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Feed

Situation and Outlook Yearbook

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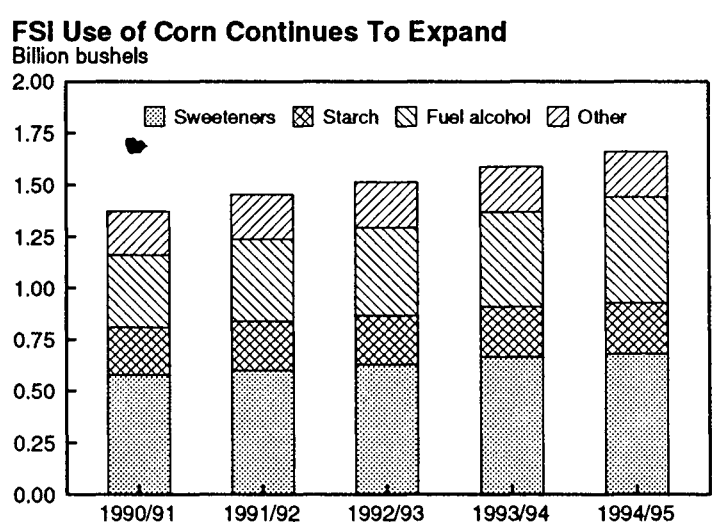

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Contents

Summary 3
Feed Grain Supply and Use 4
Corn 5
Sorghum 6
Barley 7
Oats 8
Hay Situation and Outlook 10
Feed Demand 11
Food Seed and Industrial Use of Corn 13
Transportation Update 15
World Coarse Grain Outlook 19
Special Article
China's Corn Sector: Future Competitor, Market, or Both? 23
List of Tables and Figures 28
List of Appendix Tables 29

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Summary

Record Corn Crop Forecast

Feed grain production in 1994/95 is forecast up 45 percent to 271.7 million tons, led by a record corn crop. Sorghum and oats production are also up from 1993/94, but remain well below record highs. Feed grain supplies are forecast up 19 percent as the increased production is partially offset by the lowest carryin stocks since the mid-1970's and reduced imports.

Feed grain use is forecast up 10 percent with a large rebound in both feed and residual use and exports. While 1994/95 ending stocks are expected to be nearly double the carryin, they will remain well below 1992/93.

USDA is forecasting a record corn crop of 9.6 billion bushels, 121 million bushels above the previous record set in 1992, and a stunning recovery from last year's depressed harvest. Harvested acres are up 14 percent, while yields are forecast to increase a third to a record 133.8 bushels per acre. The large crop, lower prices, and reduced supplies of the other feed grains are expected to lead to a sharp rise in use to a record 8.6 billion bushels. Season-average farm prices for corn are forecast at $1.90-2.30 per bushel, down from $2.50 in 1993/94.

Among the other feed grains, sorghum and oats production are up 13 and 11 percent, respectively, while barley output is down for the third straight year to the lowest since 1988/89. Record low carryin stocks will reduce sorghum supplies and use in 1994/95. Supply and use of barley and oats are also expected to decline, in part because of lower imports.

Global production of coarse grains is expected to rise in 1994/95, largely due to the record U.S. corn crop. Foreign output is expected to drop 2 percent, led by reductions for the former Soviet Union, the EU, and Australia. Although global consumption is projected to rebound to a record, production will be higher, leading to an increase in stocks. However, the stocks-to-use ratio will remain relatively low at 15.8 percent.

U.S. corn exports are forecast to rise sharply in 1994/95 because of expanding imports and reduced competition, not only from competing corn exporters but also from other coarse grains and wheat for feeding. Corn exports by China, the leading competitor, are forecast to decline in 1994/95 in the face of rapid increases in domestic demand. Future exports by China will hinge on a number of factors, including productivity gains, increases in demand for meat and feed grains, stockholding, and agricultural policies.

U.S. Feed Grain Summary

Year 1/	90/91	91/92	92/93	93/94	94/95	Record prod. 2/ 92/93	Lowest stocks 2/ 75/76
TOTAL FEED GRAINS	Million acres					Million acres	
Planted	103.4	104.6	108.4	99.6	102.8	108.4	122.6
Harvested	89.5	91.9	96.1	83.1	91.8	96.1	104.7
Yield (ton/ac)	2.57	2.38	2.89	2.26	2.96	2.89	1.77
	Million tons					Million tons	
Beg. stocks	45.5	47.7	34.0	63.1	27.4	34.0	21.1
Production	230.5	218.4	277.5	187.3	271.7	277.5	185.1
Supply	277.3	268.2	312.7	254.0	301.7	312.7	206.5
Dom. Disp.	178.1	184.5	198.6	186.4	201.3	198.6	133.7
FSI	40.7	42.8	44.1	46.2	48.0	44.1	17.9
Feed/res.	137.5	141.7	154.4	140.2	153.3	154.4	115.8
Exports	51.5	49.7	51.1	40.2	48.1	51.1	48.8
End. stocks	47.7	34.0	63.1	27.4	52.4	63.1	23.9

SECTOR	Corn		Sorghum		Barley		Oats	
Year 1/	93/94	94/95	93/94	94/95	93/94	94/95	93/94	94/95
	Million acres							
Planted	73.3	78.8	10.5	10.2	7.8	7.2	7.9	6.6
Harvested	63.0	71.8	9.5	9.3	6.8	6.7	3.8	4.0
Yield (bu/ac)	100.7	133.8	59.9	68.9	58.9	56.2	54.4	57.2
	Million bushels							
Beg. stocks	2,113	850	175	48	151	139	113	106
Production	6,344	9,602	568	640	400	375	206	230
Supply	8,478	10,457	743	688	623	579	426	415
Dom. disp.	6,303	7,010	495	408	418	390	318	300
FSI	1,588	1,660	8	8	175	175	125	125
Feed/res.	4,715	5,350	488	400	243	215	193	175
Exports	1,325	1,625	200	215	66	60	3	2
End. stocks	850	1,822	48	65	139	129	106	113
Stocks-use ratio, %	11.1	21.1	6.8	10.4	28.7	28.7	32.9	37.5
Avg. farm price, $/bu	2.50	1.90-2.30	2.31	1.70-2.10	1.99	1.85-2.15	1.36	1.15-1.35

1/ Corn and sorghum, September/August; barley and oats, June/May.
2/ Based on data since 1975/76.

Feed Grain Supplies To Rebound

Feed grain supplies are forecast at 301.7 million tons for 1994/95, up 19 percent from 1993/94. Total feed grain use is expected to rise 10 percent, while carryout stocks are forecast to nearly double.

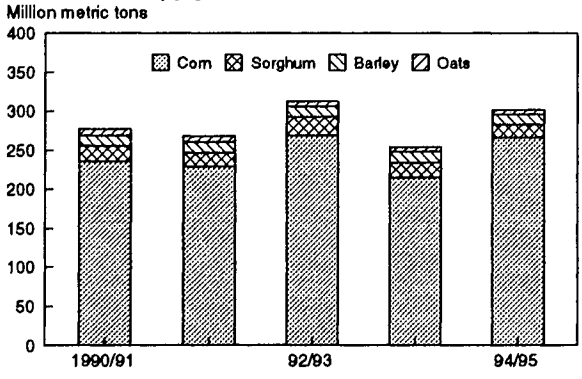
Despite Low Carryin Stocks, Huge Crop To Raise Supplies in 1994/95

Feed grain production in 1994/95 is forecast at 271.7 million tons, up 45 percent from last year. A record corn crop will account for most of this dramatic turnaround, but sorghum and oats production are also up. However, the total feed grain crop is expected to be only the third highest on record, because output of the other feed grains is well below that of 1992/93, when total production was record large.

Feed grain plantings were up in 1994/95, and a larger share of planted acreage is expected to be harvested for grain. Growing conditions were generally very favorable, leading to a sharp increase in yields to a record 2.96 tons per acre.

Feed grain supplies are forecast to increase nearly 48 million tons to 301.7 million on the strength of the large corn crop. Carryin stocks, at just 27.4 million tons, were the lowest since 1976/77. Even though total use in 1993/94 was down 23 million tons from a year earlier, the sharp fall in the 1993 crop led to a 35-million-ton drawdown in feed grain stocks during the year.

Figure 1
Feed Grain Supply To Recover in 1994/95
Million metric tons



Lower Prices Will Boost Use

Feed grain use in 1994/95 is forecast to increase 10 percent to 249.3 million tons, slightly below use in 1992/93. Large rebounds are expected in both feed use and exports, while food, seed, and industrial (FSI) use continues to expand more steadily.

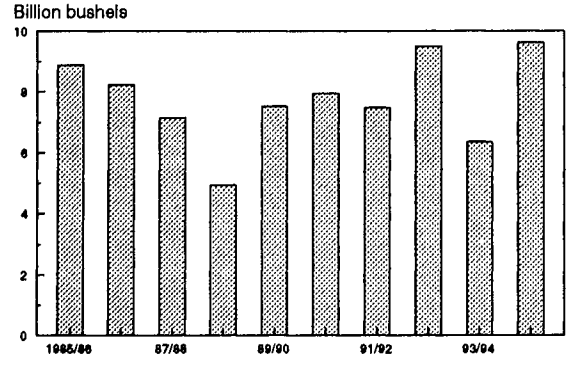
A sharp drop in prices, especially for corn and sorghum, and increased increased feed grain supplies will stimulate use. Feed and residual use of feed grains is forecast to increase more than 9 percent for the year (September-August for corn and sorghum, June-May for barley and oats). This reflects a reduction in wheat feeding, increases in the number of grain consuming animal units, and gains in feed per animal units.

Lower prices and more abundant supplies also will make exports more competitive. Feed grain exports are forecast to rise nearly 20 percent in 1994/95, mainly because of larger global imports of corn and a higher U.S. market share.

Corn ARP To Increase in 1995/96

On September 30, Secretary Espy announced the preliminary set-aside requirements for the 1995/96 feed grain program. Only corn will change, with the acreage reduction program (ARP) set at 7.5 percent, up from zero in 1994/95. The set-aside requirements for barley, sorghum, and oats will remain at zero.

Figure 2
Corn Production
Billion bushels



Record Corn Crop To Replenish Supplies

The U.S. corn harvest is forecast at 9.6 billion bushels, up 51 percent from the disastrous 1993 crop. Abundant supplies and lower prices will stimulate use. Stocks will be rebuilt, but they are expected to stay below 1992/93's ending level.

Record Yields and Higher Acreage Boost Output

Despite the lowest carryin since 1976/77, the corn supply in 1994/95 is forecast to be up 23 percent. Based on conditions as of October 1, USDA forecast the 1994/95 corn crop at 9.6 billion bushels, up 121 million bushels from the 1992/93 record. This marks a stunning recovery from the depressed 1993 harvest, when prime growing areas of the Midwest suffered from too much moisture and widespread flooding, and the Southeast was hit by drought.

Planted acreage for the 1994 crop increased 7 percent due to a reduction in the corn ARP from 10 percent to zero, much better planting conditions, and strong prices. An even stronger rebound in harvested acres is expected, up 14 percent to 71.8 million, as better growing conditions have meant little abandonment of planted acres. Most of the difference between planted and harvested area this year is corn cut for silage.

Average national yields are forecast at a record 133.8 bushels per acre. This surpasses the previous high of 131.4 reached in 1992/93. Early planting and generally excellent weather were very favorable for yields. Among the 17 major corn producing States, record yields are indicated for Iowa, Minnesota, Nebraska, Wisconsin, South Dakota, and Georgia. In addition, the quality of this year's corn reportedly is markedly better than the previous 2 years, with higher test weights and lower moisture content.

Record Corn Use Expected

Corn use is forecast to increase 13 percent to a record 8.635 billion bushels. The largest gains are expected in feed and residual use, followed by exports, and FSI. The potential rise in exports reflects the improved competitive position of U.S. corn because of the excellent U.S. crop and reduced exports by China and the EU, along with higher import demand.

Figure 3
Corn Area and Yield

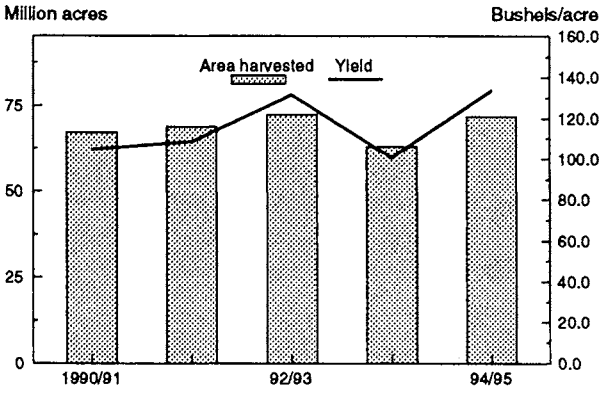
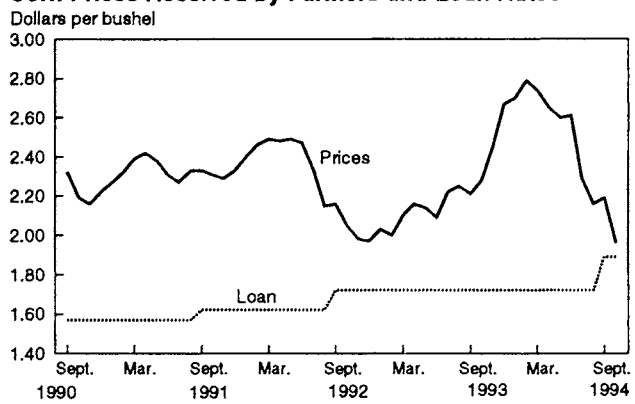


Figure 4
Corn Prices Received by Farmers and Loan Rates



Stocks To Rise, Prices To Decline

The huge crop will result in some rebuilding of stocks, which fell to very low levels by the end of 1993/94. Although ending stocks of corn for 1994/95 are expected to more than double to 1.822 billion bushels, they will remain below 1992/93's carryout. The stocks-to-use ratio is estimated at 21.1 percent, up sharply from 11.1 percent the year before.

Corn prices have generally been declining since late June, based on expectations of a good crop. There was some strengthening of prices in late August and early September, but since then prices have continued to fall in line with rising crop forecasts. Cash prices in Central Illinois for the week of October 17-21 averaged $1.89 per bushel, compared with $2.33 for the same period a year earlier. Season average farm prices are forecast at $1.90-2.30 per bushel, compared with $2.50 in 1993/94, because of the larger supplies.

Disappearance in 1993/94 Lowest in 5 Years

Corn stocks on September 1, 1994, were reported at 850 million bushels, down 60 percent from a year earlier. These were the lowest stocks since 1975/76.

Total corn use in 1993/94 is estimated at 7.628 billion bushels, the lowest since 1988/89. Sharp declines occurred in feed and residual use and exports in response to tight supplies and higher prices, although FSI use was up, continuing its long upward trend. The reduction in corn feed and residual use was partly offset by higher feeding of the other feed grains and wheat.

Grain Sorghum Production Up 13 Percent

Despite gains in output, supplies will shrink with record low carryin. The lower supplies will mean reduced use.

