7.8%	-11.0%	-6.9%	-7.1%	2.8%
Utility Cows, Sioux Falls	30.29	31.95	38.02	43.26	45.96	47.30	44.20	38.32	35.19	33.83	34.41
Change	-14.7%	5.5%	19.0%	13.8%	6.2%	2.9%	-6.6%	-13.3%	-8.2%	-3.9%	1.7%
	(Dollars per Pound)										
Beef Retail	2.80	2.83	3.03	3.19	3.31	3.42	3.37	3.31	3.30	3.28	3.35
Change	-1.4%	1.1%	7.1%	5.0%	3.8%	3.3%	-1.2%	-2.0%	-0.2%	-0.6%	2.0%
Net Returns	(Dollars per Cow)										
Cow - Calf	-111.15	-85.04	-46.23	-9.18	18.91	27.95	-9.11	-57.76	-87.34	-116.21	-112.92

U.S. Pork

- **Pork production** fell in 1996 to 17.1 billion pounds as high feed costs resulted in reduced breeding numbers. By 1997 production increases 300 million pounds to 17.5 billion pounds. Continued strength in production occurs throughout the baseline, with production reaching a peak of 20.9 billion pounds in 2003.
- The pork **breeding herd** declined 31 thousand head from December 1995 to the December 1996 level of 6.63 million head. By December 1997, the herd is expected to increase to 6.87 million head as hog producers respond to favorable returns and lower grain prices. Continued increases in technological efficiency allow further strength in pork production despite a smaller breeding herd. Improvements in farrowings per sow, pigs per litter, and heavier carcass weights will all support production as the breeding herd fluctuates between 6.8 and 7 million head.
- The **Iowa-Southern Minnesota 230-250 pound barrow and gilt price** is expected to remain above \$53 again in 1997 at \$53.81. Throughout the remainder of the projection period, the barrow and gilt prices are counter-cyclical to production, ranging from \$42.04 to \$50.17 per cwt.
- **Farrow-to-finish returns** follow barrow and gilt prices with some deviations caused by feed costs. Changes in feed supplies attributable to unfavorable weather conditions could cause these returns to change substantially, resulting in a dramatically different production cycle.
- Domestic **pork consumption** remains relatively constant throughout the baseline period, ranging from 48.8 pounds to 51.3 pounds.
- **Foreign trade** will contribute to total demand as net pork imports decline by more than 1.9 billion pounds from 1996 to 2006. Throughout the baseline period, the United States continues the 1996 trend of remaining a net exporter of pork.
- **Retail pork prices** mirror barrow and gilt prices, though the changes are proportionately smaller. Retail prices rise only slightly in 1997 to \$2.23 per pound and tend to increase over the baseline to reach \$2.56 per pound by 2006.

U.S. Pork Supply and Utilization

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Hogs on Farms											
	(Million Head)										
Market (Dec. 1)	49.2	49.6	50.0	49.5	49.8	51.2	51.7	52.1	53.7	55.2	55.8
Breeding (Dec. 1)	6.63	6.87	6.99	6.99	6.91	6.88	7.00	6.99	6.82	6.83	6.82
Total Hog Slaughter	93.6	94.2	98.6	102.4	102.9	102.6	105.7	108.6	107.6	106.4	109.7
Supply											
	(Million Pounds)										
Beginning Stocks	396	410	448	483	485	448	439	470	478	441	444
Imports	620	605	575	550	525	525	525	525	525	525	525
Production	17,135	17,477	18,503	19,420	19,524	19,570	20,271	20,925	20,663	20,562	21,218
Disappearance											
Domestic Use	16,837	16,847	17,543	18,090	18,107	18,105	18,380	18,658	18,573	18,606	19,019
Exports	904	1,197	1,501	1,876	1,979	1,999	2,385	2,784	2,651	2,478	2,692
Ending Stocks											
	410	448	483	485	448	439	470	478	441	444	477
Per Capita Consumption											
	(Pounds)										
Carcass Weight	63.4	62.9	64.9	66.3	65.8	65.2	65.7	66.1	65.3	64.9	65.8
Retail Weight	49.2	48.8	50.3	51.4	51.0	50.6	51.0	51.3	50.7	50.4	51.1
Change	-6.3%	-0.9%	3.2%	2.2%	-0.8%	-0.8%	0.7%	0.7%	-1.3%	-0.6%	1.4%
Prices											
	(Dollars per Hundredweight)										
230-250 lb, Barrows and Gilts	53.36	53.81	46.36	42.04	45.42	49.03	46.08	42.85	46.60	50.17	46.39
Change	26.1%	0.8%	-13.8%	-9.3%	8.0%	8.0%	-6.0%	-7.0%	8.8%	7.7%	-7.5%
6 Market Sows	44.27	44.63	37.45	35.02	36.72	39.58	37.48	36.30	38.84	41.15	39.18
Change	36.0%	0.8%	-16.1%	-6.5%	4.9%	7.8%	-5.3%	-3.1%	7.0%	6.0%	-4.8%
	(Dollars per Pound)										
Pork Retail	2.21	2.23	2.20	2.19	2.30	2.41	2.40	2.38	2.49	2.56	2.56
Change	13.4%	0.9%	-1.3%	-0.6%	5.1%	4.9%	-0.3%	-0.9%	4.6%	3.0%	-0.2%
Net Returns											
	(Dollars per Hundredweight)										
Farrow - Finish	10.03	13.70	8.70	4.67	7.11	9.66	6.09	2.61	5.36	7.85	3.79

U.S. Poultry and Eggs

- **Broiler and turkey production** increase by 5 and 2 percent, respectively, in 1997. Both continue to increase throughout the projection period, yet the growth rates are somewhat below those of the 1980s. The advantages of poultry over beef and pork in cost efficiency and product development are expected to slow. Broiler production increases more than 11 billion pounds from 1996 to 2006 while turkey production climbs 1.3 billion pounds over the same period.
- A 2.2 billion pound increase in broiler exports over the projection period somewhat limits domestic consumption. After a 3.4 percent jump in **per capita broiler consumption** in 1997, the rate of increase varies between 1.8 and 2.8 percent. **Per capita turkey consumption** is up only 0.8 percent in 1997 and subsequently grows at a pace slightly below that of broiler consumption. Continuing strong demand supports poultry meat consumption even as **broiler retail prices** remain around the \$1.50 per pound range and **turkey retail prices** are in the \$1.00 per pound range throughout the projection period.
- **Broiler net returns** decline in 1997 to \$.056 per pound as prices slip and feed costs remain strong. Net returns remain between \$.04 and \$.068 per pound throughout the remainder of the baseline. **Turkey net returns** also become less favorable in 1997 as prices weaken and fluctuate from \$.011 to \$.05 per pound across the projection.
- Due to the jump in poultry production in 1997, wholesale prices weaken. The **12-city wholesale broiler** price falls to \$.58 per pound and afterwards rises to reach \$.59 per pound in 2006. The **turkey wholesale price** also falls in 1997, to \$.66 per pound, and then climbs at a more moderate pace than the broiler wholesale price, reaching \$.69 per pound.
- **Egg production** increases in 1997 to 6.5 billion dozen and climbs to 7.2 billion dozen by 2006 due to a larger number of hens and further technological enhancements. Correspondingly, **egg disappearance** mirrors production, with the portion consumed as shell eggs still falling in percentage terms to breaking egg consumption, despite recent trends that have stabilized shell egg per capita consumption.
- **Egg wholesale and retail prices** drop in 1997 to \$.72 and \$.95 per dozen respectively, after significant increases in 1996. Egg prices fluctuate between \$.73 and \$.77 per dozen at the wholesale level and \$.95 and \$1.04 per dozen in the retail market.
- **Net returns** in the egg industry drop in 1997 to \$.012 per dozen as prices slip further and feed prices remain an issue and then begin to recover, reaching \$.085 per dozen in 2000.

U.S. Broiler Supply and Utilization

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Million Pounds)										
Supply	26,709	28,144	29,269	30,388	31,487	32,672	33,783	34,883	35,979	37,024	38,301
Beginning Stocks	560	600	642	637	639	640	649	655	658	659	658
Production	26,149	27,544	28,627	29,751	30,848	32,032	33,134	34,228	35,322	36,365	37,643
Disappearance	26,109	27,502	28,632	29,749	30,847	32,022	33,128	34,225	35,320	36,366	37,631
Domestic Use	21,586	22,628	23,449	24,326	25,353	26,418	27,253	28,071	28,947	29,866	30,889
Exports	4,523	4,875	5,183	5,423	5,494	5,605	5,875	6,155	6,373	6,499	6,742
Ending Stocks	600	642	637	639	640	649	655	658	659	658	670
	(Pounds)										
Per Capita Consumption											
Retail Weight	81.3	84.4	86.7	89.1	92.1	95.2	97.4	99.5	101.8	104.2	106.8
Retail Weight Less Pet Food	70.6	73.0	74.6	76.3	78.5	80.7	82.2	83.6	85.1	86.7	88.5
Change	1.1%	3.4%	2.2%	2.3%	2.8%	2.8%	1.8%	1.7%	1.8%	1.9%	2.1%
	(Cents per Pound)										
Prices											
12-City Wholesale	61.30	57.73	56.88	57.16	58.21	58.87	58.28	57.83	58.02	58.79	58.81
Change	8.7%	-5.8%	-1.5%	0.5%	1.8%	1.1%	-1.0%	-0.8%	0.3%	1.3%	0.0%
Broiler Retail	156.97	150.33	148.86	149.30	150.10	150.31	149.99	147.78	149.50	150.49	150.44
Change	9.3%	-4.2%	-1.0%	0.3%	0.5%	0.1%	-0.2%	-1.5%	1.2%	0.7%	0.0%
Net Returns	7.62	5.57	5.97	6.16	6.66	6.75	5.53	4.62	4.27	4.39	3.98

U.S. Egg Supply and Utilization

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	
	(Million Dozen)											
Supply	6,373	6,495	6,607	6,736	6,830	6,920	7,006	7,069	7,119	7,165	7,222	
Beginning Stocks	11	12	12	12	12	12	12	12	12	12	12	
Production	6,356	6,479	6,591	6,720	6,814	6,904	6,990	7,053	7,103	7,149	7,206	
Imports	5	4	4	4	4	4	4	4	4	4	4	
Disappearance	6,381	6,484	6,595	6,723	6,817	6,908	6,994	7,057	7,107	7,153	7,210	
Civilian Disappearance	5,262	5,322	5,397	5,491	5,567	5,636	5,696	5,735	5,764	5,794	5,827	
Shell Egg	3,868	3,880	3,905	3,943	3,969	3,987	4,007	4,003	3,989	3,975	3,962	
Breaking Egg	1,394	1,442	1,493	1,548	1,599	1,649	1,689	1,732	1,775	1,820	1,865	
Hatching Egg	859	892	922	955	979	1,007	1,031	1,053	1,075	1,097	1,121	
Exports	260	270	276	278	270	265	267	269	268	263	262	
Ending Stock	12	12	12	12	12	12	12	12	12	12	12	
	(Eggs)											
Per Capita Consumption	174.7	173.7	173.3	173.5	173.1	172.5	171.9	170.3	168.3	166.4	164.5	
Shell Egg	0.6%	-0.6%	-0.3%	0.1%	-0.2%	-0.4%	-0.3%	-0.9%	-1.2%	-1.2%	-1.1%	
Change	62.2	64.6	66.2	68.1	69.7	71.3	72.5	73.7	74.9	76.2	77.5	
Breaking Egg	3.2%	3.7%	2.6%	2.8%	2.4%	2.3%	1.6%	1.7%	1.7%	1.7%	1.7%	
Change	Total	237.0	238.3	239.5	241.6	242.8	243.8	244.3	244.0	243.2	242.5	242.0
	(Cents per Dozen)											
Prices	88.20	71.90	73.54	72.70	74.14	77.34	76.14	74.83	75.26	75.70	75.72	
N.Y. Grade A Lg. Wholesale	21.0%	-18.5%	2.3%	-1.1%	2.0%	4.3%	-1.6%	-1.7%	0.6%	0.6%	0.0%	
Change	112.70	95.34	97.44	97.06	99.13	103.15	102.42	101.47	102.36	103.27	103.74	
Shell Egg Retail	20.9%	-15.4%	2.2%	-0.4%	2.1%	4.1%	-0.7%	-0.9%	0.9%	0.9%	0.5%	
Change	Net Returns	14.35	1.26	5.36	4.72	5.70	8.45	6.61	4.95	4.92	4.70	4.43

U.S. Dairy

- **Policy assumptions** for this baseline are derived from the 1996 Farm Bill. These assumptions include: phasing down of the milk support price from \$10.35 per cwt in 1996 to \$9.90 per cwt in 1999 with corresponding reductions in support prices for butter, cheese, and nonfat dry milk; eliminating government purchases of dairy products beginning in 2000; eliminating producer assessments; and maintaining DEIP exports at WTO maximum levels throughout the baseline. Provisions of the 1996 Farm Bill not specifically addressed in this baseline include reduction of federal milk marketing orders and the Northeast Dairy Compact.
- The **all-milk price** is projected to decline by \$1.06 per cwt in 1997 to \$13.69 per cwt due to increases in milk production resulting from lower feed costs. Milk prices continue to decline after 1997 as slightly fewer cows are more than offset by increases in rBST usage. In 2000, milk prices fall \$.39 per cwt to \$13.00 per cwt as government support price programs end and excess nonfat dry milk is pushed into cheese production. For the remainder of the baseline period, the supply side backs off in response to lower prices and reaches an all-milk price of \$13.21 per cwt by 2006.
- It is assumed that 20 percent of all dairy cows will receive **rBST** injections in 1997 and that production per cow will increase an additional 1,600 pounds per cow for those cows that receive injections. The adoption rate increases to 25 percent in 1998, 27.5 percent in 1999, and an additional 2.5 percent per year until 2000 and then 1.0 percent per year until 2006 when adoption rates reach 38.5 percent.
- **Milk production** is expected to increase by only 1.5 billion pounds in 1997 as production per cow increases by 225 pounds following a 1.2 billion pound decline in total production in 1996. Increases in milk production vary from 1.0 to 1.5 percent throughout the forecast period as the industry adjusts to rBST adoption and fluctuations in output and input prices.

State-Level Dairy Supply

- **California dairy cows** on farms are expected to increase 11 thousand head in 1997 from 1996 to 1.27 million head. Throughout the baseline period, there are steady increases in dairy cows for California with 2006 inventory equaling 1.33 million head. Correspondingly, **milk production for California** increases from 26.5 billion pounds in 1997 to 31.9 billion pounds in 2006.
- **Idaho dairy cows** on farms are expected to increase 22 thousand head in 1997 from 1996 to 278 thousand head. By 2006, dairy cow inventory of 428 thousand head exceeds 1996 inventory by 67 percent. **Milk production for Idaho** reaches 9.4 billion pounds by 2006 as a result of increasing cow inventory and production gains per cow.
- **New Mexico dairy cows** on farms are expected to increase slightly to 200 thousand head in 1997. Throughout the baseline period, there are small year-to-year increases in dairy cows for New Mexico with 2006 inventory equaling 3 million head. Over the same period, **milk production for New Mexico** increases from 3.7 billion pounds in 1996 to 6.4 billion pounds in 2006.
- In contrast to the states already mentioned, **Wisconsin dairy cows** on farms are expected to decline in 1997 to 1.41 million head. Throughout the baseline period, there are steady declines in dairy cows for Wisconsin with 2006 inventory equaling 1.17 million head. California inventory surpasses Wisconsin inventory in 2001 with the gap increasing toward the end of the baseline. **Wisconsin milk production** declines from 22 billion pounds in 1997 to 20.7 billion pounds in 2006 as declines in cow inventory more than offset gains in milk production per cow.
- State-level **all-milk prices** mirror the national all-milk price throughout the baseline period. Those states with more III-A sales tend to have slightly lower all-milk prices than corresponding states with little or no III-A sales.

U.S. Dairy Cows by State

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Thousand Head)										
Alabama	32	29	27	26	24	23	21	20	19	18	17
Alaska	1	1	1	1	1	1	1	1	1	1	1
Arizona	119	124	128	132	135	138	140	142	144	146	147
Arkansas	57	56	55	54	54	53	52	51	50	50	49
California	1,263	1,274	1,283	1,292	1,300	1,305	1,311	1,317	1,323	1,329	1,334
Colorado	84	84	84	85	85	85	86	86	86	86	86
Connecticut	30	29	27	26	25	23	22	21	20	19	18
Delaware	10	10	10	10	10	10	10	10	10	10	10
Florida	156	151	147	143	139	136	132	129	125	122	119
Georgia	97	94	92	90	87	85	83	81	79	77	75
Hawaii	10	9	8	8	8	7	7	7	7	6	6
Idaho	256	278	300	320	339	357	373	389	403	416	428
Illinois	158	156	154	152	150	148	146	144	142	140	138
Indiana	140	137	134	132	129	127	124	122	120	118	116
Iowa	250	249	248	247	245	243	241	239	237	235	234
Kansas	82	83	82	82	82	82	81	81	81	80	80
Kentucky	153	146	140	135	129	124	119	115	111	107	104
Louisiana	78	77	76	76	75	75	74	74	73	72	72
Maine	40	40	39	39	39	39	38	38	38	38	38
Maryland	87	83	79	77	74	71	69	66	64	62	61
Massachusetts	27	26	26	25	25	25	24	24	23	23	23
Michigan	326	327	328	329	329	328	328	327	327	326	325
Minnesota	598	597	597	596	594	591	587	584	581	577	574
Mississippi	51	48	45	42	40	37	35	33	32	30	29
Missouri	179	171	163	156	150	144	138	133	128	124	120
Montana	20	19	19	18	18	18	18	17	17	17	17
Nebraska	69	65	61	57	54	51	48	45	43	41	39
Nevada	25	26	27	28	29	29	30	31	31	32	33
New Hampshire	19	18	17	17	16	15	15	14	13	13	12
New Jersey	23	23	23	23	23	23	23	23	23	23	23
New Mexico	195	200	206	215	225	236	248	261	274	286	299
New York	702	700	699	698	696	694	691	689	687	684	682
North Carolina	82	79	77	75	73	71	69	67	66	65	64
North Dakota	63	61	60	59	58	57	56	55	54	53	53
Ohio	285	281	278	276	273	270	267	264	262	259	257
Oklahoma	97	97	97	97	97	97	96	96	96	95	95
Oregon	93	90	88	86	85	83	82	80	79	78	77
Pennsylvania	644	645	647	649	651	652	653	654	654	655	655
Rhode Island	2	2	2	1	1	1	1	1	1	1	1
South Carolina	26	25	24	24	23	23	22	22	21	21	20
South Dakota	112	107	104	103	102	102	101	100	99	99	98
Tennessee	115	105	97	90	84	79	74	70	68	65	64
Texas	398	397	397	399	400	400	400	400	400	400	399
Utah	92	95	98	100	102	104	106	107	109	110	111
Vermont	156	156	155	155	154	154	153	152	152	151	151
Virginia	126	123	121	118	116	113	111	108	106	104	102
Washington	264	266	269	274	277	280	282	284	286	287	288
West Virginia	20	19	19	19	18	18	18	17	17	17	16
Wisconsin	1,448	1,410	1,377	1,350	1,327	1,302	1,276	1,251	1,225	1,199	1,173
Wyoming	6	6	5	5	5	5	4	4	4	4	4
Total	9,360	9,296	9,241	9,209	9,176	9,131	9,088	9,048	9,011	8,973	8,935

U.S. Milk Production by State

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Million Pounds)										
Alabama	429	411	395	380	366	351	337	325	313	302	292
Alaska	13	14	14	15	15	16	16	17	17	17	17
Arizona	2,386	2,530	2,671	2,799	2,914	3,022	3,120	3,215	3,303	3,387	3,465
Arkansas	687	681	679	676	671	667	661	656	652	648	643
California	25,802	26,470	27,183	27,841	28,430	29,020	29,583	30,165	30,731	31,307	31,856
Colorado	1,633	1,678	1,727	1,772	1,814	1,856	1,897	1,937	1,976	2,015	2,055
Connecticut	494	473	454	435	417	399	382	366	351	337	324
Delaware	148	150	152	154	156	157	158	159	159	160	161
Florida	2,376	2,351	2,343	2,329	2,307	2,286	2,262	2,240	2,218	2,198	2,176
Georgia	1,475	1,446	1,434	1,419	1,399	1,380	1,359	1,341	1,322	1,305	1,287
Hawaii	128	119	115	110	107	103	100	97	94	92	89
Idaho	4,709	5,229	5,757	6,268	6,760	7,243	7,709	8,165	8,606	9,034	9,443
Illinois	2,530	2,529	2,542	2,550	2,550	2,547	2,542	2,540	2,538	2,538	2,537
Indiana	2,170	2,156	2,156	2,154	2,146	2,138	2,128	2,121	2,115	2,113	2,109
Iowa	3,826	3,867	3,917	3,956	3,977	3,995	4,005	4,019	4,030	4,044	4,054
Kansas	1,195	1,224	1,252	1,277	1,298	1,317	1,334	1,351	1,367	1,384	1,399
Kentucky	1,851	1,798	1,763	1,729	1,685	1,644	1,603	1,569	1,537	1,510	1,482
Louisiana	841	841	845	847	846	844	841	838	835	832	829
Maine	648	653	662	669	674	680	684	689	693	698	702
Maryland	1,317	1,268	1,232	1,197	1,162	1,130	1,098	1,070	1,044	1,021	999
Massachusetts	437	430	428	427	427	429	427	425	424	423	422
Michigan	5,528	5,639	5,761	5,864	5,947	6,030	6,104	6,179	6,248	6,321	6,386
Minnesota	9,476	9,581	9,749	9,882	9,978	10,072	10,147	10,225	10,294	10,366	10,425
Mississippi	656	624	598	574	550	528	506	486	468	451	435
Missouri	2,458	2,373	2,310	2,248	2,183	2,121	2,062	2,010	1,962	1,920	1,880
Montana	307	296	297	298	297	297	296	296	296	295	295
Nebraska	1,045	991	946	904	863	824	787	753	723	695	669
Nevada	458	486	513	537	558	578	597	617	638	659	680
New Hampshire	324	311	302	292	283	273	265	256	248	241	234
New Jersey	302	308	314	320	325	330	334	338	342	345	348
New Mexico	3,745	3,883	4,073	4,291	4,539	4,829	5,131	5,443	5,763	6,094	6,430
New York	11,530	11,648	11,832	12,014	12,167	12,318	12,452	12,592	12,727	12,866	12,995
North Carolina	1,323	1,291	1,275	1,262	1,243	1,226	1,210	1,199	1,190	1,183	1,177
North Dakota	807	806	804	802	798	793	787	782	778	774	770
Ohio	4,449	4,490	4,525	4,550	4,566	4,582	4,593	4,607	4,620	4,636	4,650
Oklahoma	1,255	1,276	1,304	1,327	1,346	1,363	1,377	1,391	1,404	1,417	1,428
Oregon	1,603	1,582	1,572	1,565	1,558	1,552	1,546	1,542	1,539	1,536	1,534
Pennsylvania	10,640	10,822	11,054	11,258	11,438	11,617	11,781	11,950	12,110	12,271	12,421
Rhode Island	31	28	25	23	22	21	20	20	19	19	19
South Carolina	384	380	377	375	372	369	365	363	360	358	355
South Dakota	1,474	1,445	1,436	1,445	1,464	1,481	1,496	1,511	1,525	1,539	1,552
Tennessee	1,580	1,468	1,375	1,291	1,212	1,143	1,086	1,042	1,008	984	965
Texas	6,118	6,197	6,322	6,453	6,553	6,656	6,747	6,841	6,926	7,011	7,084
Utah	1,547	1,622	1,697	1,766	1,826	1,881	1,932	1,983	2,031	2,079	2,124
Vermont	2,535	2,562	2,600	2,632	2,657	2,682	2,703	2,725	2,746	2,768	2,788
Virginia	1,799	1,779	1,775	1,767	1,748	1,730	1,711	1,695	1,680	1,667	1,652
Washington	5,278	5,386	5,533	5,694	5,825	5,949	6,061	6,168	6,264	6,352	6,426
West Virginia	252	250	250	250	249	248	247	246	245	244	243
Wisconsin	22,341	22,011	21,908	21,785	21,687	21,579	21,423	21,267	21,082	20,899	20,680
Wyoming	88	85	82	79	77	74	71	69	67	65	63
Total	154,427	155,936	158,330	160,552	162,447	164,369	166,083	167,900	169,626	171,419	173,051