Higher Yields To Raise Production

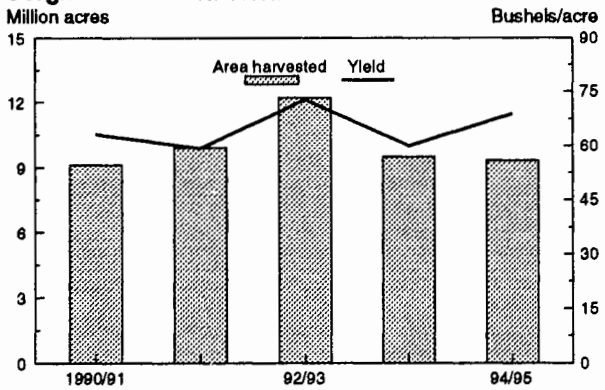
Production of grain sorghum in 1994/95 is forecast at 640 million bushels, based on October 1 conditions. This is 13 percent higher than the 1993 crop of 568 million bushels. The biggest year-to-year increase is indicated in Nebraska, with Kansas also registering a large increase. Kansas will be the State producing the most sorghum this year, surpassing Texas for the first time since 1990.

Planted and harvested acreage are down slightly from 1993, but higher forecast yields are more than offsetting. U.S. yields are forecast at 68.9 bushels per acre, up from 59.9 in 1993/94, and the third highest on record. Unlike corn, no record sorghum yields are forecast for any of the major producing States.

Low Stocks To Tighten Supplies

On September 1, 1994, reported sorghum stocks were a record low 47.6 million bushels, down 127 million from a year earlier, and below even the 53 million of 1991. Because of the sharp drop in stocks, the 1994/95 sorghum supply is expected to decline 7 percent.

Figure 5
Sorghum Area and Yield



Despite the lower supplies, sorghum prices will follow corn prices down and the season average farm price is forecast at $1.70-2.10 per bushel, down from $2.31 in 1993/94.

Lower supplies will result in a drop in total use, forecast down about 10 percent in 1994/95, all in feed and residual use. Sorghum feeding will fall with the rebound in corn supplies. Sorghum exports are forecast to expand slightly, despite tight supplies, because of developments in the world market. Although imports by Mexico are forecast to continue their decline, they will remain large. Because export competition will be reduced due to drought in Australia and limited supplies in Argentina, Japan will have to import more sorghum from the United States. Unless there is a dramatic increase in rainfall in Australia in coming weeks, Australia will have to import substantial amounts of feed grains. The Australian government has already approved imports of 120,000 tons of sorghum, which is likely to come from the United States.

Lower Exports Pulled Down Use in 1993/94

Although sorghum use in 1993/94 declined about 9 percent, ending stocks dropped to a record low. A small rise in feed and residual use was more than outweighed by lower exports. Exports declined 75 million bushels to 202 million, the lowest since 1986/87. The key change was a reduction in sorghum buying by Mexico related to the implementation of NAFTA. Mexico began to run down large domestic feed grain stocks and also purchased more corn to satisfy import requirements.

Barley Production Declines for Third Straight Year

Shrinking area and lower yields reduce crop 6 percent. Imports forecast to retreat from 1993/94 record.

Barley Output Lowest Since 1988/89

The 1994 barley crop is estimated at 375 million bushels, down from 400 million the year before. U.S. yields are estimated at 56.2 bushels per acre, compared with 58.9 in 1993. Plantings were off about 8 percent from a year earlier, but more favorable growing and harvest conditions, especially in North Dakota, resulted in a larger share being harvested for grain. Thus, harvested acres for grain were down only 2 percent from 1993, but were still the lowest since 1934.

Production rose substantially in North Dakota, with improved yields accounting for all of the 12-percent increase in the crop. Quality was generally reported to be good, but there were still scattered problems with head scab. In the other major barley States in the Northern Plains, Minnesota and South Dakota, production declined 20 and 14 percent, respectively.

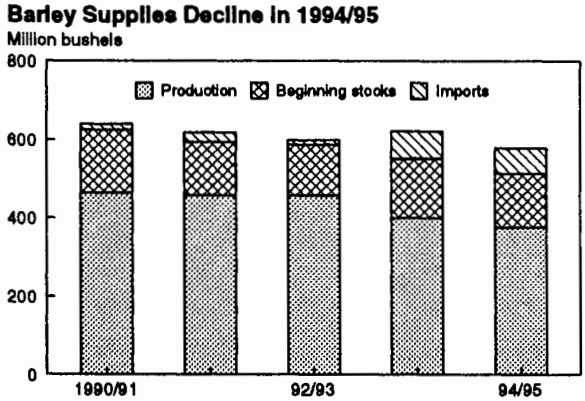
In the main western growing States, production was down. Hot, dry conditions tended to reduce output, particularly in Montana, where the yield declined 24 percent from the record of 1993. However, Montana's 1994 yield was down only 8 percent from the average of the previous 5 years, and was well above the disastrous drought year of 1988.

Barley Supply To Decline in 1994/95

Reflecting the lower crop, as well as small drops in carryin stocks and forecast imports, the barley supply is expected to fall 7 percent. This would be the smallest supply since 1980/81.

The season average farm price for all barley is forecast at $1.85-2.15 per bushel. Despite tighter supplies, no major increase is expected from the 1993/94 price of $1.99. The record corn crop will tend to hold down prices for the other feed grains, including feed barley. For the first 4 months of the marketing year, the simple average of the farm price for all barley was $2.01 per bushel, up from $1.94 a year earlier.

Figure 6
Barley Supplies Decline in 1994/95
Million bushels



Malting barley has averaged $2.26, while feed barley has averaged $1.80, up 2 cents and 7 cents, respectively.

Smaller supplies will result in lower domestic use and exports in 1994/95. Although feed and residual use was up 27 percent in the first quarter of the new crop year, it is expected to fall sharply as new-crop corn becomes available. Tight supplies of old-crop corn and continued large imports of barley pushed up first quarter-feed and residual use. For the entire year, however, barley feed and residual use is forecast to decline

USDA Announces Barley Program Adjustment and Proposes End-Use Certificates

USDA's Commodity Credit Corporation recently announced that it intends to reduce the assessments on 1994 and 1995-crop malting barley to zero percent. The intention to reduce the assessment has been made since CCC has determined that the costs associated with levying the assessment exceed the revenue generated by the assessment. The assessment was 5 percent for the 1991 and 1992 crops of barley. In March 1994, the assessment was reduced to 2.5 percent for the 1993-1995 crops. Assessments are normally levied in December following the harvest of the crop.

In addition, USDA is asking for comments on proposed regulations that would govern an end-use certificate program. The NAFTA Implementation Act requires that end-use certificates be established for wheat and barley imported into the United States from any foreign country that requires end-use certificates for imports from the United States. Currently, Canada is the only such country.

To ensure that foreign-produced commodities do not benefit from U.S. export programs, the proposed regulations would require: 1) importers and subsequent buyers of Canadian wheat and barley to store imported grain separately from U.S.-produced grain until delivered to the end-user, 2) importers to submit an End-use Certificate for Grain to ASCS in Kansas City within 10 days from the date of entry, and 3) importers, subsequent buyers, and end-users of Canadian wheat and barley to file quarterly reports to ASCS in Kansas City. These proposed regulations would allow the importation of Canadian wheat and barley for purposes of resale by the importer. End-uses of the imported wheat and barley would be milling for animal feed, milling for human consumption, manufacturing, brewing or malting, distilling or other.

12 percent. FSI use is forecast to be unchanged, after small gains in malting use were estimated for 1993/94.

Exports are forecast at 60 million bushels, down 6 million from 1993/94. World market prices for barley have risen considerably in recent weeks due to tighter exportable supplies and probably some impact from rising world wheat prices. While this will mean lower expenditures on export subsidies, the rising world prices, especially relative to corn, will constrain import demand.

Imports Forecast To Slip, But Remain High

Barley imports are forecast at 65 million bushels in 1994/95, down 6 million from the record high reached the year before. Virtually all these purchases came from Canada. A reported 71 percent of the imports in 1993/94 were feed barley, well above the pattern of previous years when a greater share of imports were for malting. In 1987-92, the average share of imports reported for malting was 59 percent. However, even with the surge in feed barley imports, the actual volume of malting barley imported in 1993/94 increased threefold over the prevous year to 21 million bushels.

The decline in forecast imports in 1994/95 reflects increased feed supplies in the United States and tightening barley supplies in Canada. Imports of malting barley are likely to remain high as maltsters apparently choose to diversify suppliers. There are reports that Canadian farmers planted considerable acreage to U.S. malting barley varieties this year. In addition, the weak Canadian currency will continue to make some purchases of feed barley from Canada attractive. However, tight supplies of feed barley in other foreign exporting countries, particularly Australia, mean that Canada will likely ship more to countries other than the United States.

Oats Production Increased 11 Percent in 1994

Production increased sharply, largely because of a rebound in Iowa. Supplies are down as imports are forecast to decline from the 1993/94 record.

Production Rises

U.S. oats production totaled 230 million bushels in 1994, up from 206 million in 1993. In addition to larger harvested acreage, yields were up 5 percent from 1993 to 57.2 bushels per acre. Higher yields were reported in 21 States and lower yields in 11 States. Among the States producing the most oats-- North Dakota, South Dakota, Iowa, Wisconsin, and Minnesota--only North Dakota had lower yields than last year.

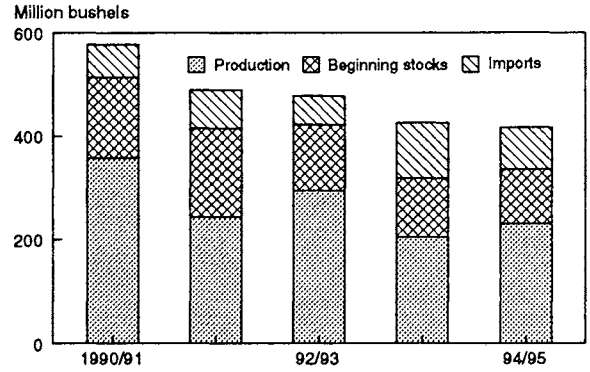
Iowa posted the biggest year-to-year change and accounted for 76 percent of the rise in the total U.S. oats crop. Iowa's production was almost triple that of a year earlier, as yields were up more than 50 percent and harvested acres nearly doubled. Planted acres were down almost a third from 1993, but 72 percent was harvested for grain. This stands in sharp contrast to the year before, when flooding, prolonged wet conditions, and a 10 percent ARP for corn resulted in only 24 percent of plantings harvested.

Supply and Use To Fall

Even with the rebound in production in 1994, total oats supply is expected to be down 3 percent from 426 million bushels in 1993/94. This reflects a slightly lower carryin and lower forecast imports. Lower domestic prices, the larger and, reportedly, better quality U.S. oats crop, and the record U.S. corn crop are expected to discourage imports.

In 1994/95, oats use is forecast to decline 6 percent to 302 million bushels, only slightly higher than the recent low of 294 million of 1988/89. FSI use is expected to be about the same as last year with feed and residual use and exports expected down. The large corn crop in 1994 will help replace the feed use of oats.

Figure 7
Oats Supplies Decline in 1994/95



In June-September 1994, the simple average of prices received by farmers was $1.23, compared with $1.36 a year earlier. Oats prices for 1994/95 are expected to average $1.15-$1.35, compared with $1.36 in 1993/94.

Imports Forecast To Retreat from the 1993/94 High

In June-August 1994, oats imports totaled 20 million bushels, up 21 percent from 1993. In spite of strong first quarter-results, oats imports for the year are expected to be down 25 percent to 80 million bushels.

In 1993/94, oats imports almost doubled to a record 107 million bushels. Canada supplied 55 percent, followed by Finland and Sweden. With a larger crop, Canada is likely to repeat as the largest supplier in 1994/95. There are still some questions about Scandinavian oats exports after January 1995 because of the planned accession of Finland and Sweden into the EU. The EU has not previously exported oats. While the

EU has agreed to provide export restitutions for oats, it has not yet announced if the United States would be an eligible destination. Without export subsidies, oats exports by Finland and Sweden would not be competitive.

Although imports helped offset the decline in production, supplies in 1993/94 were down 11 percent while use was down 12 percent. FSI use, primarily food, stayed the same as in 1992/93, but feed and residual use was down nearly 18 percent. Exports in 1993/94 totaled 3 million bushels, down from 5.7 million in 1992/93.

The Oats Sector's Special Features

The difference between planted and harvested oats area is generally much wider than other grains because the crop is planted for many purposes other than to produce grain. In some areas, especially in the South, oats is used for pasture. Oats is widely used as a cover crop to protect the soil and as a nurse crop to protect forage crops when they first start growing.

A large share of oats is planted on set-aside land to comply with the farm program's requirement for a conserving use to protect against erosion. With the zero ARP in effect in 1994, plantings as a conserving use were down sharply from 1993, when there was a 10 percent corn ARP. In fact, the share of oats harvested for grain in 1994 was the highest since 1985. In addition, many areas had much more favorable weather during the growing season and at harvest in 1994. Thus, while planted acres were down 16 percent from 1993, harvested acres were up 6 percent.

Similarly, use and pricing of oats tend to differ from other feed grains. Except for premium markets for oats for human use and for feeding racehorses, a large share of oats are fed on the farm where they are produced. Cattle and dairy producers using oats for a nurse crop for their pasture and hay acreage have animals that can be fed oats. Also, they may harvest the oats as silage or haylage instead of harvesting it for grain. Even if the oats are harvested for grain, they probably are fed on the farm or nearby unless they are of premium quality. Oats used for food generally are heavy white oats and of the best quality millers can find from domestic or foreign sources. The oats fed to racehorses also are of the best quality.

Oat prices tend to follow the prices of competing feed grains because feeders will shift among grains if the feeding value gets out of line. Based on a 32-pound bushel of oats and 56-pound bushel of corn, the total digestible nutrients (TDN) on a dry matter basis would indicate that it takes more than 3 bushels of oats to equal 1 bushel of corn (oats--89 percent dry matter, 48 percent TDN; corn--88 percent dry matter, 87 percent TDN). Thus, with prices received by farmers for corn at $2.50 a bushel in 1993/94, the feeding value equivalent for oats would be $.80 rather than the actual price of $1.36 per bushel received for oats. The prices received for oats would suggest that higher quality oats are entering the market and are being purchased for speciality uses. Also, many racehorse trainers apparently feel that oats have an unknown ingredient that makes the horses perform better.

Record Yields in 1994 Boosted Hay Production to Its Highest Since 1986

Higher yields more than outweigh slight drop in harvested area of alfalfa and alfalfa mixtures.

Hay production in 1994 is forecast up 3 percent from last year to 153.9 million short tons. Area harvested totaled 60.3 million acres, 83,000 acres fewer than last year. Most of the acreage decline was in alfalfa and alfalfa mixtures. But the lower area was more than offset by a forecast gain of 4 percent in yields to a record 2.55 tons per acre. The previous record was 2.5 tons per acre in 1992. The biggest yield increase occurred in the all other hay category, which was up 5 percent from last year. Yields of alfalfa and alfalfa mixtures were up nearly 2 percent.

Total hay supply for the 1994/95 marketing year is 177 million tons, up nearly 4 percent from last year. However, with roughage consuming animal units (RCAU's) estimated at 80.7 million, the hay supply per RCAU is 2.18 tons, the lowest since 1989/90. Over the last 7 years, the highest disappearance per RCAU was 2.04 tons in 1992/93. Thus, total hay supplies appear adequate. However, a winter with excessive snow cover that forces extra hay feeding could cause shortages in some areas.