U.S. All-Milk Prices by State

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Dollars per Hundredweight)										
Alabama	16.33	15.24	15.10	14.97	14.57	14.55	14.57	14.66	14.62	14.80	14.75
Alaska	20.35	20.40	20.45	20.50	20.55	20.60	20.65	20.70	20.75	20.80	20.85
Arizona	14.88	13.84	13.65	13.50	13.09	13.07	13.10	13.18	13.15	13.31	13.25
Arkansas	16.17	15.09	14.96	14.84	14.45	14.45	14.47	14.58	14.55	14.74	14.70
California	13.63	12.51	12.42	12.32	11.93	11.93	11.95	12.06	12.03	12.24	12.20
Colorado	14.71	13.67	13.47	13.32	12.91	12.89	12.92	13.00	12.97	13.13	13.07
Connecticut	15.63	14.57	14.42	14.30	13.91	13.90	13.94	14.04	14.01	14.20	14.16
Delaware	15.33	14.28	14.12	13.99	13.60	13.60	13.63	13.73	13.71	13.89	13.85
Florida	18.00	16.89	16.79	16.69	16.30	16.30	16.32	16.43	16.40	16.61	16.57
Georgia	16.31	15.21	15.10	14.99	14.61	14.61	14.63	14.74	14.71	14.91	14.88
Hawaii	23.09	23.12	23.15	23.18	23.22	23.25	23.28	23.31	23.35	23.38	23.41
Idaho	13.85	12.96	12.67	12.50	12.10	12.10	12.19	12.28	12.29	12.43	12.39
Illinois	14.53	13.45	13.32	13.21	12.83	12.82	12.85	12.96	12.93	13.13	13.09
Indiana	14.80	13.70	13.61	13.52	13.15	13.16	13.19	13.31	13.29	13.51	13.48
Iowa	14.22	13.19	13.02	12.89	12.50	12.50	12.55	12.65	12.64	12.82	12.78
Kansas	14.18	13.13	12.99	12.87	12.49	12.49	12.53	12.64	12.63	12.82	12.79
Kentucky	15.47	14.41	14.30	14.21	13.84	13.86	13.91	14.04	14.03	14.25	14.23
Louisiana	16.42	15.34	15.20	15.07	14.68	14.67	14.70	14.80	14.76	14.95	14.90
Maine	15.96	14.90	14.75	14.63	14.24	14.23	14.26	14.37	14.34	14.53	14.49
Maryland	15.33	14.27	14.12	13.99	13.60	13.60	13.63	13.73	13.71	13.89	13.85
Massachusetts	15.76	14.69	14.53	14.40	14.00	13.99	14.01	14.11	14.08	14.25	14.21
Michigan	15.03	13.94	13.82	13.71	13.33	13.33	13.35	13.46	13.43	13.64	13.60
Minnesota	14.59	13.53	13.39	13.27	12.88	12.88	12.92	13.02	13.00	13.19	13.15
Mississippi	16.18	15.10	14.97	14.86	14.47	14.47	14.50	14.61	14.58	14.78	14.74
Missouri	15.23	14.04	13.88	13.76	13.37	13.36	13.40	13.50	13.48	13.66	13.62
Montana	15.29	14.33	14.01	13.83	13.40	13.40	13.50	13.60	13.61	13.75	13.72
Nebraska	14.22	13.18	13.02	12.90	12.51	12.51	12.55	12.66	12.64	12.83	12.79
Nevada	14.14	13.17	12.94	12.79	12.39	12.38	12.44	12.54	12.53	12.68	12.64
New Hampshire	15.66	14.60	14.45	14.33	13.94	13.93	13.96	14.07	14.04	14.23	14.19
New Jersey	15.41	14.37	14.21	14.08	13.69	13.69	13.74	13.84	13.82	14.01	13.97
New Mexico	13.87	12.90	12.68	12.53	12.14	12.14	12.21	12.31	12.30	12.46	12.43
New York	14.88	13.84	13.68	13.55	13.17	13.17	13.21	13.31	13.29	13.48	13.44
North Carolina	16.75	15.65	15.54	15.43	15.05	15.05	15.07	15.18	15.15	15.35	15.32
North Dakota	13.82	12.76	12.62	12.50	12.11	12.11	12.15	12.25	12.23	12.42	12.38
Ohio	14.87	14.24	14.13	14.03	13.64	13.64	13.66	13.77	13.74	13.95	13.91
Oklahoma	15.70	14.69	14.48	14.33	13.92	13.91	13.95	14.04	14.02	14.17	14.12
Oregon	14.43	13.54	13.24	13.07	12.67	12.67	12.76	12.85	12.86	12.99	12.95
Pennsylvania	15.61	14.56	14.40	14.27	13.88	13.87	13.91	14.01	13.98	14.16	14.12
Rhode Island	15.63	14.57	14.42	14.30	13.91	13.90	13.94	14.04	14.01	14.20	14.16
South Carolina	16.39	15.29	15.18	15.08	14.69	14.69	14.71	14.82	14.79	15.00	14.96
South Dakota	14.50	13.44	13.30	13.18	12.79	12.79	12.83	12.94	12.91	13.10	13.07
Tennessee	15.88	14.81	14.67	14.56	14.17	14.17	14.20	14.31	14.29	14.48	14.44
Texas	15.23	14.18	13.98	13.83	13.42	13.40	13.42	13.50	13.46	13.62	13.56
Utah	14.02	13.01	12.81	12.67	12.28	12.27	12.32	12.42	12.40	12.57	12.53
Vermont	15.38	14.32	14.17	14.05	13.66	13.65	13.68	13.79	13.76	13.95	13.91
Virginia	15.34	14.24	14.13	14.02	13.64	13.64	13.66	13.77	13.74	13.94	13.91
Washington	14.41	13.52	13.22	13.05	12.65	12.65	12.74	12.83	12.84	12.97	12.93
West Virginia	15.24	14.61	14.50	14.40	14.01	14.01	14.03	14.14	14.11	14.32	14.28
Wisconsin	14.72	13.66	13.52	13.40	13.01	13.01	13.05	13.15	13.13	13.32	13.28
Wyoming	13.79	12.75	12.59	12.47	12.08	12.08	12.12	12.23	12.21	12.40	12.36
All Milk	14.75	13.69	13.53	13.39	13.00	12.98	13.01	13.11	13.08	13.25	13.21

U.S. Dairy Products

- The **wholesale price of cheese** is expected to decline to \$1.40 per pound in 1997 after reaching a 10-year high in 1996 of \$1.49 per pound. The wholesale cheese price remains in the \$1.37 to \$1.38 per pound range through 1999. In 2000, there is a \$.04 per pound decline in the cheese price corresponding to increases in cheese production as excess nonfat dry milk is pushed into the cheese vat. During the 2001 to 2006 period there is a \$.01 to \$.02 per pound increase in the wholesale cheese price as the industry adjusts to market forces. In the early and later portions of the baseline, wholesale cheese prices lend support to the all-milk price and contribute to its weakness during 2000 to 2002.
- Annual **per capita consumption of cheese** is projected to continue, showing year-to-year increases throughout the projection period, exceeding 32 pounds per person by 2006.
- The **wholesale butter price** is expected to remain well above the CCC purchase price for butter in 1997 at \$.80 per pound. As is the case for all dairy products, 1997 is a year of lower prices after short supplies and high prices in 1996. The wholesale butter price declines throughout the baseline but never reaches a level where the United States is able to commercially export butter. After 1999, CCC removals of butter cease and the price becomes dependent on domestic demand and DEIP exports.
- Annual **per capita butter consumption** is expected to remain relatively constant throughout the baseline. Per capita butter consumption increases slightly in 1997 to 3.62 pounds in response to lower prices. Consumption remains in the 3.6 to 3.9 pound range throughout the period.
- Wholesale **nonfat dry milk prices** are substantially above the CCC purchase price during 1996 and 1997 but as supply begins to respond, prices begin to fall close to support prices in 1998. A \$.05 per pound decline in the nonfat dry price occurs between 1999 and 2000 as government price support activity ends and wholesale prices reach \$.965 per pound. Wholesale nonfat dry prices remain above world levels, with the domestic market absorbing the excess nonfat dry milk after 1999. Also lending support to the wholesale nonfat dry milk price is the continuation of exports, under DEIP, at WTO maximum levels.
- **Per capita nonfat dry consumption** declines in 1997 to 3.5 pounds per person. This consumption begins to build after 1997, reaching 3.68 pounds per person in 2000. After 2000, the level of per capita consumption on the nonfat dry side begins to decline, but the 2006 level of 3.48 pounds does not vary significantly from current levels.

U.S. Total Cheese Supply and Utilization

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Million Pounds)										
Supply	7,927	8,119	8,325	8,533	8,738	8,960	9,149	9,345	9,542	9,714	9,879
Beginning Stocks	409	444	409	409	409	409	409	409	409	409	409
Production	7,177	7,326	7,560	7,761	7,959	8,180	8,367	8,560	8,756	8,926	9,089
Imports	342	349	356	363	370	372	374	375	377	379	381
Utilization	7,483	7,710	7,916	8,124	8,351	8,551	8,740	8,936	9,133	9,305	9,497
Foreign Use	98	100	101	103	105	107	109	111	113	115	117
Exports	55	57	58	60	62	64	66	68	70	72	74
Shipments	43	43	43	43	43	43	43	43	43	43	43
Domestic Use	7,385	7,610	7,814	8,021	8,246	8,444	8,632	8,825	9,021	9,190	9,380
Commercial	7,385	7,610	7,814	8,021	8,246	8,444	8,632	8,825	9,021	9,190	9,380
Government Donations	0	0	0	0	0	0	0	0	0	0	0
Ending Stocks	444	409	409	409	409	409	409	409	409	409	409
Commercial	444	409	409	409	409	409	409	409	409	409	409
Government	0	0	0	0	0	0	0	0	0	0	0
Carry-in	0	0	0	0	0	0	0	0	0	0	0
Removals	1	0	0	0	0	0	0	0	0	0	0
DEIP	4	4	4	4	4	4	4	4	4	4	4
Domestic Donations	0	0	0	0	0	0	0	0	0	0	0
Other Disappearance	5	4	4	4	4	4	4	4	4	4	4
	(Pounds)										
Per Capita Consumption	27.8	28.4	28.9	29.4	30.0	30.4	30.9	31.3	31.7	32.1	32.5
	(Cents per Pound)										
Prices	149.15	139.52	138.60	137.59	133.80	133.78	133.91	134.96	134.57	136.59	136.16
Wholesale 40-lb Block	114.50	113.02	111.53	110.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CCC Price											
	(Dollars per Pound)										
Retail	3.32	3.16	3.15	3.14	3.06	3.07	3.09	3.13	3.13	3.19	3.19

U.S. Butter Supply and Utilization

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Million Pounds)										
Supply	1,011	1,013	1,048	1,076	1,093	1,103	1,109	1,127	1,136	1,155	1,178
Beginning Stocks	19	11	11	11	10	10	10	10	10	10	10
Production	985	996	1,031	1,058	1,076	1,086	1,092	1,110	1,119	1,138	1,160
Imports	7	7	7	7	7	7	7	7	7	7	7
Utilization	1,000	1,002	1,037	1,066	1,083	1,093	1,099	1,117	1,126	1,145	1,168
Total Foreign Use	56	31	46	47	47	47	47	47	47	47	47
Exports	55	30	45	46	46	46	46	46	46	46	46
Shipments	1	1	1	1	1	1	1	1	1	1	1
Domestic Use	944	971	991	1,019	1,036	1,046	1,052	1,070	1,079	1,098	1,121
Commercial	942	971	991	1,019	1,036	1,046	1,052	1,070	1,079	1,098	1,121
Government Donations	2	0	0	0	0	0	0	0	0	0	0
Ending Stocks	11	11	11	10	10	10	10	10	10	10	10
Commercial	10	10	10	10	10	10	10	10	10	10	10
Government	1	1	1	0	0	0	0	0	0	0	0
Carry-in	3	1	1	1	0	0	0	0	0	0	0
Removals	0	0	0	0	0	0	0	0	0	0	0
DEIP	0	15	35	45	46	46	46	46	46	46	46
Domestic Donations	2	0	0	0	0	0	0	0	0	0	0
Other Disappearance	0	15	35	46	46	46	46	46	46	46	46
	(Pounds)										
Per Capita Consumption	3.54	3.62	3.67	3.74	3.77	3.77	3.76	3.79	3.79	3.83	3.88
	(Cents per Pound)										
Prices											
Wholesale	100.35	80.38	76.68	75.31	75.94	73.49	71.77	70.07	69.69	68.69	68.04
CCC Price	65.00	65.00	65.00	65.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(Dollars per Pound)										
Retail	2.05	1.69	1.64	1.61	1.62	1.59	1.56	1.53	1.53	1.51	1.50

U.S. Aggregate Measures

Land Use

Agricultural Exports

Consumer Price Indexes for Food

Consumer Food Expenditures

Government Costs

Cash Receipts from Farm Marketings

Farm Production Expenses

Net Farm Income

U.S. Land Use

- Under the provisions of the FAIR Act , **CRP enrollment** is capped at 36.4 million acres. Through 1995, CRP enrollment stood at 35.7 million acres, with 22.8 million acres from base reductions of program commodities. Wheat base acreage represents the largest single commodity contribution, with 10.7 million acres enrolled in 1995/96.
- As **CRP contracts** begin to expire in 1997/98, total CRP area falls to 30.0 million acres as some contracts are not extended. It is assumed that contract holders may re-bid their land and that new land may also be bid into the CRP. While not all bids will be accepted and some current contracts will not be extended, the net effect is an increase in CRP area starting in 1999/00. Area in the program reaches almost 34 million acres by 2005/06.
- Given the price paths of program crops, the **planting flexibility provisions** of the FAIR Act allow feed grain area to expand at the cost of cotton and rice area. This shifting is a continuation of the changes occurring while normal flex acres existed.
- The **0-85 and 50-85 programs**, formerly 0-92 and 50-92, were eliminated by the FAIR Act. A portion of the land idled under these programs will remain unplanted and will receive payments for production flexibility contracts. Historically, these programs have idled over 10 million acres of program crop area each year.
- Total **area planted** to 15 principal crops increased in 1996/97 due to high commodity prices. As prices moderate in 1997/98, planted area is projected to decrease by 7 million acres in 1997/98. By 2005/06, planted area reaches 270.0 million acres.