Hay is made in all States and in general, is not hauled great distances before consumption. Thus, local production is important for livestock producers, many of whom produce their own hay and other roughages. The eastern United States has more hay than last year, except in New Hampshire, where output is down 9 percent. Michigan, Illinois, and Indiana have lower production than last year, probably caused by dry weather early in the year. But many cattle producers and dairymen in these States also produce corn silage. Corn for grain yields would suggest there will be a big silage crop. Other States with lower hay production include Colorado, Idaho, Kansas, Mississippi, Missouri, Montana, Nevada, South Dakota, North Dakota, Utah, Washington, and Wyoming.

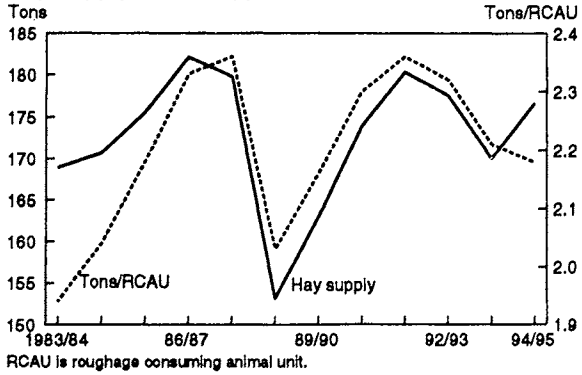
Among the top five dairy producing States, production of alfalfa and alfalfa hay mixtures was greater than a year ago. Among the 21 monthly reporting dairy States, only five reported lower alfalfa or alfalfa hay mixture production--Idaho, Illinois, Michigan, Missouri, and Tennessee. Dairy producers in these States may have to fill in with other hays, silage or concentrates.

Prices To Stay Strong

Prices received by farmers during May-September 1994 averaged $87.34 per ton, up $7.46 from last year. Prices for alfalfa and alfalfa mixtures have also been up, averaging $93.94 per ton, vs. $85.42 in 1993. Prices have been stronger because hay supplies are relatively tight. Pasture and range conditions have been below average in the West. In some of the driest spots, some cattle may have been fed supplemental hay for reduced pasture.

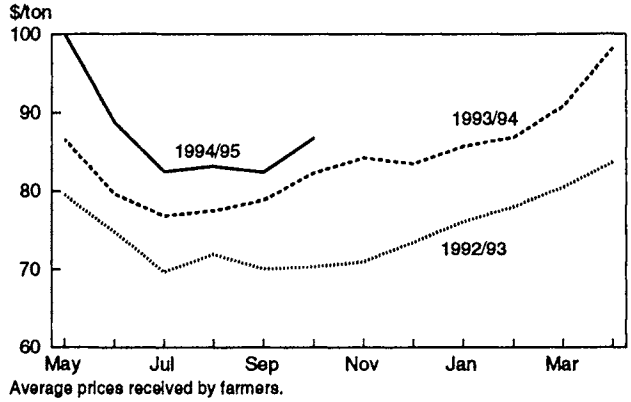
Prices are also strong because hay exports have been up from a year earlier. During May-August 1994, alfalfa hay cubes, pellets, hay, and other hay exports totaled 528,000 metric tons, up from 399,000 in 1993. In 1994, alfalfa accounted for 37 percent of the total.

Figure 8
Hay Supply and Disappearance Per RCAU



RCAU is roughage consuming animal unit.

Figure 9
Hay Farm Prices



Average prices received by farmers.

Feed and Residual Use in 1994/95 Projected To Rise 4 Percent

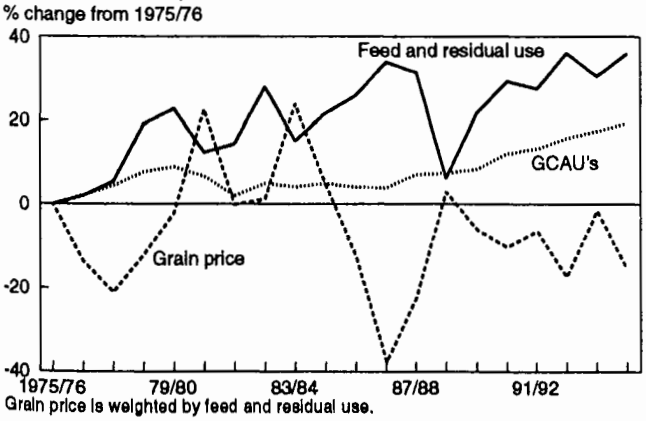
Tempered by strong prices and low supplies in 1993/94, feed and residual use declined 4 percent.

Feed and residual use (September-August marketing year) of the four feed grains in 1994/95 is projected to increase 8 percent from the 141.3 million metric tons for 1993/94, which were down 8 percent from 1992/93. Wheat feed and residual use in 1993/94 was more than double a year earlier on a September-August basis, but will drop sharply in 1994/95. The total feed grains plus wheat feed and residual is expected to be up 4 percent in 1994/95 to 157 million metric tons.

The index of grain consuming animal units (GCAU's) in 1994/95 is projected to increase nearly 2 percent from 84.1 million units in 1993/94, largely because of increased numbers of hogs and poultry produced in 1994/95. Higher feed prices in 1993/94 were expected to slow increases in animal numbers, but the only declines have been in the dairy sector, which is adjusting to other factors. The 1994/95 feed and residual use of the four feed grains plus wheat per GCAU is expected to rise nearly 3 percent to 1.84 tons. The feed per GCAU in 1993/94 was down 6 percent from the 1.9 tons in 1992/93, when there was a record feed grain crop and feed prices were lower.

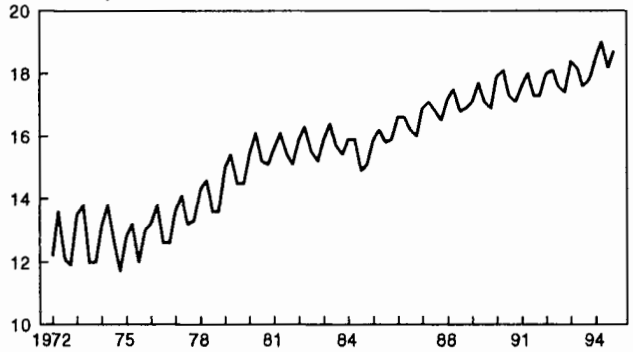
The numbers of dairy cows in the first three calendar quarters of 1994 were down from the year earlier, but the rate of decline is slacking: January-March was 2 percent below last year, April-May, 1 percent below, and July-September nearly the same. With feed prices declining, dairy cow numbers may only be down fractionally in 1994/95. In the third quarter of 1994, the number of dairy cows was 19,000 below last year, but milk production per cow was up 2.9 percent, raising milk production 2.7 percent above last year.

Figure 10
GCAU's, Prices, and Feed & Res. Use of Grains
% change from 1975/76



Grain price is weighted by feed and residual use.

Figure 11
Dairy Cow Feeding Rate
Lbs./cow/day



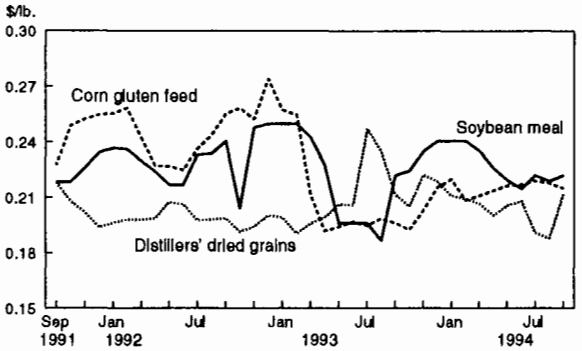
Amount of grains and other concentrates fed on first day of quarter.

Grain and other concentrates reported fed to dairy cows on October 1, 1994, were up 5.1 percent from last year. By retaining their best cows and keeping feeding rates high, while possibly using bST, producers have kept milk production nearly the same as last year. If these practices continue as expected, feed demand will likely remain high, probably higher than reflected by the calculated GCAU's.

Cattle on feed in the 13 quarterly reporting States were more than 5 percent below last year on October 1, and are expected to remain below the year earlier. Numbers of cattle placed on feed during the 1994/95 grain marketing year are expected to be above last year. During the 1993/94 grain marketing year, low cattle prices and high feed costs resulted in losses for cattle feeders. With slowed marketings and better feedlot performance, dressed weights were 3 percent above 1992/93. Fed cattle marketings are expected to remain above 1993/94 levels throughout 1994/95. In 1994/95, dressed weights are expected to continue to average near a year earlier. Thus, with increased placements and continued heavy weights, feed demand in 1994/95 is expected to remain strong, even with a decline in numbers on feed.

Even with higher feed costs in 1993/94, pig crops remained relatively large. In 1994/95, current pig crops and farrowing intentions suggest feed use may be stronger than a year earlier. The December 1993-May 1994 pig crop was 3 percent above a year earlier. In June-August 1994, the pig crop was up 6 percent from a year earlier. Farrowing intentions for September-November were reported on September 1 to be up 5 percent and intentions for December-February 1995 up 4 percent, continuing the expansion in hog numbers. Hog prices have been weak with the expected large increase in slaughter.

Figure 12
Protein Feed Prices



Converted to price per pound of protein.

However, given lower feed costs, producers appear unlikely to begin to trim their intentions until late in 1995 at the earliest.

Production by the poultry sector was up from a year earlier in 1993/94 and is expected to be up in 1994/95. The egg sector in 1994/95 will likely be up only slightly. Table-egg producers are expected to see demand increase about 1 percent per year, keeping pace with increases in population. However, per capita egg consumption may decline by nearly one egg. Hatchery supply flocks will likely increase numbers to keep pace with the expanding demands for broilers, but hen numbers relative to table-egg layers are small.

Feed use by the broiler sector is expected to continue strong. Broiler production in 1993/94 likely rose 7 percent from 1992/93, as broiler producers responded to stronger prices. Foreign markets are taking the lower-priced cuts, and new fast food stores are increasing sales of whole birds. In 1994/95, broiler production will likely increase 4 to 5 percent from the high level of 1993/94. Prices are likely to be lower than last year with increased supplies of pork, but foreign demand is expected to remain strong.

Turkey production in 1993/94 was up 1 percent from the 288 million birds produced in 1992/93. The increase in feed costs and competition from broilers and other meats combined to lower returns and slow production. In 1994/95, turkey production is expected to be up 2 percent from 1993/94. Lower feed costs may help returns but plentiful supplies of other meats will likely trim prices.

Food, Seed, and Industrial Use in 1994/95 Projected To Rise 5 Percent

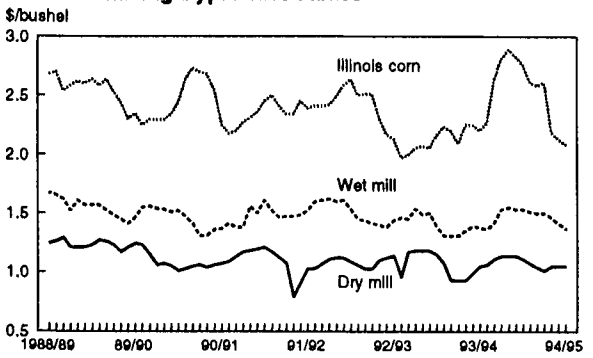
Even with the court-directed stay on implementation of the renewable oxygenates portion of the Clean Air Act, the requirement to use reformulated gasoline is expected to significantly boost fuel ethanol needs in 1994/95.

Food, seed, and industrial (FSI) use of corn in 1993/94 rose 5 percent from 1,511 million bushels in 1992/93, and represented 21 percent of total use, up from 18 percent in 1992/93. The continual rise in demand for corn sweeteners, starch, and fuel alcohol have boosted the percentage of corn use going to industrial uses. In the 1994/95 marketing year, FSI uses of corn are expected to total 1,660 million bushels, up nearly 5 percent from 1993/94, and account for 19 percent of total use. The smaller share of total use is due to larger feed and residual use and exports.

The increase in corn used for industrial purposes in 1994/95 is expected to be led by greater production of fuel alcohol, with 11 percent more used than the 458 million bushels in 1993/94. Earlier this year, the U.S. Environmental Protection Agency (EPA) had mandated that 30 percent of the oxygen-rich additives used to make a new cleaner-burning fuel known as reformulated gasoline must come from renewable sources, beginning with a 15-percent requirement in 1995. Beginning January 1, nine major U.S. cities with the worst smog would be required to use reformulated gasoline, and ethanol is expected to be used to meet the renewable oxygenate requirement. However, with the increased evaporation of alcohol that makes the smog problem worse, the alcohol would have to be used in the colder months or converted to ethyl tertiary butyl ethylene (ETBE), a competing oxygenate, for use in the summer.

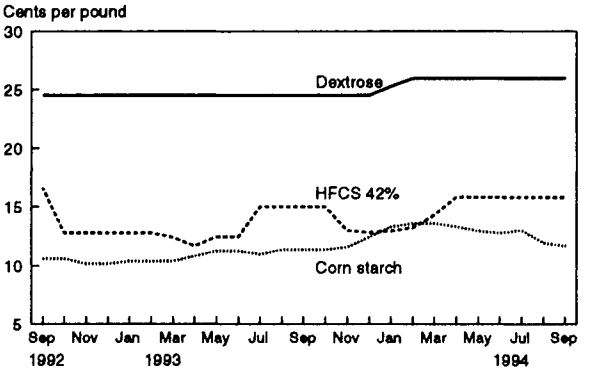
The legality of the program requiring the use of ethanol and other renewable oxygenates in a clean-burning gasoline program was challenged by the petroleum industry in a lawsuit filed with the U.S. Court of Appeals for the District of Columbia. On September 13, the court ordered the EPA to defer its implementation of the ethanol mandate as part of the reformulated gasoline program. The court order lays out a schedule for the EPA, the oil industry, and the Renewable Fuel Association to file legal briefs with the court. The last set of legal briefs is due January 12, 1995, and oral arguments will likely begin shortly afterwards.

Figure 13
Corn and Milling Byproduct Values



Byproduct values converted to corn equivalent based on byproduct yields.

Figure 14
Wet Mill Product Prices



Industry sources suggest the oxygenate of the oil companies' preference is MTBE (methyl tertiary butyl ethylene, another competing oxygenate), but in expanding production of MTBE, additional methyl alcohol was needed. Methyl alcohol plants under the stress of full production have been blowing up, burning, or being forced to close for maintenance, cutting supplies and boosting prices.

In the past year, methyl alcohol contract prices have increased by $.85 to $1.30 per gallon on October 20, 1994, and the spot price at the Gulf was $1.78. Because some gasoline producers can make MTBE or ETBE in their plants, the question arises if ethyl alcohol is competitive with present prices of methyl alcohol in the production of oxygenates. Starting with blended gasoline with MTBE made from methyl alcohol priced at $1.30 per gallon and keeping the blended gasoline with ETBE equal with respect to oxygen level, Reid vapor pressure, and octane, the equivalent price of ethyl alcohol was $1.2625. On October 20, 1994, ethyl alcohol at the Gulf ranged from $1.20-$1.30. Thus for gasoline producers selling blended gasoline, current prices of methyl alcohol and ethyl alcohol appear to be nearly the same. However, firms selling blended gasoline that contains ethyl alcohol or ETBE can receive a tax incentive equal to $.54 per gallon of alcohol.

Table 1--Corn: Food, seed, and industrial use, 1980/81-1994/95 1/

Year	HFCS	Glucose and dextrose	Starch	Alcohol: Fuel	Alcohol: Beverage	Cereals & other products	Seed	Total
	Million bushels							
1980/81	165	156	151	35	78	54	20	659
1981/82	183	160	146	86	86	53	19	733
1982/83	214	165	150	140	110	60	15	854
1983/84	265	167	161	160	88	70	19	930
1984/85	310	167	172	232	84	81	21	1,067
1985/86	327	169	190	271	83	93	19	1,152
1986/87	338	171	214	290	85	109	16	1,223
1987/88	358	173	226	279	77	113	17	1,243
1988/89	361	182	223	287	107	114	19	1,293
1989/90	368	193	230	321	109	115	19	1,355
1990/91	379	200	232	349	80	114	19	1,373
1991/92	392	210	237	398	81	116	20	1,454
1992/93	414	215	238	426	83	117	19	1,512
1993/94	442	223	244	458	83	118	20	1,588
1994/95	455	225	250	510	82	118	20	1,660

1/ Marketing year beginning September 1.

In addition, alcohol would continue to be used to reduce carbon monoxide (CO) emissions from automobiles in CO nonattainment areas during the winter months. The Clean Air Act Amendments of 1990, in force for 39 metropolitan areas and counties that have failed to meet carbon monoxide air quality standards, require gasoline sold during at least the 4 winter months contain 2.7 percent oxygen by weight. With experience in meeting the standards, the winter oxygenate period went smoothly this past year. Alcohol prices did rise when Brazil's import needs increased, but enough supplies were available to meet both demands.

High fructose corn syrup (HFCS) production in 1993/94 used 7 percent more corn than the year earlier's 414 million bushels. The biggest use of HFCS is for soft drinks, which are in greatest demand during the summer quarter. However, shipments were consistently above a year earlier throughout 1993/94. In 1994/95, HFCS production is expected to increase 3 percent from the 442 million bushels of corn used in 1993/94. Consumption of soft drinks sweetened with HFCS is expected to continue strong because of the expanding economy and growth in employment.

Corn used to make glucose and dextrose in 1993/94 totaled 223 million bushels, up 4 percent 1992/93, and 2 percent from the prior year. In 1994/95, corn used to produce glucose and dextrose is expected to increase 1 percent. It is expected that most of the reformulation of baked goods to cut fat and replace it with corn sweeteners has been accomplished, and growth will be more in line with population growth. The brewing industry is also a fairly important user of glucose and dextrose, especially for light beers, but the fastest growing part of the brewing industry is the microbreweries, many of which brew beer the "old fashioned way" using only barley malt and hops.

Starch production in 1993/94 used 2 percent more corn than in 1992/93. Growth in the economy helped increase starch use, which was essentially unchanged during 1991/92-1993/94. The U.S. economy is expected to continue to expand through 1995, thus starch production is expected to grow also. In 1994/95, starch is expected to require 3 percent more corn than the 244 million bushels needed in 1993/94. A lot of the starch produced is used in paper products and as the economy grows, more shipping boxes and other types of paper should be needed. Also, expanded use of recycled paper has helped boost starch use because the shorter wood fibers from recycled paper need extra bonding to hold together.

Corn used in beverage alcohol in 1994/95 is expected to decrease 1 percent from the roughly 83 million bushels used the 2 previous years. Monthly data from the Bureau of Alcohol, Tobacco, and Firearms on distilled spirits production for the 6 months ending March 31 (the latest data) show whiskey, gin, and vodka production down 13 percent from a year earlier. Because some distilled spirits are aged, distillers can adjust production in times when corn prices are high. This may explain the deceased production or consumers may be shifting to lighter drinks.

The amount of corn used in cereals and other products is expected to remain about the same as in the last 2 years--at about 117 to 118 million bushels. While Mexican-type foods, such as corn chips and tacos, have gained favor, more wheat-flour based foods, such as tamales, are showing up. As a result, corn-based foods may have slipped and corn use may not be keeping pace with population growth.

Increased Demand for Grain To Raise Rail and Barge Shipments

Demand for transportation services projected up.

Exports and domestic consumption of total grains and soybeans during 1994/95 are projected at 379.52 million metric tons, 29 million above 1993/94. Most of the increase stems from a projected 25.6-million-metric-ton rise in corn disappearance. Corn exports are projected to grow 7.6 million metric tons from 1993/94 and domestic consumption is projected up 18 million. As a result, demand for grain and barge service is expected to rise sharply during 1994/95.

The projected growth in soybean disappearance, 6 million metric tons, more than offsets a small reduction for wheat, which further increases anticipated demand for transportation services.

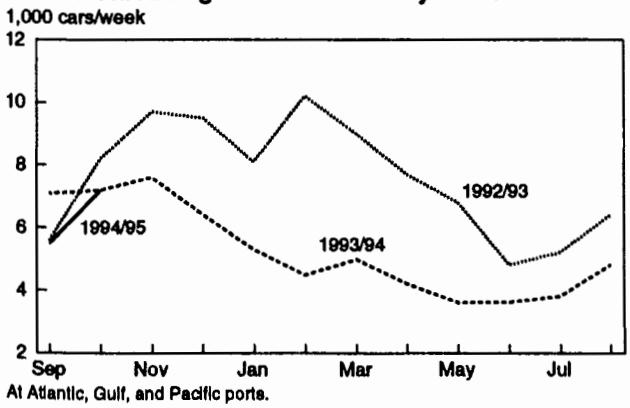
Rail Grain Shipments Down Slightly, but Expected To Rise

During September 1993 through August 1994, rail shipments of grain averaged 25,375 cars per week, 10 percent below a year earlier. Rail loadings of grain are expected to average well above 1993/94 levels during 1994/95 as total disappearance of grains and oilseeds rises.

In 1992/93, railcar loadings of grain averaged 28,064 cars per week. Total corn disappearance was 215.3 million metric tons, 2 percent smaller than projected for 1994/95. With corn disappearance now projected at 219.3 million metric tons, loadings are expected to average 28,000 to 29,000 cars per week during 1994/95.

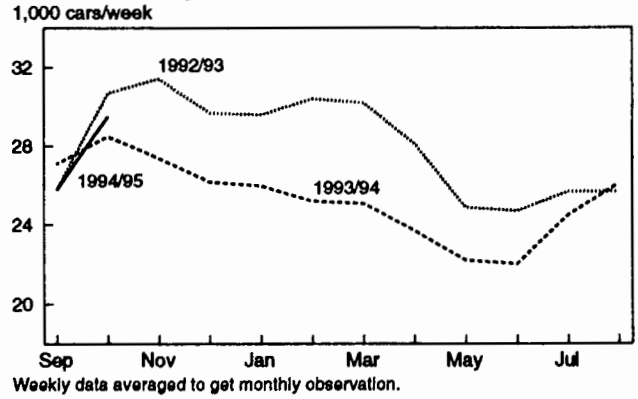
For September-October 1994, rail grain shipments averaged 27,845 cars per week, very slightly below the same months of 1993. Volume rose sharply at mid-month to about 30,000 cars per week, well above the 25,766 cars per week in September.

Figure 15
Railcar Unloadings of Grain and Soybeans
1,000 cars/week



At Atlantic, Gulf, and Pacific ports.

Figure 16
Railcar Loadings of Grain and Soybeans
1,000 cars/week



Weekly data averaged to get monthly observation.

Rail deliveries to ports in September averaged 5,455 cars per week, 14 percent above August, but 23 percent below September 1993. Decreases from 1993/94 were shown for all ports, led by Pacific Coast ports, down 949 cars per week. This decrease chiefly results from an estimated drop in corn exports through these ports of about 24 million bushels from September 1993. Reduced September volume likely reflects reduced exports to Russia. Preliminary data for October shows rail deliveries to ports rising above 7,000 cars per week as the export pace began to pick up. Rail shipments for the remaining months of 1994/95 are expected to rebound from September levels as the record corn crop is moved.

Railcar Supply Up

On September 1, 1994, the number of jumbo covered hopper cars (4,000 cubic feet capacity or more) in active service increased to 255,676, 4 percent above a year earlier. Railroad-owned rail cars accounted for the largest share of the growth, 7,621 cars. Privately owned cars increased 1,627 cars in the period.

Jumbo covered hopper cars are used for a variety of dry bulk commodities in addition to grain. The growth in available cars, however, suggests that grain shippers will have an adequate aggregate supply of railcars in the coming months. However, local problems can be expected during the harvest period because of anticipated high levels of corn and soybean marketings.

Barge Shipments Up In 1993/94 and Expected To Continue Rising

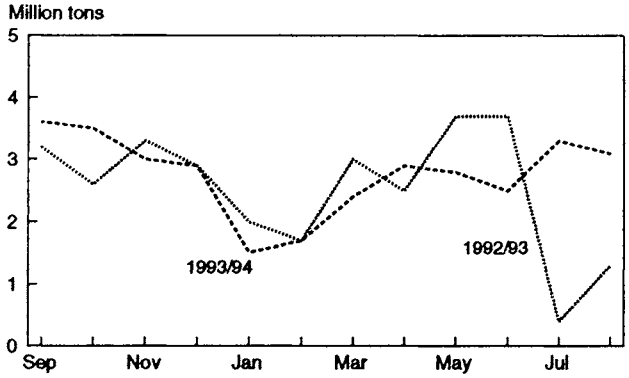
Shipments of grain by barge on the Illinois and Mississippi Rivers during August averaged 3.1 million tons per month, 138 percent above flood-ravaged 1993.

Barge shipments on the Mississippi and Illinois Rivers usually peak during November, averaging 4.2 million short tons over the past 10 years. With total 1994/95 corn and soybean exports projected up 11.6 million metric tons from a year earlier, and some navigation hindrances in sight, barge shipments in November are likely to be well above the long-term November average.

In September 1994, grain shipments on the Mississippi and Illinois rivers fell 35 percent from August to 2 million short tons. Short stocks of high quality corn in the Midwest and availability of new-crop corn in the South are believed to be the primary causes.

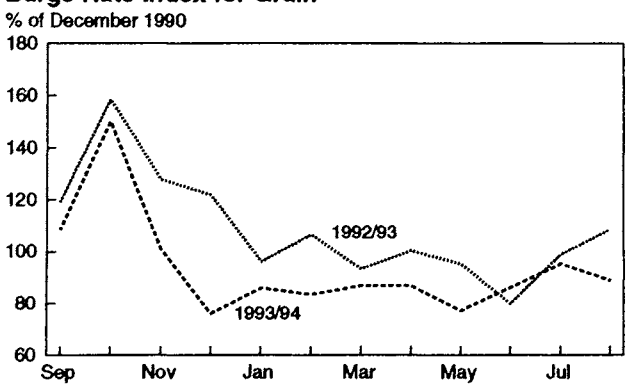
Preliminary data for October 1994 show Mississippi River traffic down 38 percent from October 1993. Lagging corn shipments, down 49 percent, are the chief cause. Grain shipments on the Ohio River, although up sharply in October from a month earlier, also appear to be lagging 1993.

Figure 17
Monthly Grain and Soybean Shipments
Million tons



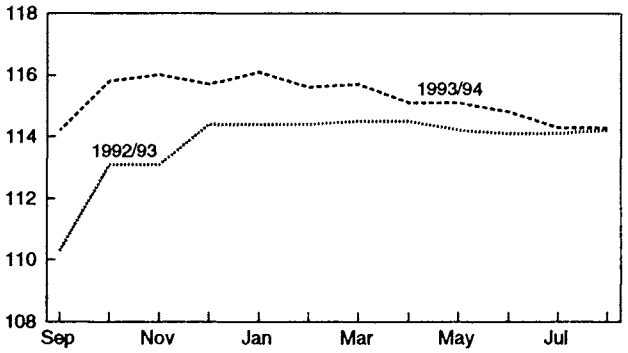
Mississippi River and Illinois waterway.

Figure 18
Barge Rate Index for Grain
% of December 1990



Source: Bureau of Labor Statistics.

Figure 19
Rail Rate Index for Grain
% of December 1984



Source: Bureau of Labor Statistics.

Barge Rates Up Dramatically

The Bureau of Labor Statistics' Index of barge rates for hauling grain on the Mississippi River rose to 152.6 (December 1990=100) in September 1994, up 72 percent from the prior month. This increase appears to be the result of the anticipated increase in demand for barge service. Preliminary indications are that rates remained high into October.

Rail Rates Steady

Although rail shipments of grain during 1993/94 averaged 10 percent below the prior year, rail rates for grain increased about 1 percent. The Bureau of Labor Statistics' Freight Rate Index for Grain averaged 115.2 during 1993/94. Preliminary data show the index declining to 114.6 for September 1994.

Rail rates are expected to remain nearly constant during fourth-quarter 1994. The Interstate Commerce Commission has announced the adjusted Rail Cost Adjustment Factor (RCAF) for fourth-quarter 1994 will decline 1.3 percent from the prior quarter. The RCAF is often used as an escalator factor in rate contracts. Declines in the factor seldom result in rate decreases, but tend to preclude rate increases.

Diesel Fuel Prices Remain Stable

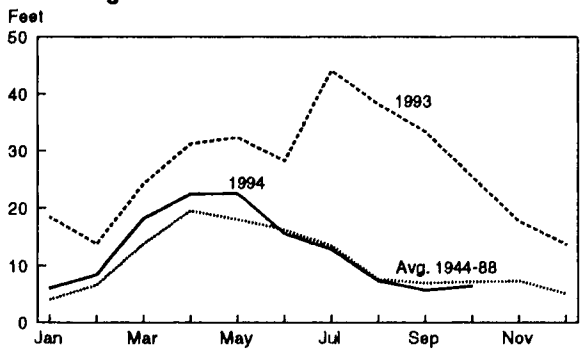
Diesel fuel prices averaged $1.15 per gallon in 1993/94, up fractionally from the prior year. Requirements for reduced sulfur fuel and a 4.3-cent-per-gallon increase in Federal taxes raised diesel prices in October and November 1993, but prices trended down after December.

In September 1994, diesel prices averaged $1.12 per gallon, fractionally higher than in 1993. Preliminary data for October show prices continuing to average $1.12 per gallon.

Truck Costs Up Slightly

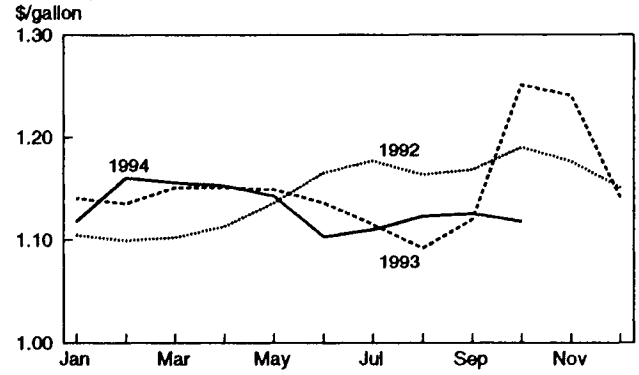
Truck operating costs averaged $1.28 per mile in January-September 1994, up fractionally from 1993. For September, operating costs were $1.28 per mile, up 2 cents from September 1993. This suggests that costs of moving grain to points of first sale will be up very slightly from the prior year.

Figure 20
River Stages at St. Louis



Measured at flood gauge.

Figure 21
Average Diesel Fuel Prices



Source: Interstate Commerce Commission.

Normal Navigation Conditions Expected on the Mississippi Through November, But Interruptions Are in View

The flood gauge at St. Louis, MO, showed water levels averaging 7.3 feet in mid-October, slightly above the 1944-88 average. River levels are expected to decline seasonally through February with no navigation barriers related to water levels in sight.