U.S. Planted and Idled Area

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
15-Crop Total Area	310.9	306.0	299.5	299.1	298.1	300.7	301.6	303.1	303.5	303.8	304.3
Planted	255.9	270.7	266.2	269.2	267.4	268.8	268.2	269.3	269.6	269.8	270.4
Payment	112.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	143.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Idled	55.0	35.3	33.3	30.0	30.7	31.9	33.5	33.8	33.9	33.9	33.9
ARP, PLD, 0-92/85	19.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	35.7	35.3	33.3	30.0	30.7	31.9	33.5	33.8	33.9	33.9	33.9
Wheat Total Area	86.0	86.2	80.3	82.6	82.3	84.9	84.5	85.3	85.2	85.0	84.7
Planted	69.1	75.6	70.2	73.6	73.1	75.4	74.6	75.3	75.1	74.9	74.6
Payment	47.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	22.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARP, PLD, 0-92/85	6.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	10.7	10.6	10.1	9.1	9.2	9.5	9.9	10.0	10.1	10.1	10.1
Corn Total Area	83.0	83.5	84.5	83.4	84.5	85.1	85.1	86.1	86.5	86.9	87.6
Planted	71.2	79.5	80.7	80.0	80.9	81.4	81.2	82.1	82.6	82.9	83.7
Payment	43.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	28.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARP, PLD, 0-92/85	7.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	4.1	4.0	3.7	3.4	3.6	3.8	4.0	4.0	4.0	4.0	4.0
Sorghum Total Area	13.5	15.6	13.2	13.2	13.2	13.2	13.3	13.4	13.5	13.6	13.7
Planted	9.5	13.2	11.0	11.2	11.2	11.0	11.1	11.1	11.2	11.3	11.4
Payment	4.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	4.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARP, PLD, 0-92/85	1.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	2.4	2.4	2.3	2.0	2.0	2.2	2.3	2.3	2.3	2.3	2.3
Barley Total Area	11.9	9.9	10.0	10.0	9.8	9.6	9.8	9.8	9.7	9.8	9.9
Planted	6.7	7.2	7.4	7.6	7.4	7.2	7.3	7.3	7.2	7.2	7.3
Payment	4.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	2.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARP, PLD, 0-92/85	2.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	2.8	2.7	2.6	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.5
Oats Total Area	8.4	6.0	6.2	5.8	5.6	5.5	5.4	5.4	5.3	5.2	5.1
Planted	6.3	4.7	4.9	4.7	4.4	4.3	4.2	4.1	4.0	3.9	3.8
Payment	0.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	5.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARP, PLD, 0-92/85	0.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	1.4	1.3	1.3	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3
Soybean Total Area	66.7	68.1	68.7	68.6	67.1	66.8	67.1	66.8	66.9	67.1	67.0
Planted	62.6	64.2	65.0	65.3	63.7	63.2	63.4	63.1	63.2	63.3	63.3
CRP	4.1	3.9	3.7	3.3	3.4	3.6	3.7	3.8	3.8	3.8	3.8

U.S. Planted and Idled Area (continued)

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
Cotton Total Area	18.3	15.8	14.9	14.6	14.4	14.2	14.4	14.3	14.3	14.3	14.3
Planted	16.7	14.4	13.6	13.5	13.3	13.0	13.1	13.1	13.1	13.0	13.0
Payment	9.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	6.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARP, PLD, 50-92/85	0.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	1.4	1.4	1.3	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.3
Rice Total Area	3.7	2.8	3.0	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6
Planted	3.1	2.8	2.9	2.8	2.8	2.7	2.7	2.7	2.7	2.6	2.6
Payment	2.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	0.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARP, PLD, 50-92/85	0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sugar											
Harvested	2.3	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
6 Other Crops /a											
Planted /b	8.3	7.0	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
Other CRP Area	8.8	8.9	8.3	7.6	7.8	8.1	8.6	8.7	8.7	8.7	8.7
Hay											
Harvested	59.6	61.0	60.9	60.6	60.3	60.2	60.0	59.7	59.5	59.5	59.5
15 Crops + Hay	370.5	367.0	360.4	359.8	358.5	360.9	361.6	362.8	363.0	363.2	363.8
Planted	315.5	331.7	327.1	329.8	327.8	329.0	328.1	329.0	329.1	329.3	329.9
Payment	112.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nonpayment	203.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Idled	55.0	35.3	33.3	30.0	30.7	31.9	33.5	33.8	33.9	33.9	33.9
ARP, PLD, 0-92/85	19.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CRP	35.7	35.3	33.3	30.0	30.7	31.9	33.5	33.8	33.9	33.9	33.9

a/ Sunflowers, peanuts, edible beans, tobacco, rye, and flaxseed.

b/ Harvested area for tobacco and rye.

U.S. Wheat Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
CRP Idled	10.72	10.61	10.09	9.08	9.21	9.48	9.92	10.04	10.10	10.10	10.10
Corn Belt	0.72	0.72	0.68	0.63	0.67	0.72	0.78	0.78	0.78	0.78	0.78
Delta States	0.25	0.24	0.23	0.21	0.22	0.23	0.25	0.25	0.25	0.25	0.25
Far West	1.10	1.07	0.99	0.76	0.79	0.84	0.89	0.90	0.90	0.90	0.90
Lake States	0.46	0.43	0.39	0.31	0.31	0.32	0.35	0.35	0.35	0.35	0.35
Northeast	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Northern Plains	5.34	5.32	5.13	4.86	4.88	4.91	5.08	5.15	5.19	5.19	5.19
Southeast	0.59	0.58	0.55	0.48	0.49	0.53	0.56	0.57	0.58	0.58	0.58
Southern Plains	2.25	2.23	2.11	1.83	1.85	1.91	2.00	2.03	2.05	2.05	2.05
Planted Area	69.13	75.64	70.22	73.56	73.13	75.40	74.63	75.31	75.10	74.88	74.56
Corn Belt	4.81	5.56	4.25	4.64	4.64	4.80	4.70	4.74	4.69	4.63	4.55
Delta States	1.38	1.69	1.20	1.49	1.44	1.52	1.50	1.53	1.54	1.54	1.55
Far West	6.05	6.60	6.35	6.25	6.18	6.47	6.37	6.48	6.48	6.45	6.42
Lake States	3.08	3.45	3.34	3.36	3.30	3.44	3.38	3.40	3.36	3.31	3.25
Northeast	0.67	0.73	0.70	0.65	0.65	0.68	0.68	0.69	0.68	0.68	0.67
Northern Plains	36.92	41.09	38.05	40.76	40.51	41.48	41.14	41.40	41.28	41.17	41.02
Southeast	3.06	3.05	3.11	2.89	2.86	3.00	2.98	3.03	3.05	3.06	3.06
Southern Plains	13.16	13.47	13.21	13.53	13.54	14.01	13.88	14.04	14.02	14.04	14.03
Harvested Area	60.95	62.85	62.12	65.19	64.85	66.89	66.28	66.93	66.81	66.68	66.45
Corn Belt	4.53	4.45	3.87	4.25	4.25	4.41	4.31	4.34	4.30	4.24	4.17
Delta States	1.25	1.60	1.08	1.35	1.31	1.39	1.37	1.40	1.40	1.41	1.41
Far West	5.62	6.33	5.98	5.89	5.82	6.09	6.00	6.11	6.10	6.08	6.05
Lake States	3.01	3.21	3.20	3.21	3.16	3.29	3.23	3.25	3.21	3.17	3.11
Northeast	0.65	0.69	0.66	0.61	0.61	0.64	0.64	0.64	0.64	0.63	0.63
Northern Plains	35.36	36.16	36.00	38.51	38.33	39.25	38.98	39.26	39.20	39.13	39.04
Southeast	2.39	2.51	2.60	2.39	2.36	2.49	2.47	2.52	2.53	2.55	2.55
Southern Plains	8.15	7.91	8.74	8.97	9.01	9.33	9.28	9.41	9.43	9.47	9.50
	(Bushels per Acre)										
Yield	35.81	36.30	38.53	38.47	38.73	39.01	39.26	39.53	39.78	40.01	40.24
Corn Belt	50.99	38.55	50.53	50.92	51.37	51.78	52.22	52.64	53.06	53.48	53.89
Delta States	45.10	52.39	43.42	43.95	44.53	45.09	45.66	46.21	46.77	47.33	47.88
Far West	65.91	70.54	66.17	66.89	67.58	68.12	68.79	69.37	69.99	70.60	71.21
Lake States	38.94	41.17	41.31	41.55	41.79	42.01	42.24	42.47	42.69	42.91	43.13
Northeast	59.12	48.63	55.64	56.48	57.29	58.09	58.87	59.64	60.40	61.15	61.88
Northern Plains	30.32	31.04	33.63	33.61	33.82	33.92	34.13	34.28	34.46	34.63	34.80
Southeast	45.98	47.53	47.15	47.85	48.50	49.12	49.75	50.36	50.97	51.57	52.16
Southern Plains	23.08	21.82	29.00	29.14	29.30	29.41	29.58	29.72	29.87	30.01	30.16
	(Million Bushels)										
Production	2,183	2,282	2,393	2,508	2,512	2,609	2,602	2,646	2,658	2,668	2,674
Corn Belt	231	171	195	216	218	228	225	229	228	227	224
Delta States	56	84	47	60	58	62	62	65	66	67	68
Far West	370	447	396	394	394	415	413	424	427	429	431
Lake States	117	132	132	134	132	138	137	138	137	136	134
Northeast	38	34	37	34	35	37	37	38	39	39	39
Northern Plains	1,072	1,122	1,211	1,294	1,296	1,331	1,330	1,346	1,351	1,355	1,359
Southeast	110	119	122	114	114	122	123	127	129	131	133
Southern Plains	188	173	253	261	264	275	275	280	282	284	286

U.S. Corn Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
CRP Idled	4.08	4.04	3.72	3.42	3.56	3.75	3.96	3.98	3.95	3.95	3.95
Corn Belt	1.92	1.90	1.75	1.66	1.75	1.86	1.98	1.98	1.96	1.96	1.96
Delta States	0.03	0.04	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04
Far West	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake States	0.79	0.77	0.70	0.65	0.70	0.75	0.79	0.79	0.78	0.78	0.78
Northeast	0.05	0.05	0.05	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Northern Plains	0.75	0.75	0.70	0.57	0.57	0.56	0.59	0.60	0.60	0.60	0.60
Southeast	0.44	0.44	0.41	0.37	0.38	0.41	0.43	0.43	0.43	0.43	0.43
Southern Plains	0.09	0.09	0.08	0.07	0.08	0.09	0.09	0.09	0.09	0.09	0.09
Planted Area	71.25	79.49	80.74	80.00	80.89	81.37	81.17	82.08	82.56	82.93	83.70
Corn Belt	32.25	34.95	36.71	36.45	36.94	37.21	37.10	37.52	37.73	37.88	38.19
Delta States	0.63	1.41	1.22	1.22	1.23	1.24	1.24	1.25	1.25	1.26	1.26
Far West	0.82	0.94	0.94	0.94	0.95	0.94	0.94	0.95	0.96	0.96	0.98
Lake States	12.80	14.05	14.03	13.83	13.94	13.98	13.97	14.12	14.23	14.30	14.44
Northeast	3.44	3.68	3.62	3.55	3.55	3.56	3.55	3.58	3.59	3.59	3.62
Northern Plains	14.74	17.09	16.90	16.74	16.86	16.99	16.94	17.09	17.15	17.19	17.32
Southeast	4.19	4.95	4.85	4.84	4.99	5.01	5.02	5.13	5.21	5.29	5.43
Southern Plains	2.38	2.43	2.46	2.44	2.44	2.44	2.42	2.44	2.44	2.45	2.46
Harvested Area	65.00	73.15	74.35	73.76	74.69	75.25	75.15	76.09	76.64	77.08	77.89
Corn Belt	31.27	34.10	35.75	35.54	36.04	36.32	36.24	36.68	36.91	37.08	37.40
Delta States	0.58	1.36	1.18	1.17	1.19	1.19	1.19	1.20	1.21	1.21	1.22
Far West	0.35	0.47	0.48	0.48	0.49	0.48	0.48	0.49	0.49	0.50	0.51
Lake States	11.37	12.25	12.43	12.28	12.41	12.47	12.50	12.67	12.79	12.89	13.05
Northeast	2.25	2.45	2.40	2.35	2.35	2.37	2.36	2.39	2.41	2.41	2.44
Northern Plains	13.52	16.08	15.72	15.58	15.72	15.86	15.83	16.00	16.08	16.14	16.28
Southeast	3.55	4.39	4.16	4.16	4.31	4.34	4.36	4.47	4.55	4.64	4.77
Southern Plains	2.10	2.05	2.22	2.20	2.20	2.20	2.19	2.20	2.20	2.21	2.22
	(Bushels per Acre)										
Yield	113.45	127.05	127.60	129.39	130.84	132.33	133.95	135.33	136.77	138.22	139.57
Corn Belt	116.92	132.48	133.94	135.78	137.22	138.75	140.45	141.86	143.37	144.89	146.30
Delta States	101.73	114.75	109.79	112.21	114.56	116.86	119.12	121.32	123.48	125.59	127.66
Far West	163.94	164.50	173.18	175.53	177.83	180.09	182.30	184.44	186.55	188.61	190.62
Lake States	116.90	115.75	122.24	123.85	125.28	126.72	128.15	129.48	130.81	132.13	133.40
Northeast	100.57	121.22	111.27	112.22	113.11	113.97	114.84	115.67	116.50	117.31	118.11
Northern Plains	105.88	131.96	126.43	128.20	129.58	130.92	132.45	133.69	135.03	136.35	137.55
Southeast	104.16	105.98	106.82	109.18	111.35	113.62	115.89	118.04	120.18	122.32	124.38
Southern Plains	116.28	117.31	119.95	121.07	122.14	123.20	124.27	125.30	126.32	127.32	128.31
	(Million Bushels)										
Production	7,374	9,293	9,487	9,544	9,773	9,958	10,066	10,298	10,482	10,653	10,871
Corn Belt	3,656	4,518	4,789	4,826	4,945	5,040	5,090	5,204	5,291	5,372	5,472
Delta States	59	156	130	132	136	139	142	146	149	152	156
Far West	57	78	83	84	87	87	88	90	92	94	97
Lake States	1,329	1,418	1,520	1,520	1,554	1,581	1,601	1,640	1,674	1,704	1,741
Northeast	226	297	267	263	266	270	271	277	280	283	288
Northern Plains	1,432	2,121	1,988	1,998	2,037	2,077	2,097	2,139	2,171	2,201	2,239
Southeast	370	465	445	454	480	493	505	527	547	567	593
Southern Plains	245	241	266	266	268	271	272	275	278	281	285