Ice usually closes the upper Mississippi River in late November or early December. This year, the U.S. Army Corps of Engineers announced it will close the main lock at the Melvin Price lock and dam complex, near St Louis to repair damages caused by an accident earlier this year. Closing is scheduled to run from December 15, 1994, through March 15, 1995.

Traffic slackens, but does not cease on the Mississippi during December-March. Over the past 10 years, these 4 months have accounted for 13 percent of the Mississippi's grain traffic on the stretch above Lock 22. November is usually the busiest month, averaging 13 percent of total grain traffic during the past decade. Closure of the Melvin Price lock is expected to shift some barge loading to downstream points located at or south of St. Louis.

The U.S. Army Corps of Engineers has also announced plans to close four locks on the Illinois river between Lockport and Marseilles, IL, from July 11, 1995, to September 9, 1995. The closure is needed to accomplish major rehabilitation on the aging locks, but will close the river to navigation between the two cities.

Grain traffic on the Illinois River is seasonally low during July to September. Since 1981, July and August combined volume has averaged 12 percent of the annual total. The closure will disrupt grain distribution patterns along the river, but is not expected to restrict exports or reduce domestic feed grain use.

Normal Shipping Season in Prospect for Missouri River

At mid-October, the flood gauge at Sioux City, IA, averaged 17.4 feet, 9 percent above October 1993. Water levels were also up at Kansas City, MO, averaging 12.5 feet, 23 percent below 1993's high water conditions. Availability of water has allowed the U.S. Army Corps of Engineers to again maintain a normal navigation season on the Missouri River. The Missouri is expected to close on November 22 at Sioux City and December 1 at St. Louis, the normal closing dates. The Corps has announced that a normal navigation season is expected for 1995. In a normal year, the Missouri opens on April 1 and closes December 1.

Table 2--Comparison of grain storage capacity with requirements

	Calendar year 1992	1993	1994
	Million bushels		
Storage capacity on Dec 1 1/	20,755	20,116	NA 2/
	Crop Year 1992/93	1993/94	1994/95
	Million bushels		
Grain supplies: 3/			
Feed grains	12,529	10,070	11,990
Wheat	2,931	2,932	2,890
Soybeans	2,466	2,161	2,667
Total	17,926	15,163	17,547
Implied surplus	2,829	4,953	2,569

1/ Source: Grain Stocks, National Agricultural Statistics Service, USDA.
2/ Not available until Dec. 1994. 3/ Beginning stocks plus production.

Aggregate Storage Will Remain Adequate

Because of small coarse grain and soybean crops in 1993/94, stocks of total grains and soybeans on September 1, 1994, were estimated to be 1,922 million bushels, 43 percent below a year earlier. Last year's carryin stocks reflected the large 1992 crops.

Even though record corn and soybean crops are expected this year, total storage requirements for all grain and oilseeds are projected at 17.5 billion bushels. Requirements are defined as estimated beginning stocks plus projected production. Storage capacity as of December 1, 1993, was estimated by USDA's National Agricultural Statistics Service at 20.1 billion bushels, leaving nearly 2.6 billion bushels unused.

More than 58 percent of all capacity is located on farms. Thus, many producers often have no immediate need to transport harvested grain to storage facilities.

Some producers, especially in Illinois, Indiana, Kansas, and Ohio, are likely to encounter unusually tight storage situations at nearby elevators. The very large corn harvests in prospect suggest that waiting lines to deliver grain to local elevators will be longer than usual in the areas of highest production. Even so, all grains and oilseeds are expected to be under cover before January 1995 as anticipated large exports and domestic consumption draw down stocks.

Imports of Canadian Grains and Oilseeds Down In July

Imports of grains and oilseeds from Canada fell to the equivalent of 1,455 railcars per week during July 1994, a low for the year. During January-July 1994 grain and oilseed imports have averaged the equivalent of 1,755 railcars per week, 45 percent above June-December 1993. Wheat and barley have made up the bulk of these imports, accounting for 72 percent of the total. Average size of shipment has remained well under 100 metric tons, indicating that the majority of grain imports from Canada have moved by truck.

World Coarse Grains Production Up in 1994/95 Due to Record U.S. Corn Crop.

Foreign coarse grain production is expected to drop from its near-record high in 1993/94. Global stocks are projected to increase as world production exceeds consumption.

Driven by a bumper U.S. corn crop, 1994/95 global coarse grain output is forecast at 858 million tons, up 9 percent from 1993 and second only to the 1992 crop. While U.S. production moves to near record levels, foreign production is projected down 2 percent.

Global coarse grain consumption is projected up 2 percent to a record 848 million metric tons, with three quarters of the gains accounted for in the United States. Foreign consumption is forecast up 1 percent, but if the former Soviet Union (FSU) is excluded, the remaining countries are up 2 percent.

Strong exportable supplies in the United States are contributing to lower U.S. and world export prices. In September, U.S. fob Gulf export prices for corn were $97 per ton, compared with a recent high of $127 in January. While prices fell steadily through the first half of the year, a sharp drop occurred in July based on expectations of a large rebound in the U.S. crop.

With strong production gains in the United States and a virtual doubling of projected U.S. corn stocks to 46.3 million tons, world coarse grain stocks are projected up 10 million tons to 133.7 million. Despite this 8-percent rebound, world stocks will be remain well below the 1992/93 total and the global stocks-to-use ratio is forecast to remain relatively low at 15.8 percent.

Foreign Production To Decline From Near Record In 1993

Beset by adverse weather conditions in Australia and the effects of policy reforms and lower yields in the FSU and the EU, foreign coarse grain production is forecast down 11 million tons to 586 million tons. In South Africa, yields are expected to drop from last year's near-record high. In the FSU, production is forecast down nearly 7 percent, largely due to a significant decline in coarse grain area. The largest drop in area and production was in rye because of poor prices and severe winterkill. Corn output is also forecast down due to very poor growing conditions for corn in Ukraine and the North Caucasus region in Russia.

In Australia, the worst drought conditions in over a decade have slashed production prospects, with barley and oats showing the biggest drop. In some areas of New South Wales and Queensland, it was too dry to plant wheat or barley. In other states, plantings were down because of poor returns last year. Yield prospects have steadily declined for all states in recent months as rains failed to appear.

Barley production, accounting in general for two-thirds of the Australian coarse grain crop, is currently projected down 56 percent to 3 million tons, but could drop further if rains do not come soon. Also, Australia's sorghum crop will be planted in upcoming weeks and could also fail if the drought does not break. However, there is a long planting window for sorghum in Australia, and farmers can plant in some areas up through December-January.

Foreign production of all coarse grains is projected to decline with the exception of sorghum and mixed grains. Foreign corn output is projected to drop 4.5 million tons to 302 million tons, led by reductions in South Africa and the EU. Similarly, foreign barley production is projected to drop 6.4 million tons to 154 million. Lower barley yields in the EU and Australia, and lower yields and planted area in Canada as producers

Figure 22
Foreign Coarse Grain Production In 1994/95 Drops From Near Record High In 1993/94

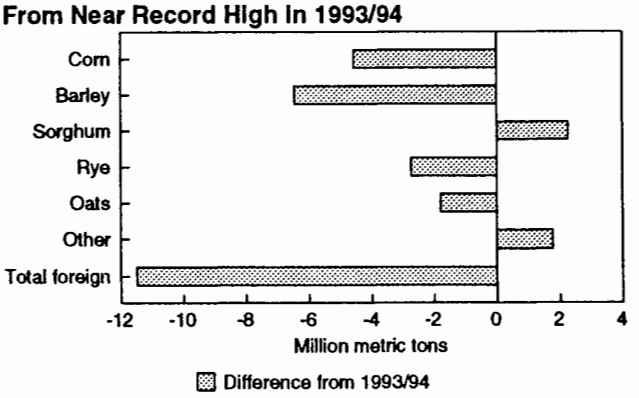
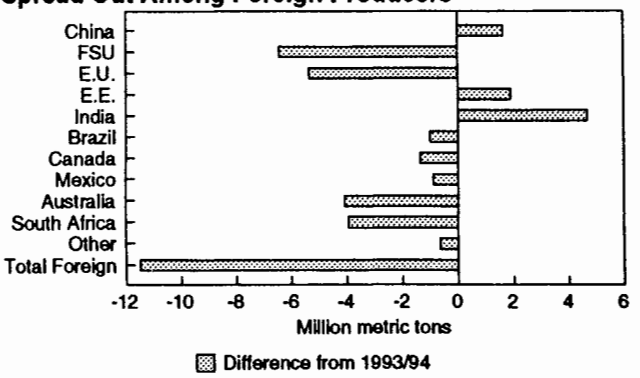


Figure 23
In 1994/95, Coarse Grain Production Declines Are Spread Out Among Foreign Producers



switched to more profitable rapeseed and durum, have contributed to the decline. Algeria's crop is projected at only one-half of the 1993 level and only one-fifth of the 1992 crop as drought has slashed output in the past 2 years. Morocco's barley production, however, more than tripled to 3.7 million tons due to very favorable weather, following 2 years of severe drought.

Foreign sorghum production is expected to rebound from 1993's low level by 2.2 million tons to near 41 million tons. Strong production prospects in India, China, the Sudan, and Australia underpin this estimate. The projected bumper sorghum crop in Australia, however, depends on favorable rains in coming weeks. If rains materialize, high feed grain prices will result in a huge rise in sowings.

Foreign oats production continues to decline with output projected down nearly 2 million tons to 30.3 million. Lower area and yields in Australia are reducing output prospects by almost 50 percent to 900,000 metric tons. Meanwhile the 200,000-ton increase in Canadian oats production nearly offsets the decline in Swedish production as a hot, dry summer reduced yields.

World Coarse Grain Consumption Strengthens on Robust U.S. Demand

Global coarse grain consumption is projected up more than 2 percent to a record 848 million tons. The United States is expected to account for nearly three quarters of the gains in coarse grain consumption. While global corn consumption is projected to grow 5 percent to 527 million tons, foreign consumption is likely to move up 2 percent.

Strong growth, however, in the livestock sectors in China and Brazil is expected to push up their combined corn consumption 5.5 million tons, or 4 percent. This more than offsets the nearly 3-million-ton drop projected in FSU corn consumption where a 2-million-ton drop in corn production is aggravated by declining livestock inventories and limited financial resources to import corn. Additional consumption gains are projected in South Korea as strengthening prices for feed wheat are shifting imports to corn.

Trade Outlook for Coarse Grains Constrained In 1994

Reduced coarse grain production by foreign exporters buoys export prospects for U.S. corn.

World coarse grain trade in 1994/95 is projected at 84.9 million tons, up nearly 2 percent from the estimated volume in 1993/94, but still relatively low compared to historical levels. Foreign coarse grain exports, however, are projected to drop 17 percent to 36.6 million tons as major competitors' exportable supplies are down because of sharp production declines and/or strong domestic demand. Lower production prospects for coarse grains other than corn are reducing the outlook for trade in these grains while increased supplies of corn, especially in the United States, and significantly lower prices than last year, will buoy import demand for corn.

Lower world prices for corn will mean some importers will shift away from higher priced feed wheat as well as feed barley. Feed barley prices have risen sharply in recent weeks as the drought in Australia has slashed its crop prospects. Lower than expected production and carryin stocks in both the EU and Canada have also tightened foreign exportable supplies.

Corn Trade Prospects Improve

Improved production prospects, particularly in the United States, reduced exportable supplies of wheat for feeding and other coarse grains, and competitive corn prices are enhancing the outlook for global corn trade in 1994/95. World corn trade is projected up 9.5 percent to 60.6 million tons. U.S. corn exports are expected to benefit from reduced foreign exportable supplies of all coarse grains with U.S. corn exports forecast at 41.5 million tons, up nearly 27 percent from 32.8 metric tons last year. The U.S. market share is projected at 70 percent, the highest in over a decade.

Foreign corn exports are projected to decline to 19.1 million tons, the lowest since 1990/91. In China, strong domestic demand has strengthened internal prices and curbed export prospects. Likewise, the outlook for EU corn exports to third country destinations continues to deteriorate as lower production, declining stocks, and strong domestic demand curtails exports.

Strong domestic demand and higher prices in China are restricting exports and leading to a projected 2.5-million-ton drop in corn exports to 9 million tons. Domestic prices have risen above world prices in recent months and have made China's exports much less competitive. In addition, the government has apparently discouraged exports in a concerted effort to combat rising urban inflation. (See special article on China).

Lower corn prices are forecast to lead to higher imports in a number of countries in 1994/95, especially South Korea and Mexico. However, due to continued declines in livestock inventories and financial constraints, FSU corn imports are projected to drop by 500,000 tons to 3.2 million, the lowest in over two decades.

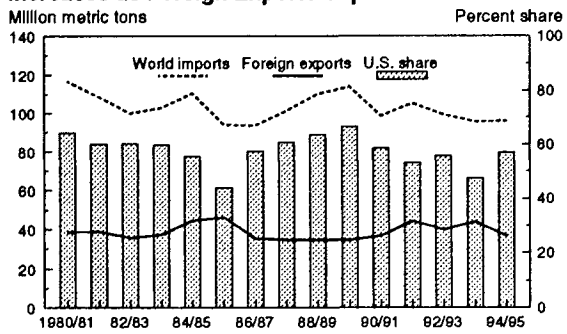
Table 3--World coarse grain trade: Major exporters and importers, by commodity, 1992/93-1994/95

Item	1992/93	1993/94 2/	1994/95 3/	Percent change from 1993/94
	Million metric tons			
CORN				
Exporters:				
U.S.	41.8	32.8	41.5	27
Argentina	4.8	4.3	4.5	6
China	12.6	11.5	9.0	-22
Thailand	0.2	0.1	0.6	500
South Africa	0.0	3.0	3.0	0
EU	0.3	1.2	2.0	0.5
Other	2.3	2.6	0.0	-99
Total	62.0	55.4	60.6	9
Importers:				
Japan	16.8	16.0	16.8	5
Former FSU	6.4	3.8	3.2	-16
EC-12	1.6	2.2	2.2	0
Korea, Rep.	6.5	5.5	7.0	27
Taiwan	5.6	5.4	5.5	2
Mexico	0.4	1.5	3.0	100
Eastern Europe	1.6	0.6	0.4	-33
Brazil	1.2	1.0	1.0	0
Egypt	1.7	1.9	2.1	11
Other	20.2	17.5	19.4	11
Total	62.0	55.4	60.6	9
Barley				
Exporters:				
EC-12	5.5	6.5	6.0	-8
Canada	2.9	4.0	4.0	0
Australia	2.6	3.1	0.8	-74
U.S.	1.6	1.6	1.3	-19
Other	2.7	2.3	2.9	26
Total	15.3	17.5	15.0	-14
Importers:				
Saudi Arabia	3.9	4.5	4.5	0
Former FSU	2.6	1.1	1.0	-9
Eastern Europe	1.4	1.7	0.7	-59
Japan	1.7	1.6	1.6	0
Others	5.7	8.6	7.2	-16
Total	15.3	17.5	15.0	-14
SORGHUM				
Exporters:				
U.S.	6.6	5.1	5.5	8
Argentina	1.0	0.5	0.5	0
Australia	0.1	0.4	0.0	-100
Others	1.0	0.7	0.3	-57
Total	8.7	6.7	6.3	-6
Importers:				
Japan	3.2	2.8	2.8	0
Mexico	4.0	3.2	2.4	-25
Taiwan	0.1	0.0	0.1	0
Israel	0.2	0.1	0.2	100
Former FSU	0.0	0.0	0.0	0
Others	1.2	0.6	0.8	33
Total	8.7	6.7	6.3	-6
COARSE GRAINS				
TOTAL TRADE	90.1	83.4	84.9	2
FOREIGN	40.0	43.9	36.6	-17
U.S.	50.1	39.5	48.3	22

1/ October-September year, excludes intra-EU trade. Totals might not add because of rounding. 2/ Forecast. 3/ Projected.

Strong demand for corn imports by Mexico are likely to account for nearly one-third of global gains in corn imports. Mexican corn imports, projected to double from 1.5 million metric tons to 3 million tons, are dampening the outlook for

Figure 24
U.S. Coarse Grains Market Share Increases as Foreign Exports Slip



its sorghum purchases, however. Mexico's sorghum imports are projected to drop 800,000 tons to 2.4 million. U.S. corn exports jumped sevenfold from a year earlier during January-August 1994. In addition, as of October 20, according to the *Export Sales Report*, 367,500 tons had been shipped since September 1 while outstanding sales were 757,100 tons. Mexico's minimum tariff-free quota for calendar 1994 is 2.5 million tons, but its government can raise the quota if needed.

A tighter world wheat market and higher prices for the reduced supplies of feed quality wheat are favoring a shift in South Korean imports from feed wheat to corn. South Korean feed importers, responding to a sharp jump in prices offered for feed wheat, are projected to increase corn imports by 1.5 million tons to a record 7 million tons. Sourcing of this corn will largely depend on relative prices between corn from the United States and China, although quality concerns with China's corn could also influence this choice. Lower exportable supplies from China imply stronger demand for U.S. corn.

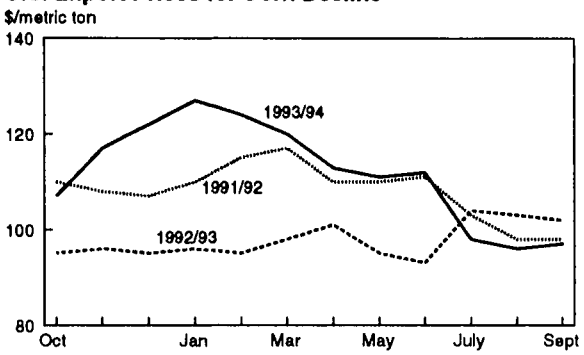
Trade of All Other Coarse Grains Down From 1993/94

Production shortfalls by foreign producers of other coarse grains and lower corn prices will restrict gains in trade of other coarse grains. Foreign exports of coarse grains other than corn are projected to drop 18 percent to 17.5 million tons.

Reduced barley output in the major exporting countries and lackluster import demand are expected to drop global trade to 15 million tons, down nearly 9 percent from 1993/94. An absence of offers for new-crop Australian feed barley is pushing up global prices. Reportedly, Saudi Arabia recently had to pay around $120 per ton C&F for European barley, up significantly from early summer.

Drought-reduced exportable supplies from Australia are likely to lower barley exports to a near-record low of 750,000 tons, down nearly fourfold from last year's 3.1 million metric tons. Much of these exports will likely be malting barley to China. Only small exports of feed barley are expected because of strong domestic demand from the rapidly growing feedlot industry, exacerbated by demand from grass-based livestock producers seeking grain to keep cattle and sheep breeding stock alive. This soaring grain demand and low supplies are

Figure 25
U.S. Export Prices for Corn Decline



Prices FOB Gulf ports.

pushing up feed prices to the point that the Australian barley board is unable to make tenders for exports.

Domestic prices in Australia in September were quoted at $133-135 per ton. In an unprecedented move, the Australian quarantine officials, in mid-October, approved 120,000 tons of sorghum imports, significantly above the import record of 23,000 for total coarse grains. Historically, phytosanitary regulations, that developed from concerns that imported grains may contaminate domestic grain production, have restricted grain imports.

Recently, South Korea, moving toward increasing its minimum access under the Uruguay Round agreement, announced a feed barley import license that will allow imports of about 100,000 tons. Previously, barley imports were limited to barley for human consumption, primarily for alcoholic beverages. A poor domestic barley crop and rising feed wheat prices are stimulating interest by feeders to substitute imported barley for other grains. However, rising barley prices will probably discourage any major switches by the very price-sensitive South Korean feed industry.

China's Corn Sector: Future Competitor, Market, or Both?

by
Frederick W. Crook and Peter A. Riley [1]

Abstract: China has been the world's second largest corn exporter since 1987/88. It is also the second largest producer and consumer of corn. Rapid growth in per capita income and meat consumption in recent years has led to a large increase in demand for corn for feed. Concerns about China's ability to raise productivity and forecasts for continued sharp gains in incomes and future demand for meat raise questions about China's capacity to remain a large exporter. Data questions make analysis more difficult. China's future corn trade is highly uncertain, but increasing internal demand suggests exports will begin to fall and imports will resume.

Keywords: China, corn production, exports, imports, meat consumption, and feed.

Introduction

This article reflects the observations and findings of a USDA corn study team that visited China in September 1994, as well as the results of ongoing ERS research. The study team went under the auspices of the U.S.-China Science and Technology Exchange project, coordinated by USDA's Office of International Cooperation and Development, and hosted by China's Ministry of Internal Trade. The team collected information on China's corn production, consumption, marketing, transportation, foreign trade, and policies.

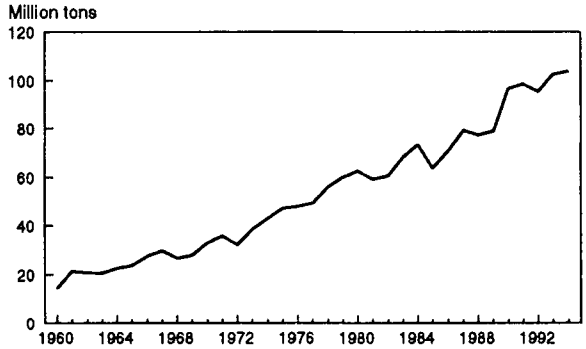
Corn has been grown in China since the 16th century. Currently, China is the second largest corn producer after the United States, no small accomplishment for a country that is also the world's largest wheat and rice producer. Corn accounted for 18.7 percent of total grain area in China in 1993. All but 2 of China's 30 provinces raise corn and 8 provinces annually raise more than 1 million hectares each.

The corn team visited at a time when China's corn exports appear to be slowing, at least temporarily. Corn and other grain prices have been rising sharply, reflecting rapid increases in demand. Along with higher prices in the free market, the government has also raised procurement prices to boost farm income and to provide more incentive to grow corn. The labor-intensive nature of both production and marketing of corn in China is striking, but labor costs still appear to be very low.

Large Production Achieved on Small, Intensively Planted Plots

Official Chinese sources report that corn production rose from 14.3 million tons in 1960 to an estimated 102 million in 1993, an annual average growth rate of 6.1 percent. Output gains in the early 1980's largely reflected rural reforms that raised corn purchase prices and allowed individual farm households to make their own cropping decisions.

Figure A-1
China's Corn Production, 1960-1994



Forecast for 1994.

On first impression, large areas of China's prime producing areas resemble the U.S. Corn Belt, with huge, flat fields of corn stretching for hundreds of acres. However, these fields actually consist of very small plots--tiny by U.S. standards--that are worked by farmers and their families and are planted contiguously. Row spacing tends to be tighter than in the United States, but there is no fencing or obvious demarcation except for occasional border rows of sorghum or other crops.

The differences with the United States become more apparent at harvest as the small individual family plots are harvested by hand at different speeds. During the harvest, there is a patchwork of standing corn and nearly bare ground as many farmers cut the stalks and haul them out of the fields. There is an extremely high use of hand labor for all operations. Irrigation is widely used for corn in the North China Plain, but mainly on a supplementary basis.

In parts of China, corn is also double-cropped with other crops, such as winter wheat. This limits the growing season, creating very short planting and harvesting windows. There are also large areas where corn is extensively intercropped with other crops, planted on hillsides, and grown in other

[1] Agricultural Economists, Commercial Agriculture Division, Economic Research Service, USDA.

Figure A-2

China's Corn Area and Yields, 1960-1994

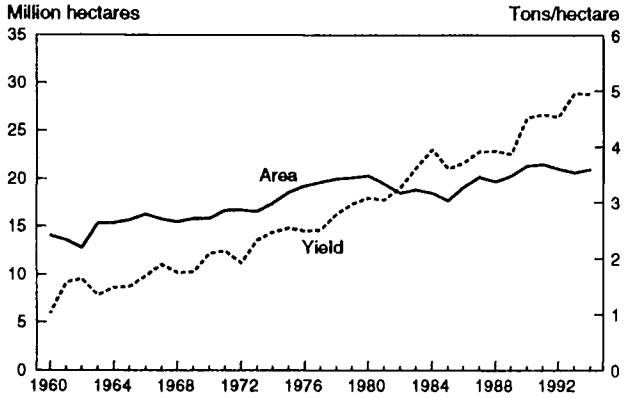


Table A-1--China's corn yields compared with those in selected countries

Country	Production description	Average 1981-83	Average 1991-93
		Tons/ha	
China	Partly irrigated	3.31	4.69
India	Partly irrigated	1.22	1.56
Indonesia	Mostly rainfed	1.60	1.85
Philippines	Mostly rainfed	1.00	1.39
Thailand	Mostly rainfed	2.17	2.69
France	Partly irrigated	6.10	7.80
Italy	Partly irrigated	6.91	8.20
Russia	Mostly rainfed	NA	2.79
Ukraine	Mostly rainfed	NA	2.96
South Africa	Mostly rainfed	1.35	2.28
Argentina	Mostly rainfed	3.07	4.25
Brazil	Mostly rainfed	1.74	2.30
Mexico	Mostly rainfed	1.38	2.04
United States	Mostly rainfed	6.35	7.13
World		3.26	3.80

Source: USDA.

more marginal conditions. Some of the warmer areas in the southwest produce two corn crops per year.

The northeast (Manchuria and Inner Mongolia) comprises one of the main producing ares, where corn is the dominant crop, followed by soybeans. This area is located in roughly the same latitudes as Iowa and Minnesota and has a growing season of 120-135 days. Yields are highest in this region, averaging about 99 bushels per acre in 1993. The North China Plain is another major corn area, but corn is commonly double-cropped with wheat, limiting the growing season to 90-100 days. The southwest comprises the third large corn area, but growing conditions are much less favorable, and yields are relatively low.

Corn Area May Be Greater Than Reported

Strong competition for land means that future gains in corn production will be driven mainly by yield increases, with potential increases in corn area likely to be small. Increases in corn area will come from reclaimed land in Manchuria and from some shifting of other crops in areas further south.

There is considerable uncertainty about current corn area data. Reports published by China's State Statistical Bureau suggest that corn area expanded from 12.8 million hectares in 1962 to a high of 21.5 million in 1991, an annual average growth rate of 1.2 percent. But recently published documents from China suggest that total cultivated crop area has been underreported, and this underreporting may include some corn area. No official confirmation of this is likely until at least 1997 when China conducts its first Agricultural Census.

Hybrids and Fertilizers Boost Yields

China's officially reported corn yields are relatively high, ranking below only the United States and a few European countries in 1993. Average yields in China rose from 1 ton per hectare in 1960 to 4.95 tons in 1993, an annual average growth rate of 4.9 percent. Yields rose because of increased use of hybrid varieties, which accounted for over 80 percent of total corn sown and nearly all corn planted in prime areas. Chemical fertilizer use also rose sharply and new varieties allowed greater planting density. Cultural practices continue to reflect China's abundance of labor. These include hand thinning, hand transplanting to get full stands, hand weeding, and even harvesting that is mainly done by hand.

To the degree that area has been underreported and officials tried to approximate the real production numbers, corn yields in China may be overstated. These conclusions are not so important for the current situation, but are important for projections. While formulating corn production projections over the last decade, ERS limited the corn yield growth rate because it believed the yields were already very high. If yields are somewhat lower, there is probably more upward potential, especially if more land is irrigated.

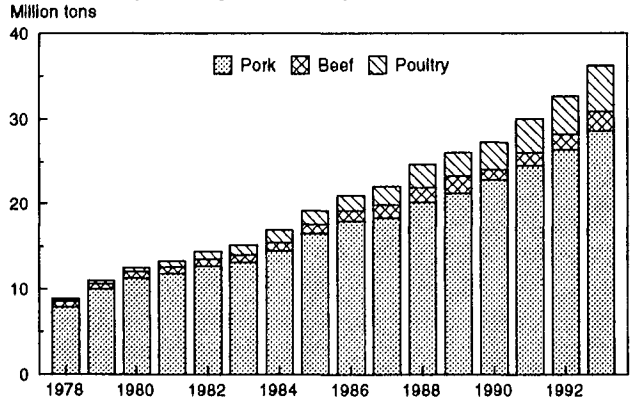
Feed Use Dominates China's Corn Consumption

Corn is China's most important feedstuff, and demand has been rising dramatically. In recent years, China's economy has experienced very rapid growth, bringing gains in living standards and a sharp increase in the demand for meat, poultry, and livestock products. Higher meat consumption is particularly evident in the cities and wealthy provinces such as Guangdong, where per capita incomes are highest.

Feed accounts for an estimated 70 percent of total corn use. The manufactured feed industry, which basically started in the late 1970's, has grown at nearly 10 percent per year and produced more than 39 million tons in 1993, according to

Figure A-3

China's Expanding Meat Output



official data. China's goal is to reach 100 million tons by 2000, although that is admittedly very ambitious. However, even a much smaller target would still mean continued rapid growth in the demand for corn.

China's meat production mainly consists of pork, followed by poultry. Beef and lamb comprise only about 10 percent of meat output, and dairy output is also relatively small. With extensive areas of the country unsuited for grains, China plans to expand the production of ruminant animals to take advantage of grazing potential. However, limited consumer acceptance suggests pork and poultry will remain dominant, with both heavily dependent on grain feeding. In addition, China exports pork and poultry meat, and both have been increasing recently. China's poultry meat exports recently surpassed those of Thailand, and China is now the fourth largest exporter in the world.

Feed conversion ratios in China are currently quite poor, and gains in efficiency are likely to occur over time. Fish farming is widespread, and, while fish are more efficient converters of feed than even poultry, corn is apparently a small part of the fish feed supply.

Food accounts for an estimated 15 percent of total corn use. Corn is still consumed directly as a food grain in some of the more remote rural areas and as an occasional food in urban areas. It appears that most of the switch from eating corn to rice or wheat as the principal food grain has already occurred, leaving little additional release of corn to feed.

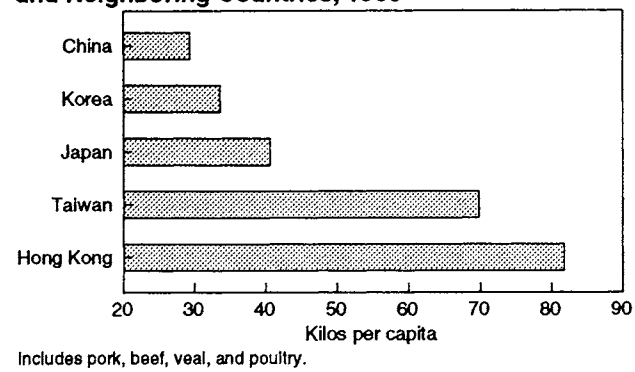
Industrial use of corn in China is relatively minor, accounting for about 7 percent of total use. China produces starch, alcohol, citric acid, snack foods, and some other products. The processing sector is likely to expand in the future, especially with greater foreign investment, but it will remain a relatively small player.