U.S. Sorghum Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
CRP Idled	2.44	2.39	2.26	1.98	2.05	2.16	2.28	2.32	2.34	2.34	2.34
Corn Belt	0.18	0.18	0.17	0.15	0.15	0.17	0.18	0.18	0.18	0.18	0.18
Delta States	0.13	0.13	0.12	0.11	0.12	0.12	0.13	0.13	0.13	0.13	0.13
Far West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	1.07	1.06	1.01	0.87	0.88	0.91	0.95	0.96	0.97	0.97	0.97
Southeast	0.13	0.13	0.12	0.11	0.11	0.12	0.13	0.13	0.13	0.13	0.13
Southern Plains	0.93	0.90	0.84	0.74	0.78	0.84	0.90	0.92	0.93	0.93	0.93
Planted Area	9.45	13.19	10.96	11.17	11.17	11.04	11.06	11.12	11.20	11.25	11.39
Corn Belt	0.70	0.83	0.71	0.67	0.67	0.67	0.66	0.67	0.67	0.67	0.67
Delta States	0.33	0.46	0.42	0.45	0.46	0.47	0.47	0.48	0.49	0.49	0.49
Far West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	5.00	6.57	5.54	5.89	5.90	5.79	5.83	5.83	5.86	5.89	5.95
Southeast	0.14	0.16	0.13	0.13	0.12	0.12	0.11	0.11	0.11	0.11	0.11
Southern Plains	3.28	5.17	4.15	4.04	4.02	3.99	3.99	4.04	4.07	4.10	4.18
Harvested Area	8.28	12.00	9.64	9.80	9.80	9.70	9.71	9.77	9.83	9.87	9.98
Corn Belt	0.66	0.80	0.64	0.59	0.59	0.59	0.59	0.60	0.59	0.59	0.59
Delta States	0.31	0.45	0.39	0.41	0.41	0.43	0.43	0.44	0.44	0.44	0.45
Far West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	4.37	6.14	4.83	5.11	5.12	5.03	5.06	5.06	5.08	5.11	5.15
Southeast	0.09	0.11	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
Southern Plains	2.85	4.52	3.75	3.66	3.65	3.63	3.62	3.66	3.69	3.71	3.77
	(Bushels per Acre)										
Yield	55.61	66.89	66.35	66.94	67.51	68.09	68.62	69.11	69.58	70.04	70.46
Corn Belt	71.97	89.08	85.31	85.94	86.53	87.11	87.66	88.20	88.72	89.23	89.73
Delta States	69.94	74.04	72.66	73.24	73.81	74.36	74.90	75.41	75.91	76.40	76.87
Far West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	54.95	78.42	71.26	71.66	72.33	73.09	73.71	74.35	74.95	75.54	76.09
Southeast	59.71	63.64	60.17	60.79	61.38	61.97	62.54	63.09	63.64	64.17	64.69
Southern Plains	51.15	48.45	56.22	56.61	56.98	57.34	57.69	58.03	58.36	58.68	58.99
	(Million Bushels)										
Production	460	803	640	656	662	660	667	675	684	691	703
Corn Belt	48	71	54	51	51	52	52	53	53	53	53
Delta States	22	33	28	30	31	32	32	33	33	34	34
Far West	0	0	0	0	0	0	0	0	0	0	0
Lake States	0	0	0	0	0	0	0	0	0	0	0
Northeast	0	0	0	0	0	0	0	0	0	0	0
Northern Plains	240	481	344	366	370	368	373	376	381	386	392
Southeast	6	7	2	2	2	2	1	1	1	1	1
Southern Plains	146	219	211	207	208	208	209	212	215	218	222

U.S. Barley Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
CRP Idled	2.80	2.75	2.60	2.37	2.38	2.42	2.50	2.52	2.54	2.54	2.54
Corn Belt	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delta States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Far West	0.75	0.73	0.68	0.59	0.62	0.66	0.70	0.70	0.71	0.71	0.71
Lake States	0.25	0.23	0.20	0.17	0.17	0.18	0.18	0.19	0.19	0.19	0.19
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	1.74	1.73	1.66	1.55	1.53	1.52	1.55	1.57	1.58	1.58	1.58
Southeast	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Southern Plains	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Planted Area	6.69	7.17	7.35	7.60	7.43	7.21	7.31	7.25	7.19	7.23	7.34
Corn Belt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delta States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Far West	1.58	1.81	1.93	1.94	1.84	1.77	1.80	1.79	1.77	1.78	1.82
Lake States	0.74	0.67	0.67	0.71	0.70	0.67	0.68	0.68	0.67	0.68	0.69
Northeast	0.19	0.16	0.17	0.16	0.16	0.16	0.16	0.17	0.16	0.16	0.16
Northern Plains	4.01	4.37	4.42	4.61	4.55	4.44	4.49	4.45	4.42	4.44	4.49
Southeast	0.16	0.14	0.14	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Southern Plains	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Harvested Area	6.28	6.79	6.91	7.14	6.98	6.78	6.87	6.82	6.76	6.80	6.90
Corn Belt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delta States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Far West	1.46	1.70	1.80	1.82	1.72	1.66	1.68	1.68	1.66	1.67	1.70
Lake States	0.68	0.62	0.61	0.65	0.64	0.61	0.62	0.61	0.61	0.61	0.63
Northeast	0.18	0.15	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Northern Plains	3.82	4.19	4.21	4.39	4.34	4.24	4.28	4.24	4.21	4.23	4.28
Southeast	0.13	0.12	0.12	0.13	0.13	0.12	0.12	0.12	0.12	0.13	0.13
Southern Plains	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	(Bushels per Acre)										
Yield	57.26	58.47	59.60	60.00	60.48	61.06	61.63	62.24	62.78	63.33	63.89
Corn Belt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delta States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Far West	77.57	69.23	74.58	75.52	76.62	77.67	78.56	79.48	80.43	81.31	82.14
Lake States	49.79	62.02	59.96	60.43	60.91	61.39	61.84	62.28	62.72	63.14	63.55
Northeast	75.32	65.05	73.04	74.03	75.00	75.95	76.88	77.79	78.69	79.57	80.44
Northern Plains	49.40	53.17	52.24	52.60	53.05	53.52	53.91	54.34	54.75	55.14	55.50
Southeast	75.23	67.90	75.06	76.29	77.51	78.70	79.88	81.04	82.18	83.30	84.41
Southern Plains	41.00	31.64	39.45	39.61	39.76	39.90	40.04	40.16	40.28	40.38	40.48
	(Million Bushels)										
Production	360	397	412	428	422	414	423	425	425	431	441
Corn Belt	0	0	0	0	0	0	0	0	0	0	0
Delta States	0	0	0	0	0	0	0	0	0	0	0
Far West	113	118	134	137	132	129	132	133	133	136	140
Lake States	34	38	36	39	39	37	38	38	38	39	40
Northeast	13	10	12	11	11	12	12	12	12	12	12
Northern Plains	189	223	220	231	230	227	231	230	231	233	237
Southeast	10	8	9	10	10	10	10	10	10	10	11
Southern Plains	0	0	0	1	0	0	0	0	0	0	0

U.S. Oat Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
CRP Idled	1.37	1.35	1.27	1.15	1.16	1.19	1.26	1.27	1.27	1.27	1.27
Corn Belt	0.17	0.17	0.16	0.15	0.16	0.17	0.18	0.18	0.18	0.18	0.18
Delta States	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Far West	0.02	0.02	0.02	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
Lake States	0.29	0.27	0.25	0.21	0.22	0.24	0.25	0.25	0.25	0.25	0.25
Northeast	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Northern Plains	0.75	0.75	0.72	0.65	0.65	0.65	0.68	0.70	0.70	0.70	0.70
Southeast	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
Southern Plains	0.06	0.06	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Planted Area	6.34	4.66	4.94	4.67	4.43	4.27	4.19	4.08	4.03	3.94	3.84
Corn Belt	1.51	0.59	0.56	0.50	0.47	0.46	0.45	0.45	0.44	0.43	0.41
Delta States	0.02	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Far West	0.60	0.51	0.52	0.52	0.51	0.51	0.51	0.50	0.50	0.50	0.50
Lake States	1.33	0.82	0.86	0.80	0.75	0.72	0.70	0.69	0.68	0.67	0.65
Northeast	0.35	0.30	0.30	0.30	0.28	0.28	0.28	0.28	0.28	0.28	0.27
Northern Plains	1.59	1.51	1.71	1.59	1.48	1.39	1.33	1.26	1.22	1.17	1.10
Southeast	0.24	0.21	0.21	0.19	0.18	0.16	0.16	0.16	0.16	0.16	0.16
Southern Plains	0.71	0.70	0.76	0.75	0.73	0.72	0.72	0.72	0.72	0.72	0.71
Harvested Area	2.96	2.69	2.86	2.62	2.41	2.27	2.19	2.09	2.04	1.97	1.87
Corn Belt	0.46	0.40	0.39	0.34	0.32	0.32	0.31	0.31	0.30	0.30	0.29
Delta States	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Far West	0.11	0.11	0.12	0.11	0.11	0.10	0.10	0.09	0.09	0.09	0.09
Lake States	0.81	0.63	0.66	0.60	0.54	0.51	0.50	0.48	0.47	0.46	0.44
Northeast	0.29	0.25	0.24	0.24	0.23	0.23	0.23	0.22	0.22	0.22	0.22
Northern Plains	1.02	1.04	1.18	1.07	0.96	0.88	0.82	0.76	0.72	0.67	0.61
Southeast	0.12	0.11	0.12	0.11	0.11	0.10	0.10	0.10	0.10	0.10	0.10
Southern Plains	0.14	0.12	0.14	0.13	0.12	0.12	0.12	0.11	0.11	0.11	0.11
	(Bushels per Acre)										
Yield	54.70	57.77	58.11	58.42	58.75	59.07	59.36	59.63	59.88	60.13	60.38
Corn Belt	65.28	63.88	61.52	61.58	61.63	61.69	61.74	61.79	61.84	61.89	61.94
Delta States	85.00	72.00	77.51	78.28	79.04	79.79	80.53	81.26	81.99	82.71	83.42
Far West	86.06	82.19	84.36	85.18	85.97	86.74	87.49	88.22	88.92	89.60	90.27
Lake States	51.96	57.33	58.72	58.88	59.03	59.17	59.31	59.44	59.57	59.70	59.81
Northeast	58.84	58.54	59.68	59.79	59.91	60.02	60.12	60.23	60.33	60.43	60.53
Northern Plains	49.45	55.40	54.91	55.28	55.65	56.01	56.35	56.69	57.02	57.35	57.66
Southeast	49.43	56.76	59.54	59.84	60.13	60.40	60.67	60.93	61.18	61.42	61.66
Southern Plains	41.57	33.33	43.47	43.69	43.91	44.13	44.34	44.54	44.74	44.94	45.13
	(Million Bushels)										
Production	162	155	166	153	142	134	130	125	122	118	113
Corn Belt	30	26	24	21	20	20	19	19	19	18	18
Delta States	2	2	2	2	2	2	2	2	2	2	2
Far West	9	9	10	10	9	9	9	8	8	8	8
Lake States	42	36	39	35	32	30	29	28	28	27	26
Northeast	17	15	15	14	14	14	14	14	13	13	13
Northern Plains	50	58	65	59	53	49	46	43	41	38	35
Southeast	6	6	7	7	6	6	6	6	6	6	6
Southern Plains	6	4	6	6	5	5	5	5	5	5	5

U.S. Hay Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
Harvested Area	59.65	61.03	60.92	60.64	60.34	60.16	59.97	59.73	59.53	59.46	59.53
Corn Belt	8.02	8.31	8.31	8.21	8.12	8.05	7.99	7.93	7.87	7.85	7.84
Delta States	2.09	2.26	2.19	2.17	2.19	2.21	2.21	2.21	2.20	2.20	2.19
Far West	6.11	5.97	5.99	6.00	6.00	5.99	5.99	5.99	5.98	5.99	6.00
Lake States	6.33	6.03	6.08	6.12	6.10	6.07	6.02	5.97	5.92	5.88	5.84
Northeast	5.19	5.00	4.97	4.91	4.84	4.78	4.72	4.66	4.60	4.54	4.51
Northern Plains	17.83	18.21	18.39	18.32	18.24	18.19	18.12	18.04	17.98	17.95	17.95
Southeast	7.78	7.86	8.02	8.08	8.11	8.13	8.16	8.16	8.16	8.18	8.23
Southern Plains	6.31	7.40	6.98	6.81	6.74	6.73	6.76	6.78	6.82	6.88	6.97
	(Tons per Acre)										
Yield	2.59	2.45	2.56	2.58	2.60	2.62	2.64	2.66	2.68	2.70	2.72
Corn Belt	2.81	2.49	2.68	2.70	2.71	2.72	2.73	2.75	2.76	2.77	2.78
Delta States	2.12	2.28	2.32	2.36	2.39	2.43	2.46	2.49	2.52	2.56	2.59
Far West	4.29	4.10	4.20	4.24	4.29	4.33	4.37	4.41	4.45	4.49	4.53
Lake States	2.97	2.70	2.91	2.91	2.92	2.92	2.93	2.93	2.93	2.94	2.94
Northeast	2.17	2.30	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26
Northern Plains	2.20	2.12	2.15	2.17	2.20	2.23	2.25	2.28	2.31	2.33	2.36
Southeast	2.30	2.32	2.37	2.40	2.42	2.45	2.48	2.50	2.53	2.55	2.58
Southern Plains	2.19	1.95	2.28	2.28	2.29	2.30	2.30	2.30	2.31	2.31	2.31
	(Million Tons)										
Production	154.8	149.5	155.8	156.4	156.9	157.7	158.3	158.9	159.5	160.4	161.7
Corn Belt	22.5	20.7	22.3	22.1	22.0	21.9	21.8	21.8	21.7	21.7	21.8
Delta States	4.4	5.1	5.1	5.1	5.2	5.4	5.4	5.5	5.6	5.6	5.7
Far West	26.2	24.5	25.1	25.5	25.7	25.9	26.2	26.4	26.6	26.9	27.2
Lake States	18.8	16.2	17.7	17.8	17.8	17.7	17.6	17.5	17.4	17.3	17.2
Northeast	11.2	11.5	11.2	11.1	10.9	10.8	10.7	10.5	10.4	10.3	10.2
Northern Plains	39.3	38.7	39.5	39.9	40.2	40.5	40.9	41.2	41.5	41.9	42.3
Southeast	17.9	18.3	19.0	19.4	19.6	19.9	20.2	20.4	20.6	20.9	21.2
Southern Plains	13.8	14.4	15.9	15.6	15.4	15.5	15.5	15.6	15.7	15.9	16.1