Over the next decade, China's gross domestic product is projected by USDA to grow 8 percent a year. Continued economic reforms, high rates of domestic savings and investment, continued foreign investment and greater involvement in international trade should support the high growth rates, unless problems with inflation cause the government to sharply restrict economic activity. The population is expected to grow about 0.88 percent a year. Transportation and energy bottlenecks and resistance to reforms will constrain the economy from growing even faster.

With rising per capita incomes, China's meat and poultry consumption is expected to parallel to some extent the patterns set by its East Asian neighbors. In 1993, per capita meat consumption reached 29 kilograms, which is close to that in South Korea, lower than in Japan, and considerably lower than in Hong Kong and Taiwan.

A slight change in meat consumption translates into huge changes in feed use. Raising per capita meat consumption 1 kilogram requires an additional 1 million tons of meat, implying an increase in feed consumption of roughly 4 million tons. Even if meat consumption remains level, population increases alone will necessitate substantial increases in the quantity of corn used for feed. Pressure on corn supplies, at least at the margin, is likely to be tempered by increased use of industrial byproducts for feed over time. Some of these byproducts are currently exported, such as sugarbeet pulp, while growth in various processing industries will mean additional sources.

Figure A-4
Per Capita Meat Consumption in China and Neighboring Countries, 1993



Includes pork, beef, veal, and poultry.

Despite Some Shift from Central Planning, Government Continues Marketing Controls

Most corn is sold on a shelled basis and moved in 85-kilogram burlap bags. Farmers mostly deliver corn to local government-owned, grain station depots, from which it is moved to intermediate and larger grain depots. Regulations call for the moisture content for purchased grain not to exceed 18 percent, but this appears to be widely disregarded. The use of mechanical grain driers at depots is increasing, but farmers rely on sun and air drying. Some of the big depots store corn in bags and in bulk. In addition to warehouses and elevators, there is much temporary storage in traditional thatched roof bins and bags covered by tarps. Authorities claim very low losses in storage, although handling losses are more significant.

Trucks are used for short hauls of corn up to about 200 kilometers. Railroads are used for intermediate movements, using a combination of bagged corn and bulk wagons. There are relatively few dedicated hopper cars. Rail rates are subsidized by the government and are relatively low, but the total volume of rail traffic is immense, given China's severe shortage of transportation. Longer movements of corn, primarily from the northeast to the south of China, are by sea, using coastal vessels. Some barges are used for river shipments.

With the heavy dependence on bags, marketing operations require extensive use of labor. For exports, much of the corn must be emptied from bags by hand into the holds of ships that will deliver in bulk to foreign customers. Large investment in infrastructure projects should improve China's transportation and handling system over time. For example, expansion of bulk grain facilities and other improvements are planned for Dalian, China's foremost seaport for corn, where most shipments originate to both overseas customers and southern provinces in China.

China is undergoing a transition from tight central planning to a more market-oriented economy. The corn marketing system has elements of both. Because of its critical importance, the marketing of wheat, rice, and corn retains more controls than the marketing of other grains and most other crops or livestock. Farmers are still required to meet minimum quotas that are sold to local state grain bureaus at fixed procurement prices. These fixed prices were traditionally set quite low and local authorities frequently ran short of cash and had to issue unpopular IOU's to pay farmers.

The state, through its regional grain bureaus and some other organizations, has been responsible for maintaining stocks, selling most of the grain to users, and foreign trade.

In recent years, the role of the market has been allowed to expand. Wholesale grain exchanges and futures markets are being established. Many farmers now sell their corn in free markets that reflect supply/demand conditions or sell directly to feed mills at free market prices paid in cash. However, farmers must still meet their quotas before selling in the free market, even though procurement prices are generally lower than those in the free market.

Prices Have Risen in 1994

In 1994, corn prices have been rising. Procurement prices were raised by the government. The price went from 440 yuan per ton (about $76 at the exchange rate then in effect) in 1993 to 700 yuan (about $96) in Liaoning province, a surplus area. Procurement prices are higher in some other provinces where there is normally a corn deficit. Also, free market prices for corn have risen sharply because of strong demand. In mid-September, just prior to harvest, free market prices reported in Jilin province, a major producing area, were 930 to 960 yuan ($109-$113), compared with the quota price of 700 yuan. In Guangdong province, the major consuming area in the south where nearly no corn is grown, a market price of 1,100 yuan ($129) was cited.

One underlying result of the expansion in market forces will probably be more incentives to farmers. However, it is not clear if information sources for farmers are developed enough yet to accurately convey price data.

It is likely that market prices will begin to retreat as the new harvest is delivered in the next few weeks, but the key question is how much. One possibility is that the fixed quota price will function as a floor price, unless the harvest greatly exceeds expectations.

Some notion of what these prices imply for imports and exports can possibly be derived by adding estimated marketing and transportation costs. Handling and assembly costs probably run about $8-10 per ton. Transportation costs to move corn from the northeast to southern China by sea currently run about $9-12 per ton. It costs roughly $8-9 per ton to ship corn to South Korea, well below the costs of moving U.S. corn to South Korea, which are typically in the $20-25 range.

Questions About Stocks Add to Uncertainties

The amount of grain stocks in China is not usually made public, and the corn team was not able to obtain any official data during its trip. However, the team was informed by some officials that corn stocks had been drawn down somewhat recently, and this might result in some reduction in exports. (The team visited a number of grain storage facilities in the surplus producing areas that had corn on hand, but probably less than observed in previous visits by one team member.)

In the last year, there have been some indications that USDA estimates of total grain stocks may be too low. This presumably would include substantial amounts of grain held on-farm. However, the sources that identified these larger stocks did not break them out by type of grain. The team was not able to uncover enough evidence to either verify or refute this notion.

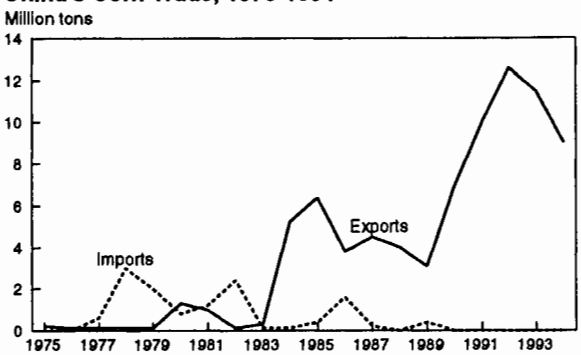
The role of stocks in China is not fully clear. China has traditionally placed great value on grain self-sufficiency, and it has also faced a number of calamities and even famine that would support the concept of very large stockholding. In recent months, the release of corn stocks has apparently not been able to hold down price increases. Perhaps this indicates that corn stocks were not that large, or that underlying inflationary pressures have been too substantial. Alternatively, it may be that a large amount of corn has been retained in grain reserves outside of normal commercial channels.

China Became Net Exporter in the Mid-1980's

From around 1960 through the mid-1980's, China was an erratic corn importer: It imported no corn in some years and imported more than 3 million tons in others. Corn was imported from 1960 to 1964 to supplement domestic food grain shortages stemming from the disruptions caused by the "Great Leap Forward." It is more difficult to assess why imports peaked during 1978-82. Were imports used to supply urban consumers during a period when crop patterns were adjusted as part of rural reforms? There have been virtually no imports since 1989 and China has been a net exporter since 1986.

China exported some corn as long ago as the 1920's and 1930's. In recent times, it resumed exports in 1960 and continued to export small quantities until 1984, when shipments suddenly rose to over 5 million tons. But with available

Figure A-5
China's Corn Trade, 1975-1994



1993 preliminary, 1994 projected.

Table A-2--China's corn exports by destination 1/

Country/region	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
				1,000 tons			
South Korea	358	424	305	503	3,278	4,649	5,480
Japan	2,111	1,272	1,515	831	1,600	1,868	2,102
Malaysia	12	207	345	107	411	1,155	1,528
FSU	1,145	1,844	1,185	1,176	812	832	1,458
Iran	76	72	66	66	143	389	573
North Korea	65	169	216	306	232	349	383
Indonesia	22	37	25	23	67	114	340
Eastern Europe	0	40	4	7	9	16	326
Thailand	94	92	92	92	91	307	80
Hong Kong	87	230	178	49	138	131	64
Singapore	0	98	152	18	103	86	60
Sri Lanka	0	0	0	0	30	53	44
Others	67	137	87	95	66	25	185
Total	3,802	4,458	4,008	3,085	6,880	9,974	12,623

1/ October-September year.

evidence it is difficult to provide reasons for the sudden increase in corn exports. Although corn production increased dramatically, demand for meat and feed grains also rose rapidly. Was there a shift in government grain export and grain stock policies that made it profitable to export corn? Another possibility is that production was understated by official sources, and a large surplus had developed.

In 1992/93 (October-September), China exported 12.6 million tons of corn, most of which went to Asia.. For example, 88 percent of China's corn exports went to five neighboring economies: South Korea, the largest market, followed by Japan, Malaysia, Russia, and North Korea. In a number of East Asian markets, China's corn competed with and displaced U.S. corn. For example, the U.S. share of the South Korean corn market fell from 90 to 16 percent from 1989/90 to 1992/93 while China's share went from 8 to 84 percent.

China has largely competed on the basis of attractive prices. However, it also has some other advantages in Asia. Because of its location, it is able to supply corn on very short notice, reaching many customers in only 1 or 2 days' shipping time. The use of small vessels is also an advantage because larger vessels used for U.S. corn cannot be accommodated in many Asian ports, including those in Malaysia and some in Japan.

Despite some loosening of controls in 1993, the central government has apparently tightened its control over export decisions in recent months. Provincial authorities still have a voice, but the structure of corn exporting is undergoing changes with some new export organizations created this year. Corn imports are also subject to government approval, although joint-venture operations are apparently free to import. Imports are subject to a surcharge of 9 or 14 percent, depending on the most-favored nation status of the supplier.

Will China Remain a Major Exporter?

USDA estimates that China's corn exports in 1993/94 (October-September) will drop slightly to 11.5 million tons, the first year-to-year decline in 5 years. In 1994/95, its exports are forecast to decline 22 percent to 9 million tons. This reflects the lack of new sales in recent weeks while U.S. prices have been decreasing. China's current internal prices are higher than U.S. f.o.b prices.

Is the current slip in exports a hiccup or a turning point? This will mainly depend on whether production can increase sufficiently to outpace gains in demand. In addition, the amount of stocks and how they are used are important. There is obviously no certain answer. China will likely emerge as both a corn importer and exporter, but when and the quantities involved are difficult to forecast.

In the short run, China's exports are likely to continue large, although probably at a slightly lower level than in recent years. Over the longer run, China's exports are likely to shrink further, but they are not likely to stop. Although imports probably will begin on a small scale in the next few years, China may remain a net exporter for the next 5 to 10 years. In years of poor weather, however, imports may become large enough to make China a net importer.

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List of Tables and Figures

Text Tables **Page**

Feed Grain Summary 3
1. Corn: Food, seed and industrial use, 1980/81-1994/95 14
2. Comparison of grain storage capacity with requirements 17
3. World coarse grain trade: Major exporters and importers, by commodity, 1992/93-1994/95 21

Special Article

A-1. China's corn yields compared with those in selected countries 24
A-2. China's corn exports by destination 27

Figures:

1. Feed Grain Supply To Recover in 1994/95 4
2. Corn Production 4
3. Corn Area and Yield 5
4. Corn Prices Received by Farmers and Loan Rates 5
5. Sorghum Area and Yield 6
6. Barley Supplies Decline in 1994/95 7
7. Oats Supplies Decline in 1994/95 8
8. Hay Supply and Disappearance Per RCAU 10
9. Hay Farm Prices 10
10. GCUA'S Prices, and Feed & Res. Use of Grains 11
11. Dairy Cow Feeding Rate 11
12. Protein Feed Prices 12
13. Corn and Milling Byproduct Values 13
14 Wet Mill Product Prices 13
15. Railcar Unloadings of Grain and Soybeans 15
16. Railcar Loadings of Grain and Soybeans 15
17. Monthly Grain and Soybean Shipments 16
18. Barge Rate Index for Grain 16
19. Rail Rate Index for Grain 16
20. River Stages at St. Louis 17
21. Average Diesel Fuel Prices 17
22. Foreign Coarse Grain Production Drops in 1994/95 from Near Record High in 1993/94 19
23. In 1994/95, Coarse Grain Production Declines Are Spread Out Among Foreign Producers 19
24. U.S. Coarse Grains Market Share Increases as Foreign Exports Slip 21
25. U.S. Export Prices for Corn Decline 22

Special Article

A-1. China's Corn Production, 1960-1994 23
A-2. China's Corn Area and Yields, 1960-1994 24
A-3. China's Expanding Meat Output 24
A-4. Per Capita Meat Consumption in China and Neighboring Countries, 1993 25
A-5. China's Corn Trade 1975-1994 26

List of Appendix Tables

1. Corn, sorghum, oats, barley: Farm price, planted acreage, harvested acreage, production, and yield, 1951 to date 30
2. Foreign coarse grains: Supply and disappearance, 1978/79-1994/95 32
3. Feed grains: Marketing year supply and disappearance, 1975/76-1994/95 33
4. Corn: Marketing year supply and disappearance, 1977/78-1994/95 34
5. Sorghum: Marketing year supply and disappearance, 1977/78-1994/95 34
6. Barley: Marketing year supply and disappearance, 1977/78-1994/95 35
7. Oats: Marketing year supply and disappearance, 1977/78-1994/95 35
8. Corn: Marketing year supply and disappearance, specified periods, 1977/78-1994/95 36
9. Sorghum: Marketing year supply and disappearance, specified periods 1977/78-1994/95 39
10. Barley: Marketing year supply and disappearance, specified periods, 1977/78-1994/95 42
11. Oats: Marketing year supply and disappearance, specified periods 1977/78-1994/95 45
12. Farm programs and participation, 1977-94 48
13. Average prices received by farmers, United States, by month, and loan rate, 1973-94 49
14. Cash prices at principal markets, 1973-94 51
15. Feed-price ratios for livestock, poultry, and milk, by month, 1973-94 55
16. Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by month, 1973 to date 57
17. Corn, sorghum, barley, and oats exports, 1979/80 to date 60
18. Corn, sorghum, barley, and oats imports, 1979/80 to date 65
19. Feed grains and grain products used in the production of alcohol, distilled spirits, and beer, by month, 1976 to date 70
20. Hay: Production, harvested acreage, yield, prices received by farmers, and stocks 1970-1994 72
21. Hay: Average prices received by farmers, United States, by month, 1970/71-1994/95 72
22. Shipments of grain on the Illinois waterway and the Mississippi River (Locks 11-22), 1981/82-1994/95 73
23. Weekly average of rail car loadings of grain and soybeans, 1981/82-1994/95 73
24. Rail-freight-rate index for grain, crop years 1981/82-1994/95 73
25. Indexes of animal units, 1975/76-1993/94 74
26. Feed concentrates, number of animal units, and feed per unit, 1985-94 75
27. Processed feeds: Quantity fed, 1985-93 76

Appendix table 1--Corn, sorghum, oats, barley: Farm price, planted acreage, harvested acreage, production, and yield, 1951 to date 1/