U.S. Rice Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
CRP Idled	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Arkansas	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
California	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Louisiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mississippi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Missouri	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Texas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Planted Area	3.12	2.82	2.94	2.83	2.82	2.73	2.72	2.68	2.65	2.62	2.63
Arkansas	1.35	1.18	1.24	1.23	1.23	1.18	1.17	1.15	1.14	1.12	1.13
California	0.47	0.50	0.50	0.50	0.50	0.49	0.49	0.49	0.49	0.49	0.50
Louisiana	0.58	0.54	0.56	0.53	0.52	0.50	0.50	0.49	0.48	0.48	0.48
Mississippi	0.29	0.21	0.26	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.20
Missouri	0.12	0.09	0.11	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.09
Texas	0.32	0.30	0.28	0.26	0.26	0.25	0.25	0.25	0.25	0.24	0.25
Harvested Area	3.09	2.80	2.91	2.81	2.79	2.71	2.70	2.66	2.63	2.60	2.61
Arkansas	1.34	1.17	1.22	1.22	1.22	1.17	1.16	1.14	1.13	1.12	1.12
California	0.47	0.50	0.50	0.50	0.49	0.49	0.49	0.49	0.49	0.49	0.49
Louisiana	0.57	0.53	0.56	0.52	0.52	0.50	0.50	0.49	0.48	0.47	0.47
Mississippi	0.29	0.21	0.25	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.20
Missouri	0.11	0.09	0.10	0.10	0.09	0.09	0.09	0.09	0.09	0.08	0.08
Texas	0.32	0.30	0.28	0.26	0.25	0.25	0.25	0.25	0.24	0.24	0.24
	(Pounds per Acre)										
Yield	5,621	6,121	6,101	6,166	6,204	6,263	6,299	6,344	6,386	6,427	6,458
Arkansas	5,449	6,149	5,890	5,927	5,959	6,015	6,048	6,089	6,126	6,163	6,191
California	7,603	7,492	8,362	8,426	8,482	8,543	8,586	8,634	8,679	8,723	8,756
Louisiana	4,598	4,874	4,831	4,881	4,915	4,952	4,983	5,016	5,049	5,081	5,109
Mississippi	5,400	6,000	5,841	5,895	5,931	5,970	6,005	6,041	6,075	6,110	6,141
Missouri	5,300	5,550	5,369	5,391	5,411	5,430	5,448	5,466	5,483	5,499	5,515
Texas	5,598	6,196	6,018	6,062	6,088	6,117	6,137	6,160	6,182	6,206	6,222
	(Million Hundredweight)										
Production	173.87	171.32	177.84	173.01	173.17	169.50	170.13	168.86	168.15	167.15	168.51
Arkansas	73.02	71.95	72.12	72.07	72.40	70.22	70.44	69.59	69.21	68.73	69.26
California	35.35	37.46	41.87	41.84	41.96	41.85	42.26	42.44	42.64	42.78	43.27
Louisiana	26.21	25.98	27.02	25.50	25.37	24.82	24.81	24.58	24.36	24.09	24.22
Mississippi	15.55	12.48	14.77	12.84	12.97	12.62	12.56	12.39	12.19	11.96	11.99
Missouri	5.94	5.00	5.48	5.12	5.01	4.86	4.84	4.74	4.68	4.61	4.61
Texas	17.80	18.47	16.58	15.65	15.47	15.12	15.21	15.12	15.06	14.97	15.16

U.S. Upland Cotton Production

	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
	(Million Acres)										
CRP Idled	1.41	1.36	1.29	1.08	1.11	1.18	1.25	1.26	1.26	1.26	1.26
Corn Belt	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delta States	0.06	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06	0.06
Far West	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southeast	0.08	0.07	0.07	0.07	0.07	0.07	0.08	0.08	0.07	0.07	0.07
Southern Plains	1.26	1.24	1.16	0.96	0.99	1.05	1.12	1.13	1.13	1.13	1.13
Planted Area	16.72	14.41	13.56	13.52	13.28	13.03	13.12	13.08	13.08	13.04	13.00
Corn Belt	0.46	0.39	0.36	0.35	0.35	0.35	0.36	0.36	0.36	0.36	0.36
Delta States	3.72	3.01	2.87	2.92	2.89	2.83	2.86	2.86	2.86	2.85	2.85
Far West	1.54	1.32	1.28	1.24	1.20	1.19	1.20	1.20	1.19	1.19	1.18
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southeast	4.16	3.64	3.34	3.39	3.36	3.33	3.35	3.32	3.30	3.26	3.22
Southern Plains	6.84	6.05	5.71	5.61	5.47	5.32	5.35	5.34	5.36	5.38	5.39
Harvested Area	15.80	12.58	12.81	12.77	12.54	12.30	12.38	12.35	12.34	12.31	12.27
Corn Belt	0.45	0.39	0.35	0.35	0.35	0.35	0.35	0.36	0.36	0.36	0.35
Delta States	3.60	2.98	2.80	2.86	2.83	2.76	2.80	2.79	2.79	2.79	2.78
Far West	1.53	1.31	1.27	1.24	1.19	1.18	1.19	1.19	1.18	1.18	1.17
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southeast	4.09	3.61	3.29	3.34	3.31	3.29	3.30	3.28	3.25	3.22	3.17
Southern Plains	6.13	4.30	5.08	4.99	4.86	4.72	4.75	4.73	4.76	4.77	4.78
	(Pounds per Acre)										
Yield	533	703	675	682	690	699	705	712	718	724	730
Corn Belt	544	748	740	750	761	771	781	791	800	809	818
Delta States	625	766	780	786	793	801	806	812	818	823	829
Far West	975	1,162	1,264	1,275	1,286	1,296	1,305	1,314	1,323	1,331	1,340
Lake States	0	0	0	0	0	0	0	0	0	0	0
Northeast	0	0	0	0	0	0	0	0	0	0	0
Northern Plains	185	408	374	383	392	401	409	417	424	432	439
Southeast	538	708	670	680	690	700	709	718	727	736	745
Southern Plains	364	511	468	473	478	483	488	493	497	501	506
	(Million Bales)										
Production	17.53	18.42	18.00	18.16	18.02	17.90	18.20	18.32	18.47	18.57	18.65
Corn Belt	0.51	0.60	0.55	0.54	0.55	0.56	0.58	0.59	0.59	0.60	0.60
Delta States	4.68	4.75	4.56	4.68	4.67	4.61	4.70	4.72	4.76	4.78	4.80
Far West	3.11	3.17	3.34	3.28	3.19	3.19	3.23	3.25	3.26	3.26	3.27
Lake States	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northeast	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Northern Plains	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Southeast	4.58	5.32	4.60	4.73	4.76	4.79	4.87	4.90	4.93	4.94	4.92
Southern Plains	4.65	4.58	4.95	4.92	4.84	4.75	4.83	4.86	4.93	4.99	5.04

U.S. Agricultural Exports

- Although the **quantity of U.S. agricultural exports** will likely fall in fiscal year 1997 due to a decline in grain exports, they will rebound quickly. The export level is projected to break the 200 mmt mark for the first time in 2005.
- The **value of exports** will also expand, not only because of increased levels but also because of strong prices for all agricultural commodities. Export value will increase from less than \$60 billion to more than \$80 billion by 2006, a 37 percent increase over the 10-year period. The export of livestock products and feed grains benefit the most from new international demand.
- The **value of animals and animal product exports** approaches the value of grain exports by the end of the period.
- By 1999, **U.S. pork net exports** surpass those of the EU, making the United States the world's largest net exporter of pork. Also, by period end, the United States will be exporting nearly as much beef as Australia, the country that currently dominates the market.
- Direct feed-grain exports, led by corn, are projected to increase by 30 mmt over the period and reach 80 mmt by 2005.
- The United States also indirectly exports feeds in the form of meat, with feed-grain export equivalents growing by approximately 12 mmt.

Quantity of U.S. Agricultural Exports

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(1,000 Metric Tons, Fiscal Year)										
Total	162,848	153,365	162,377	174,461	181,777	185,063	190,156	194,570	198,482	203,230	208,235
Animals and Animal Products	5,747	6,185	6,783	7,386	7,636	7,772	8,115	8,655	9,007	9,277	9,673
Grains and Feeds	115,899	103,468	111,516	122,327	128,784	131,236	135,003	138,222	141,131	144,862	148,435
Wheat (Unmilled and Flour)	32,720	27,535	29,892	32,663	34,645	34,791	34,936	34,974	35,066	35,081	36,679
Rice (Paddy Milled)	3,101	2,804	2,939	2,759	2,674	2,571	2,509	2,428	2,357	2,314	2,315
Feed Grains and Products	65,700	58,680	63,660	71,269	75,241	77,198	80,346	83,073	85,491	88,710	90,183
Other Grains and Feeds	14,378	14,449	15,026	15,637	16,224	16,676	17,212	17,747	18,217	18,757	19,257
Oilseeds and Products	31,616	34,849	34,548	34,366	34,433	34,831	35,373	35,640	35,938	36,279	36,894
Cotton (excl. Linters)	1,601	1,397	1,469	1,517	1,483	1,447	1,440	1,425	1,410	1,393	1,374
Other Products	7,986	7,466	8,060	8,865	9,442	9,778	10,225	10,628	10,997	11,419	11,860

Value of U.S. Agricultural Exports

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Million Dollars, Fiscal Year)										
Total	58,478	57,027	57,500	60,788	63,816	65,768	68,950	71,850	74,435	77,169	80,362
Animals and Animal Products	10,860	12,307	14,221	16,229	17,137	18,009	19,198	20,434	21,231	22,566	23,993
Meat and Meat Products	4,648	5,581	6,951	8,367	8,892	9,356	10,125	10,959	11,336	12,212	13,025
Poultry and Poultry Products	2,659	3,090	3,247	3,437	3,569	3,717	3,946	4,170	4,366	4,515	4,743
Dairy Products	602	501	497	528	533	550	565	579	591	598	607
Hides and Skins	1,498	1,668	1,922	2,147	2,328	2,490	2,585	2,658	2,814	3,009	3,264
Other Animal Products	1,453	1,467	1,604	1,749	1,815	1,897	1,977	2,068	2,125	2,233	2,354
Grains and Feeds	21,584	18,153	17,099	18,199	19,745	20,003	21,130	21,994	22,977	23,513	24,224
Wheat (Unmilled and Flour)	6,500	5,230	4,354	4,666	5,452	5,494	5,845	5,968	5,972	5,979	6,318
Rice (Paddy Milled)	1,157	1,062	1,056	985	950	934	922	904	888	898	929
Feed Grains and Products	9,891	7,881	7,573	8,422	9,090	9,431	10,171	10,728	11,231	12,032	12,458
Corn	8,885	6,913	6,615	7,437	8,061	8,343	9,026	9,531	9,968	10,696	11,062
Other Feed Grains	1,006	969	958	985	1,029	1,088	1,146	1,197	1,262	1,337	1,396
Other Grains and Feeds	4,036	3,979	4,117	4,125	4,253	4,143	4,191	4,395	4,886	4,603	4,519
Oilseeds and Products	9,452	10,735	9,879	9,352	9,347	9,640	9,880	10,101	10,343	10,643	11,133
Soybeans	6,100	6,960	6,301	5,911	5,894	6,043	6,159	6,304	6,460	6,660	6,985
Other Oilseeds and Products	3,352	3,775	3,579	3,441	3,453	3,597	3,721	3,797	3,883	3,983	4,147
Cotton (excl. Linters)	3,075	2,411	2,403	2,428	2,384	2,371	2,397	2,386	2,367	2,349	2,335
Other Products	13,506	13,422	13,897	14,580	15,204	15,745	16,344	16,935	17,517	18,098	18,678

U.S. Consumer Price Indexes for Food

- Consumer prices for **food at home** for 1997 are projected to be 1.6 percent above 1996 levels. However, this growth is very mild compared with the 5.3 percent growth from 1995 to 1996. By the end of the baseline, consumer prices for food at home are 37 percent above 1996 prices.
- **Cereal and bakery product prices** increase 7 percent in 1997 as 1996's higher crop prices flow through to final goods. This annual 7 percent growth continues throughout the projection period as export growth lends strength to U.S. wheat and corn prices.
- **Meat prices** for 1997 are slightly above 1996 levels. Beef prices increase 3 percent in 1997 as the beef cycle begins to turn and prices increase. Pork prices are up 2 percent while poultry prices decline 1 percent in 1997. Aggregate meat prices are up by slightly less than 40 percent by 2006 over 1996 levels.
- **Dairy prices** are expected to decline by 4 percent in 1997 in response to lower utilization. By the end of the projection period, dairy prices are close to 1996 levels. As has been the case the past few years, cheese prices lend support to the dairy side, with fluid milk and ice cream adding additional fervor.
- **Fruit and vegetable prices** average 5.2 percent annual growth over the projection period. Prices for sugar and sweeteners as well as for fats and oils show declines in the earlier half of the baseline and increase toward the end of the projection period.
- Consumer prices for **food away from home** steadily increase, just less than 4 percent per year. The trend continues in the food industry with more and more of the consumer food dollar being spent outside the home due to taste and lifestyle changes.

Consumer Price Indexes for Food

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(1982-84=100)										
Food	153.1	154.7	158.4	161.8	166.4	171.3	174.2	176.7	180.5	184.6	188.7
Food at Home	154.1	155.7	159.6	163.2	167.9	173.1	176.0	178.6	182.7	186.9	191.2
Cereal and Bakery	174.0	181.2	186.5	191.8	201.7	211.6	219.1	225.7	233.5	243.0	253.0
Meat	144.6	145.1	151.3	156.4	163.5	170.7	171.6	171.6	175.9	179.3	183.0
Beef	134.2	137.2	150.3	160.6	169.3	177.2	176.3	173.7	174.8	175.1	180.7
Pork	147.9	152.0	152.2	153.7	165.3	177.4	179.6	180.4	192.7	202.2	204.7
Poult	152.2	151.2	151.8	151.8	152.0	151.9	151.6	151.1	151.5	151.9	151.4
Eggs	143.3	115.4	121.2	122.6	128.5	138.0	138.9	139.3	143.2	147.2	150.3
Fish	173.0	177.2	181.8	186.6	191.6	196.6	201.8	207.0	212.3	217.7	223.3
Dairy	141.7	136.6	136.3	136.3	134.5	135.2	135.9	137.2	137.6	139.5	140.0
Milk	142.0	136.6	136.5	136.8	135.5	136.5	137.4	138.9	139.7	141.6	142.4
Cheese	147.9	141.7	141.3	140.8	137.6	138.0	138.6	140.2	140.3	142.7	142.8
Ice Cream	144.2	140.2	139.6	139.5	137.6	138.0	138.5	139.5	139.8	141.3	141.6
Other Dairy (inc. butter)	130.8	129.1	128.9	128.9	129.0	128.9	128.9	128.9	129.0	129.1	129.1
Fruit and Vegetables	183.7	188.1	192.8	197.8	202.9	208.2	213.5	218.9	224.4	230.0	235.7
Other Food at Home	142.9	143.5	144.7	146.1	147.6	149.3	151.1	152.9	154.9	156.9	159.1
Sugar and Sweets	143.6	140.3	139.0	139.8	140.8	141.9	143.0	144.0	145.0	146.2	147.3
Fats and Oils	140.5	138.5	137.9	138.6	139.2	141.2	143.5	145.9	149.4	152.8	157.1
Other Prepared Items	156.1	159.7	163.3	166.0	168.8	171.7	174.7	177.8	180.9	184.2	187.6
Non-alc. Beverages	128.5	127.7	127.4	127.6	127.8	128.1	128.4	128.6	128.8	129.1	129.4
Food Away from Home	152.6	154.1	157.5	160.7	164.9	169.5	172.2	174.5	178.1	181.9	185.7

U.S. Consumer Food Expenditures

- Per capita expenditures for **food at home** for 1997 are projected at \$1,210, 1.8 percent above 1996 expenditures. Over the baseline period, annual food at home expenditures increase over \$289 per capita to \$1,499.
- **Cereal and bakery product expenditures** increase 6 percent in 1997 in response to higher crop prices. Growth slows in later years as wheat and corn prices begin to moderate and per capita expenditures for cereal and bakery products reach \$300 per person by 2006.
- **Per capita meat expenditures** for 1997 are approximate to 1996 expenditures. Slight increases in pork and poultry expenditures are offset by declines in egg expenditures and constant beef and other meat expenditures. Per capita meat expenditures increase by an annual average of 2.5 percent over the projection period.
- **Dairy expenditures** are expected to decline by \$4 per person in 1997 in response to lower dairy prices. By the end of the projection, dairy expenditures of \$136 per person are slightly above 1996 levels.
- Annual growth in **fruit and vegetable expenditures** average 2.3 percent over the projection period. Expenditures for **sugar and sweeteners** as well as for **fats and oils** grow at slower rates of 0.7 and 1.4 percent throughout the baseline.
- Expenditures for **food away from home** steadily increase from a 1996 level of \$692 per person to \$783 per person by the end of the baseline. This category encompasses expenditures for breakfast, lunch, dinner, and other meals and snacks from restaurants and convenience stores.

Average Annual Per Capita Expenditures of Urban U.S. Households

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Dollars Per Person)										
Food (excluding alcohol)	1,881	1,906	1,948	1,985	2,035	2,088	2,121	2,151	2,194	2,240	2,282
Food at Home	1,189	1,210	1,243	1,270	1,309	1,349	1,375	1,398	1,432	1,467	1,499
Cereals and Bakery Prod.	195	207	215	222	235	247	258	267	278	291	300
Meats	306	306	318	328	342	356	359	360	369	376	384
Beef	89	89	93	97	100	103	103	102	103	103	105
Pork	65	66	68	70	74	78	80	80	84	88	90
Other Meat	77	77	81	83	87	91	92	92	94	96	98
Poultry	61	62	64	66	68	70	71	72	74	76	77
Eggs	14	12	12	12	13	14	14	14	14	14	14
Dairy	132	128	129	129	128	129	130	132	133	135	136
Milk	56	54	53	53	52	52	52	52	52	53	52
Other Dairy	76	75	75	76	76	77	78	80	81	83	84
Fruits and Vegetables	195	199	203	207	211	216	220	225	229	234	239
Sugar and Sweets	44	44	43	43	44	44	44	45	46	46	47
Fats and Oils	35	35	35	36	36	36	37	37	38	39	40
Beverages	107	113	117	119	122	124	126	128	130	132	135
Trips	20	21	22	23	24	25	26	27	28	29	30
Miscellaneous Foods	156	157	160	164	168	172	175	177	180	184	188
Food Away from Home	692	696	705	714	726	739	746	752	762	773	783

U.S. Government Costs

- With the 1996 FAIR Act directly specifying the amount to be spent on contract payments, the bulk of **government outlays** under the baseline is predetermined. Government costs are projected at \$8.3 billion for fiscal year 1997, up \$1.3 billion from the 1996 level. Increases in wheat and feed-grain outlays contribute to most of the rise in costs. Costs are projected to range between \$8 and \$9 billion through 2000, but decline thereafter as contract payments decline.
- **Feed-grain program costs** are projected to rise to \$3.06 billion in fiscal year 1997 as corn and grain sorghum contract payments increase. Outlays expand further in 1998 and then decline to \$2.2 billion by 2001.
- **Wheat outlays** are projected to increase to \$1.72 billion in fiscal year 1997 as higher net stock outlays more than offset lower contract payments. Fiscal year 1997 represents the high year outlays as the cost of the wheat program declines to \$1.1 billion by 2001.
- **Cotton program** costs increase marginally in fiscal year 1997, reaching \$720 million. After a further increase in 1998, outlays generally decline thereafter. Given projected cotton prices, loan deficiency payments are not triggered throughout the baseline.
- **Outlays for the rice program** are projected to decline to \$445 million in fiscal 1997. The decline from the 1996 level of \$499 million is due in large part to the presence of 1995 crop-deficiency payments in fiscal year 1996. After increasing to just over \$500 million in 1998, outlays decline to \$350 million for the longer term.
- With the increase in marketing assessments under the FAIR Act, the **sugar program** generates net receipts of approximately \$45 million each year.
- **Dairy program outlays** are projected at \$95 million for fiscal year 1997. Outlays decline to \$75 million by fiscal year 2000 as the dairy price support program is phased out as legislated by the FAIR Act. Program costs after 2000 are associated with DEIP.
- The FAIR Act legislates maximum spending under the **Export Enhancement Program (EEP)** and the **Market Access Program (MAP)**. The MAP is assumed to operate at the maximum allowed level of \$90 million per year. The EEP is assumed to operate at the maximum appropriated level of \$100 million in fiscal year 1997. From 1998 through 2000, the EEP operates at the allowed levels under the FAIR Act. EEP expenditures fall dramatically thereafter as wheat export subsidies are discontinued when the EU is able to export at world prices.
- Outlays under the **Conservation Reserve Program (CRP)** are projected to remain steady at \$1.75 billion in fiscal year 1997. Outlays increase to \$1.9 billion longer term as the marginal decline in enrolled acres is more than offset by a higher average rental rate.

Total U.S. Government Costs, by Program (CCC Accounting)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
CCC	(Billion Dollars, Fiscal Year)										
Feed Grains	2.40	3.06	3.22	3.02	2.75	2.22	2.13	2.15	2.15	2.14	2.15
Corn	2.02	2.66	2.78	2.60	2.36	1.91	1.83	1.85	1.85	1.85	1.86
Sorghum	0.27	0.28	0.29	0.29	0.26	0.21	0.20	0.21	0.20	0.20	0.20
Barley	0.11	0.11	0.13	0.12	0.11	0.09	0.09	0.09	0.09	0.09	0.09
Oats	-0.04	0.13	0.09	0.07	0.13	0.15	0.16	0.14	0.14	0.15	0.16
Wheat	1.49	1.72	1.59	1.39	1.38	1.07	1.08	1.08	1.08	1.07	1.07
Soybeans	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cotton	0.68	0.72	0.79	0.77	0.69	0.57	0.56	0.56	0.57	0.56	0.56
Rice	0.50	0.44	0.50	0.48	0.44	0.36	0.35	0.35	0.35	0.35	0.35
Sugar	-0.06	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.05	-0.05	-0.05	-0.05
Dairy	-0.10	0.09	0.08	0.09	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Export Programs	0.16	0.19	0.58	0.63	0.66	0.31	0.31	0.15	0.15	0.15	0.15
Net Interest	0.14	0.05	0.07	0.05	0.05	0.03	0.02	0.01	0.01	0.00	0.00
Disaster Payments	0.10	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Conservation Reserve	0.00	1.75	1.81	1.74	1.81	1.86	1.93	1.94	1.93	1.93	1.94
Other Conservation Program	0.01	0.12	0.17	0.19	0.21	0.25	0.25	0.25	0.25	0.25	0.25
Other Net Costs	-0.04	0.13	0.09	0.07	0.13	0.15	0.16	0.14	0.14	0.15	0.16
Net CCC Outlays	5.21	8.30	8.85	8.38	8.15	6.85	6.81	6.66	6.64	6.63	6.66
Conservation Reserve	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Government Costs	6.96	8.30	8.85	8.38	8.15	6.85	6.81	6.66	6.64	6.63	6.66

Total U.S. Government Costs, by Function (CCC Accounting)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Direct Payments	(Billion Dollars, Fiscal Year)										
Deficiency Payments	0.60	-1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Diversion Payments	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Producer Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Conservation Reserve	1.76	1.87	1.98	1.92	2.02	2.11	2.18	2.19	2.18	2.18	2.19
Disaster Payments	0.10	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Contract Payments	5.16	6.39	5.81	5.61	5.14	4.14	4.02	4.02	4.02	4.02	4.02
Total Direct Payments	7.61	7.30	7.79	7.54	7.16	6.25	6.20	6.21	6.19	6.19	6.20
Stock Outlays											
Loans Made	3.91	4.02	6.29	6.79	6.45	6.10	5.35	5.02	4.81	4.51	4.31
Loans Repaid	1.76	1.87	1.98	1.92	2.02	2.11	2.18	2.19	2.18	2.18	2.19
Storage and Handling	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.04	0.04
Net Dairy Purchases	0.01	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Stock Outlays	-0.50	0.54	0.23	-0.05	0.02	-0.02	0.00	0.03	0.03	0.01	0.03
Other Net Costs	-0.15	0.46	0.84	0.89	0.97	0.62	0.61	0.43	0.42	0.42	0.43
Total Government Costs	6.96	8.30	8.85	8.38	8.15	6.85	6.81	6.66	6.64	6.63	6.66

U.S. Cash Receipts from Farm Marketings

- **Cash receipts from farm marketings** for 1997 are projected to decline to \$195.3 billion, a \$2.7 billion decline from the 1996 level. Receipts expand to \$224.5 billion by 2006 for an annual average growth of 1.6 percent.
- Weaker prices in 1997 will lower **feed-grain cash receipts** to \$25.2 billion in 1997. This represents a \$1.3 billion decline from the record level of \$26.5 billion in 1996. Continued lower prices cause cash receipts to decline to \$23 billion by 1998. Stronger prices coupled with increased production drive feed-grain receipts up to \$29.4 billion by 2006.
- **Food-grain cash receipts** for 1997 are projected to fall by \$1.5 billion due mainly to lower wheat prices. After weakening to \$8 billion in 1998, wheat cash receipts recover to \$10 billion by the end of the projection period. Cash receipts for rice range between \$1.5 and \$1.7 billion.
- **Oilseed cash receipts** for 1997 are projected to increase to \$17.7 billion as production expands and prices remain firm. As soybean prices decline to around \$6 per bushel, cash receipts fall to \$16 billion. Receipts rebound on stronger soybean prices and reach \$19.6 billion by 2006.
- Reduced cotton acreage and lower prices will drive **cotton cash receipts** down to \$6.7 billion in 1997. Cotton receipts generally range between \$6 and \$7 billion for the life of the baseline.
- **Cash receipts for red meats** for 1997 are projected to increase to \$46.3 billion due to higher cattle receipts. Cattle receipts continue to expand through 2001, reaching \$54.4 billion, but then decline as the cycle turns. Hog receipts follow the pork cycle, with receipts peaking in 1997, 2001, and 2005.
- Higher milk prices more than offset lower production as 1996 **dairy cash receipts** surpassed \$23 billion. Weaker milk prices will result in cash receipts falling to \$21.4 billion for 1997. Receipts remain relatively stable through 2002 as lower milk prices offset increased production.
- **Cash receipts for poultry and eggs** are projected to fall by \$900 million in 1997 due to lower broiler and egg prices. However, cash receipts recover in 1998 and expand to \$28 billion by 2006 as production expands.

U.S. Cash Receipts from Farming

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Farm Marketings and CCC Loans	198.05	195.33	195.05	200.21	206.01	211.77	211.87	211.85	215.34	219.96	224.51
	(Billion Dollars)										
Crops	105.13	103.00	100.56	102.57	104.41	107.24	109.87	112.71	115.64	119.10	122.53
Feed Grains	26.50	25.22	22.96	23.22	23.92	24.57	25.44	26.25	27.20	28.39	29.39
Corn	20.07	19.08	17.05	17.31	17.97	18.60	19.45	20.23	21.04	22.01	22.78
Sorghum	1.56	1.33	1.24	1.27	1.30	1.35	1.39	1.43	1.47	1.52	1.57
Barley	0.95	0.86	0.82	0.83	0.84	0.87	0.88	0.88	0.91	0.94	0.97
Oats	0.15	0.13	0.12	0.11	0.11	0.11	0.11	0.11	0.10	0.10	0.10
Hay	3.77	3.82	3.73	3.70	3.69	3.65	3.60	3.61	3.68	3.82	3.96
Food Grains	11.27	9.79	9.64	10.34	10.75	11.12	11.33	11.39	11.45	11.63	11.81
Wheat	9.57	8.12	8.02	8.76	9.18	9.53	9.73	9.78	9.82	9.95	10.10
Rice	1.68	1.65	1.60	1.56	1.56	1.57	1.58	1.59	1.61	1.66	1.70
Rye	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Oilseeds	17.40	17.65	16.59	16.07	16.16	16.60	17.03	17.49	18.06	18.77	19.58
Cotton	7.13	6.67	6.39	6.34	6.42	6.61	6.75	6.83	6.91	6.99	7.11
Sugar	2.02	2.01	2.04	2.08	2.11	2.13	2.15	2.17	2.19	2.22	2.24
Other Crops /a	40.81	41.67	42.94	44.52	45.06	46.21	47.18	48.58	49.82	51.09	52.40
Livestock and Products	92.92	92.33	94.49	97.64	101.60	104.53	102.00	99.14	99.70	100.86	101.97
Red Meats	44.37	46.32	47.66	49.87	52.97	54.44	51.13	47.43	47.01	46.65	46.89
Cattle, Calves	31.64	33.39	35.87	38.66	40.88	41.50	38.53	35.33	34.06	32.93	33.75
Hogs	12.23	12.43	11.29	10.70	11.58	12.45	12.10	11.60	12.45	13.22	12.64
Sheep, Lambs	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Dairy Products	23.10	21.36	21.43	21.52	21.13	21.36	21.63	22.02	22.19	22.71	22.85
Poultry, Eggs	22.13	21.22	21.86	22.60	23.72	24.82	25.24	25.63	26.40	27.35	28.04
Broilers	13.56	13.45	13.77	14.39	15.20	15.96	16.35	16.76	17.35	18.11	18.73
Turkeys	2.97	2.99	3.13	3.20	3.33	3.39	3.43	3.43	3.52	3.63	3.64
Chicken Eggs	4.84	4.05	4.21	4.24	4.38	4.62	4.61	4.57	4.63	4.68	4.72
Other Poultry	0.76	0.73	0.75	0.77	0.81	0.85	0.86	0.87	0.90	0.93	0.95
Other Livestock /b	3.32	3.43	3.54	3.65	3.78	3.91	4.00	4.05	4.10	4.15	4.20
Government Payments	8.56	7.20	7.76	7.47	7.01	6.23	6.20	6.21	6.19	6.19	6.20
Total Cash Receipts	206.61	202.53	202.81	207.68	213.02	218.01	218.06	218.06	221.53	226.15	230.71

a/ Includes tobacco, vegetables and melons, fruits and tree nuts, and other crops.

b/ Includes horses, mules, and aquaculture.

U.S. Farm Production Expenses

- **Production expenses from farm-origin inputs** are projected to fall to \$44.1 billion in 1997, a \$600 million decline from the 1996 level. The decline is the result of higher purchased livestock expenses being more than offset by lower feed costs. Expenses from farm-origin inputs increase over the projection period with purchased livestock expenses contributing to the growth in the early years while feed expenses fuel the outer years.
- **Manufactured input expenses** are projected to be \$500 million lower in 1997 due to lower fuel prices. Expenses are projected to remain relatively stable through 1999, but increase thereafter as fuel prices increase and crop acreage expands.
- Lower interest rates cause 1997 **interest expenses** to decline to \$11.7 billion. Further declines in interest rates bring about lower interest expenses through 1999. Interest expenses increase to \$12.7 by 2006 as interest rates stabilize and production units expand.
- **Other operating expenses** are projected to remain stable at \$60.7 billion for 1997. Longer term, other operating expenses increase to \$69.7 billion by 2006. The growth in expenses is brought about by increased production coupled with higher wage rates.
- With declines in both rent to nonoperators and capital consumption, **other overhead expenses** are projected to fall by \$600 million in 1997. Other overhead expenses increase after 1997 due to increased rent and capital consumption. Expenses reach \$40.8 billion by 2006.
- Declines in feed costs and fuel prices are the primary drivers behind the projected \$2.9 billion decline in 1997 **total production expenses**. Production expenses increase after 1997, reaching \$202.1 billion in 2006.

U.S. Farm Production Expenses

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Billion Dollars)										
Farm-Origin Inputs	44.64	44.06	43.64	45.01	46.47	47.43	47.50	47.30	47.59	48.30	49.56
Feed	27.50	25.80	24.38	24.52	25.00	25.58	26.54	27.42	28.22	29.31	30.13
Purchased Livestock	11.25	12.35	13.42	14.62	15.51	15.83	14.84	13.67	13.06	12.55	12.90
Seed	5.90	5.91	5.83	5.87	5.96	6.02	6.12	6.21	6.30	6.43	6.53
Manufactured Inputs	25.23	24.72	24.67	24.99	25.48	25.98	26.68	27.32	27.92	28.62	29.27
Fertilizer, Lime	11.01	10.72	10.70	10.87	11.11	11.28	11.57	11.80	12.03	12.30	12.53
Petroleum Fuel, Oils	6.14	5.89	5.84	5.98	6.15	6.34	6.56	6.78	6.97	7.18	7.39
Electricity	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pesticides	8.08	8.12	8.13	8.14	8.21	8.36	8.55	8.74	8.93	9.14	9.35
Interest Charges	12.86	11.71	11.39	11.31	11.51	11.79	12.12	12.35	12.46	12.61	12.74
Short-Term Interest	6.63	6.06	5.91	5.87	5.96	6.10	6.26	6.38	6.43	6.50	6.57
Real Estate Interest	6.23	5.65	5.49	5.45	5.54	5.69	5.85	5.97	6.03	6.10	6.17
Other Operating Expenses	60.73	60.73	61.47	62.25	63.14	64.21	65.42	66.54	67.50	68.59	69.70
Repair, Operation of Capital Items	9.56	9.42	9.49	9.55	9.65	9.77	9.93	10.07	10.18	10.32	10.46
Contract, Hired Labor	16.52	16.48	16.63	16.77	16.96	17.25	17.59	17.90	18.14	18.43	18.74
Machine Hire											
Custom Work	4.98	4.92	4.93	4.98	5.05	5.12	5.20	5.27	5.34	5.42	5.50
Marketing, Storage, and Transportation	7.33	7.29	7.39	7.49	7.58	7.70	7.80	7.89	7.96	8.05	8.15
Miscellaneous	22.34	22.63	23.03	23.46	23.90	24.37	24.89	25.40	25.87	26.37	26.85
Other Overhead Expenses	37.89	37.28	37.45	37.77	38.11	38.45	38.88	39.25	39.72	40.26	40.79
Capital Consumption	19.34	19.08	19.16	19.23	19.35	19.45	19.60	19.73	19.86	20.01	20.17
Property Taxes	7.03	7.08	7.20	7.28	7.39	7.48	7.58	7.66	7.76	7.90	8.07
Rent to Non-Operators	11.52	11.12	11.10	11.26	11.37	11.52	11.70	11.87	12.10	12.34	12.55
Production Expenses	181.35	178.50	178.63	181.33	184.71	187.86	190.59	192.76	195.19	198.37	202.07
Noncash Expenses	16.41	16.15	16.23	16.30	16.42	16.52	16.67	16.80	16.93	17.08	17.24
Labor Perquisites	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
Net Cap Consumption	15.96	15.70	15.78	15.85	15.97	16.07	16.22	16.35	16.48	16.63	16.79
Op Dwelling Expenses	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20	4.20
Cash Expenses	160.74	158.15	158.20	160.83	164.09	167.13	169.73	171.77	174.05	177.08	180.62

U.S. Net Farm Income

- **Gross cash income** is projected to fall by \$4 billion in 1997 to \$213.5 billion. Lower crop receipts coupled with lower government payments bring about the majority of the decline. Gross income recovers substantially by 2001 as livestock receipts expand. Continued growth in the later years is fueled by higher crop receipts.
- Projected declines in crop prices push the **value of inventory change** down to \$230 million for 1997, a \$3.6 billion decline from the 1996 level. The value of inventory change expands to \$1.5 billion by 2002, and declines to \$730 million by 2006.
- **Net cash income** is projected to decline to \$55.3 billion in 1997 as lower gross cash income more than offsets the lower cash expenses. Net cash income expands to \$62.5 billion by 2001 with the increase driven largely by growth in livestock receipts. Net cash income dips to \$58.3 billion in 2003 and then recovers due to growth in crop receipts.
- Accounting for the value of inventory change, nonmoney income, and total expenses, **net farm income** is projected to decline to \$45.6 billion in 1997. Much of the change from the 1996 level can be accounted for by the substantial decline in the value of inventory change. After 1997, the movement in net farm income mirrors that of net cash income, reaching \$54 billion by 2006.

U.S. Farm Income Statistics

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
	(Billion Dollars)										
1. Farm Receipts	208.92	206.28	206.15	211.48	217.47	223.43	223.72	223.89	227.55	232.36	237.09
Crops	105.13	103.00	100.56	102.57	104.41	107.24	109.87	112.71	115.64	119.10	122.53
Livestock	92.92	92.33	94.49	97.64	101.60	104.53	102.00	99.14	99.70	100.86	101.97
Farm-Related /a	10.87	10.95	11.09	11.27	11.46	11.65	11.85	12.03	12.21	12.40	12.58
2. Government Payments	8.56	7.20	7.76	7.47	7.01	6.23	6.20	6.21	6.19	6.19	6.20
3. Gross Cash Income (1 + 2)	217.48	213.48	213.90	218.94	224.48	229.66	229.91	230.09	233.74	238.55	243.29
4. Nonmoney Income	10.48	10.38	10.67	11.08	11.43	11.68	11.54	11.38	11.53	11.76	12.01
5. Value of Inventory Change	3.80	0.23	0.35	0.30	0.87	1.31	1.51	1.20	1.13	0.92	0.73
6. Gross Farm Income (3 + 4 + 5)	231.75	224.10	224.92	230.33	236.78	242.65	242.96	242.66	246.40	251.23	256.03
7. Cash Expenses /b	160.74	158.15	158.20	160.83	164.09	167.13	169.73	171.77	174.05	177.08	180.62
8. Total Expenses	181.35	178.50	178.63	181.33	184.71	187.86	190.59	192.76	195.19	198.37	202.07
9. Net Cash Income (3 - 7)	56.74	55.33	55.71	58.11	60.39	62.53	60.18	58.32	59.69	61.47	62.67
10. Realized Net Farm Inc (3 + 4 - 8)	46.60	45.36	45.95	48.69	51.20	53.49	50.86	48.70	50.09	51.94	53.23
11. Net Farm Income (6 - 8)	50.40	45.60	46.29	49.00	52.06	54.80	52.37	49.90	51.22	52.86	53.96
Deflated (1987 \$) /c	37.96	33.56	33.23	34.29	35.52	36.43	33.93	31.50	31.50	31.66	31.48

a/ Income from machine hire, custom work, sales of forest products, and other miscellaneous cash sources.

b/ Excludes capital consumption, perquisites to hired labor, and farm household expenses.

c/ Deflated by the GNP price deflator, 1987=1