Year beginning Sept. 1	Corn: Farm price	Corn: Planted acreage	Corn: Harvested for grain	Corn: Production	Corn: Yield per harvested acre	Sorghum: Farm price	Sorghum: Planted acreage	Sorghum: Harvested for grain	Sorghum: Production	Sorghum: Yield per harvested acre
	$/bu.	---1,000 acres---		1,000 bushel	Bushels	$/cwt.	---1,000 acres---		1,000 bushels	Bushels
1951	1.66	83,275	71,191	2,628,937	36.9	2.36	15,028	8,544	162,863	19.1
1952	1.52	82,230	71,353	2,980,793	41.8	2.82	12,289	5,326	90,741	17.0
1953	1.48	81,574	70,738	2,881,801	40.7	2.36	14,590	6,295	115,719	18.4
1954	1.43	82,185	68,668	2,707,913	39.4	2.25	20,148	11,718	235,575	20.1
1955	1.35	80,932	68,462	2,872,959	42.0	1.74	23,921	12,891	242,638	18.8
1956	1.29	77,828	64,877	3,075,336	47.4	2.05	21,384	9,209	204,881	22.2
1957	1.11	73,180	63,065	3,045,355	48.3	1.74	26,886	19,682	567,506	28.8
1958	1.12	73,351	63,549	3,356,205	52.8	1.78	20,675	16,524	581,012	35.2
1959	1.05	82,742	72,091	3,824,598	53.1	1.53	19,508	15,406	555,441	36.1
1960	1.00	81,425	71,422	3,906,949	54.7	1.49	19,598	15,601	619,954	39.7
1961	1.10	65,919	57,634	3,597,803	62.4	1.80	14,294	10,985	480,208	43.7
1962	1.12	65,017	55,726	3,606,311	64.7	1.82	15,060	11,571	510,284	44.1
1963	1.11	68,771	59,227	4,019,238	67.9	1.74	17,516	13,326	585,394	43.9
1964	1.17	65,823	55,369	3,484,253	62.9	1.88	16,770	11,742	489,796	41.7
1965	1.16	65,171	55,392	4,102,867	74.1	1.76	17,079	13,029	672,698	51.6
1966	1.24	66,347	57,002	4,167,608	73.1	1.82	16,372	12,813	714,992	55.8
1967	1.03	71,156	60,694	4,860,372	80.1	1.77	18,945	14,988	755,344	50.4
1968	1.08	65,126	55,980	4,449,542	79.5	1.69	17,793	13,890	731,277	52.6
1969	1.16	64,264	54,574	4,687,057	85.9	1.91	17,231	13,437	729,919	54.3
1970	1.33	66,863	57,358	4,152,243	72.4	2.04	16,957	13,568	683,179	50.4
1971	1.08	74,179	64,123	5,646,260	88.1	1.86	20,547	16,142	867,997	53.8
1972	1.57	67,126	57,513	5,579,832	97.0	2.45	17,035	13,212	801,350	60.7
1973	2.55	72,253	62,143	5,670,712	91.3	3.82	18,994	15,700	923,224	58.8
1974	3.02	77,935	65,405	4,701,402	71.9	4.95	17,588	13,809	622,711	45.1
1975	2.54	78,719	67,625	5,840,757	86.4	4.23	18,080	15,403	754,354	49.0
1976	2.15	84,588	71,506	6,289,169	88.0	3.62	18,143	14,466	710,797	49.1
1977	2.02	84,328	71,614	6,505,041	90.8	3.25	16,636	13,797	780,944	56.6
1978	2.25	81,675	71,930	7,267,927	101.0	3.59	16,197	13,410	731,270	54.5
1979	2.48	81,394	72,400	7,928,139	109.5	4.19	15,277	12,901	807,422	62.6
1980	3.12	84,043	72,961	6,639,396	91.0	5.19	15,639	12,513	579,343	46.3
1981	2.47	84,097	74,524	8,118,650	108.9	4.01	15,930	13,677	875,835	64.0
1982	2.55	81,857	72,719	8,235,101	113.2	4.41	16,028	14,137	835,083	59.1
1983	3.21	60,207	51,479	4,174,251	81.1	4.89	11,880	10,001	487,521	48.7
1984	2.63	80,517	71,897	7,672,130	106.7	4.15	17,254	15,355	866,241	56.4
1985	2.23	83,398	75,209	8,875,453	118.0	3.45	18,285	16,782	1,120,271	66.8
1986 2/	1.50	76,580	68,907	8,225,764	119.4	2.45	15,339	13,862	938,869	67.7
1987	1.94	66,200	59,505	7,131,300	119.8	3.04	11,756	10,531	730,809	69.4
1988	2.54	67,717	58,250	4,928,681	84.6	4.05	10,343	9,042	576,686	63.8
1989	2.36	72,221	64,703	7,525,493	116.3	3.75	12,642	11,103	615,420	55.4
1990	2.28	74,171	66,952	7,934,028	118.5	3.79	10,535	9,089	573,303	63.1
1991	2.37	75,951	68,847	7,475,480	108.6	4.02	11,064	9,870	584,860	59.3
1992	2.07	79,340	72,162	9,481,688	131.4	3.37	13,277	12,150	884,010	72.8
1993 3/	2.50	73,323	62,991	6,344,045	100.7	4.13	10,492	9,486	567,867	59.9
1994 4/	1.90-2.30	78,767	71,757	9,602,340	133.8	3.04-3.75	10,199	9,299	640,380	68.9

See footnotes at end of table.

Continued--

Appendix table 1--Corn, sorghum, oats, barley: Farm price, planted acreage, harvested acreage, production, and yield, 1951 to date 1/--Continued

Year beginning June 1	Oats: Farm price	Oats: Planted acreage	Oats: Harvested for grain	Oats: Production	Oats: Yield per harvested acre	Barley: Farm price	Barley: Planted acreage	Barley: Harvested for grain	Barley: Production	Barley: Yield per harvested acre
	$/bu.	---1,000 acres---		1,000 bushel	Bushels	$/cwt.	---1,000 acres---		1,000 bushels	Bushels
1951	0.82	41,015	35,233	1,277,647	36.3	1.26	10,790	9,424	257,213	27.3
1952	0.79	42,341	37,012	1,217,433	32.9	1.37	9,190	8,236	228,168	27.7
1953	0.74	43,220	37,536	1,153,205	30.7	1.17	9,615	8,680	246,723	28.4
1954	0.71	46,898	40,551	1,409,601	34.8	1.09	14,740	13,370	379,254	28.4
1955	0.60	47,494	39,027	1,495,978	38.3	0.92	16,293	14,523	403,065	27.8
1956	0.69	44,205	33,333	1,151,398	34.5	0.99	14,732	12,852	376,661	29.3
1957	0.61	41,840	34,065	1,289,880	37.9	0.89	16,398	14,872	442,761	29.8
1958	0.58	37,699	31,247	1,401,410	44.8	0.90	16,150	14,791	477,368	32.3
1959	0.65	35,064	27,758	1,050,051	37.8	0.86	16,766	14,869	420,203	28.3
1960	0.60	31,419	26,588	1,153,332	43.4	0.84	15,527	13,856	429,005	31.0
1961	0.64	32,314	23,886	1,010,314	42.3	0.98	15,623	12,806	392,441	30.6
1962	0.62	29,500	22,377	1,012,197	45.2	0.92	14,380	12,214	427,726	35.0
1963	0.62	28,054	21,308	965,510	45.3	0.90	13,452	11,236	392,833	35.0
1964	0.63	25,634	19,759	852,257	43.1	0.95	11,652	10,277	386,059	37.6
1965	0.62	24,046	18,522	929,554	50.2	1.02	10,123	9,166	393,055	42.9
1966	0.67	23,343	17,877	803,324	44.9	1.06	11,184	10,250	392,108	38.3
1967	0.66	20,719	16,110	793,800	49.3	1.01	10,077	9,230	373,745	40.5
1968	0.60	23,342	17,708	950,689	53.7	0.92	10,486	9,732	426,151	43.8
1969	0.58	23,561	17,971	965,863	53.7	0.89	10,291	9,557	427,055	44.7
1970	0.62	24,410	18,594	915,236	49.2	0.97	10,476	9,712	416,091	42.8
1971	0.60	21,831	15,705	878,079	55.9	0.99	11,061	10,104	462,423	45.8
1972	0.72	19,990	13,410	690,616	51.5	1.21	10,567	9,645	421,719	43.7
1973	1.18	18,605	13,770	659,136	47.9	2.14	11,045	10,295	417,434	40.5
1974	1.53	17,013	12,608	600,655	47.6	2.81	8,713	7,930	298,669	37.7
1975	1.46	16,434	13,038	638,960	49.0	2.42	9,373	8,617	379,162	44.0
1976	1.56	16,620	11,834	540,441	45.7	2.25	9,301	8,439	383,007	45.4
1977	1.09	17,732	13,485	752,774	55.8	1.78	10,778	9,728	427,784	44.0
1978	1.20	16,407	11,126	581,657	52.3	1.92	9,989	9,248	454,759	49.2
1979	1.33	13,960	9,682	526,748	54.4	2.27	8,116	7,527	383,201	50.9
1980	1.72	13,381	8,657	458,792	53.0	2.79	8,320	7,260	361,135	49.7
1981	1.88	13,632	9,407	509,529	54.2	2.48	9,618	9,038	473,512	52.4
1982	1.49	13,951	10,258	592,630	57.8	2.18	9,549	9,013	515,935	57.2
1983	1.62	20,289	9,062	476,471	52.6	2.47	10,411	9,731	508,269	52.3
1984	1.67	12,414	8,163	473,661	58.0	2.29	11,934	11,218	598,034	53.3
1985	1.23	13,235	8,147	518,490	63.6	1.98	13,139	11,591	590,213	50.9
1986	1.21	14,671	6,840	384,996	56.3	1.61	13,024	11,974	608,532	50.8
1987	1.56	17,907	6,888	373,713	54.3	1.81	10,929	9,957	521,499	52.4
1988	2.61	13,910	5,533	217,600	39.3	2.80	9,831	7,636	289,994	38.0
1989	1.49	12,085	6,882	373,587	54.3	2.42	9,125	8,313	404,203	48.6
1990	1.14	10,423	5,945	357,524	60.1	2.14	8,221	7,529	422,196	56.1
1991	1.21	8,654	4,806	243,451	50.7	2.10	8,941	8,413	464,326	55.2
1992	1.32	7,961	4,492	294,764	65.6	2.04	7,809	7,325	457,910	62.5
1993 3/	1.36	7,944	3,798	206,428	54.4	1.99	7,826	6,791	400,225	58.9
1994 4/	1.15-1.35	6,644	4,018	229,717	57.2	1.85-2.15	7,174	6,679	375,318	56.2

1/ Revised prices received by farmers, 1979 to date reflecting January 30, 1987, Agricultural Prices report. U.S. average prices based on U.S. monthly prices weighted by monthly marketings. Prices do not include an allowance for loans outstanding and government purchases. 2/ Crop year began October 1 prior to 1986. 3/ Preliminary. 4/ Projected as of October 1994.

Source: Agricultural Statistics Board, National Agricultural Statistics Service, USDA.

Appendx table 2--Foreign coarse grains: Supply and disappearance, 1978/79-1994/95 1/

Year	Beginning stocks	Production	Feed	Total Disappearance	Imports	Adjusted imports 2/	Ending stocks
	Million metric tons						
Corn:							
1978/79	40.8	207.5	138.3	260.0	69.8	NA	42.0
1979/80	42.0	223.9	160.4	280.2	79.3	73.9	46.7
1980/81	46.7	239.9	169.8	297.7	79.1	78.1	50.1
1981/82	50.1	235.2	177.9	291.5	77.9	67.3	44.6
1982/83	44.6	230.7	175.7	281.6	72.9	63.3	39.9
1983/84	39.9	241.7	168.9	288.8	64.2	61.1	40.7
1984/85	40.7	264.3	185.1	303.5	72.5	66.5	48.5
1985/86	48.5	253.1	186.4	290.2	61.6	54.2	42.3
1986/87	42.3	266.3	194.1	307.7	59.5	56.6	38.8
1987/88	38.8	269.3	200.1	313.7	63.0	56.6	40.4
1988/89	40.4	275.4	211.2	326.8	74.1	65.5	40.3
1989/90	40.3	269.3	214.3	331.2	81.5	74.4	38.5
1990/91	38.5	276.3	196.1	317.2	61.7	59.1	41.3
1991/92	41.3	297.0	210.3	325.2	73.4	62.2	52.9
1992/93	52.9	292.0	210.2	335.9	64.3	61.9	51.1
1993/94 3/	51.1	306.6	219.0	343.5	61.7	54.8	47.3
1994/95 4/	47.3	302.0	228.5	349.3	66.7	60.5	41.2
Sorghum:							
1978/79	7.4	45.0	22.0	49.9	10.9	NA	7.4
1979/80	7.4	41.0	21.5	49.8	12.4	11.6	7.0
1980/81	7.0	44.6	23.1	50.8	12.8	14.1	8.2
1981/82	8.2	48.2	28.3	55.5	14.3	13.7	7.5
1982/83	7.5	43.9	25.0	50.5	12.3	11.6	6.2
1983/84	6.2	46.2	25.6	52.0	13.0	13.0	6.6
1984/85	6.6	43.8	25.8	51.9	12.8	13.1	6.1
1985/86	6.1	41.7	24.5	47.2	9.6	8.8	5.0
1986/87	5.0	40.4	22.9	46.2	7.9	7.8	4.3
1987/88	4.3	37.8	22.3	45.0	8.6	8.3	3.0
1988/89	3.0	39.8	23.1	45.9	11.0	10.8	4.8
1989/90	4.8	39.6	21.7	47.4	9.2	9.0	4.7
1990/91	4.7	38.4	21.1	45.0	7.9	7.8	4.0
1991/92	4.0	36.7	22.2	43.5	9.8	9.4	4.6
1992/93	4.6	42.0	22.1	48.6	8.7	8.7	5.1
1993/94 3/	5.1	38.7	20.4	46.4	6.9	6.7	2.4
1994/95 4/	2.4	41.0	21.7	47.1	6.4	6.3	1.7
Barley:							
1978/79	17.5	165.7	118.6	162.9	13.5	NA	20.7
1979/80	20.7	145.7	113.8	151.7	16.6	11.1	15.7
1980/81	15.7	149.3	107.6	150.7	16.2	13.8	16.2
1981/82	16.2	139.2	105.4	143.8	20.3	13.9	13.6
1982/83	13.6	150.0	108.4	147.1	17.2	13.1	17.2
1983/84	17.2	147.2	115.8	154.2	20.2	16.4	12.0
1984/85	12.0	157.4	115.9	152.4	22.9	17.9	18.4
1985/86	18.4	159.9	120.5	156.3	22.1	18.2	22.3
1986/87	22.3	163.5	125.8	162.6	24.1	18.4	26.0
1987/88	26.0	162.5	124.6	166.1	23.7	15.7	24.8
1988/89	24.8	156.5	116.4	155.6	21.2	16.9	27.2
1989/90	27.2	156.0	120.7	159.3	21.9	15.5	25.4
1990/91	25.4	168.8	123.0	166.3	22.9	18.1	29.3
1991/92	29.3	159.0	114.5	159.3	23.3	18.1	30.5
1992/93	30.5	155.7	111.2	154.3	19.9	15.1	33.4
1993/94 3/	33.4	160.2	114.6	160.0	20.3	15.3	33.5
1994/95 4/	33.5	153.7	114.1	159.1	19.4	14.0	28.0
Total coarse grains: 5/							
1978/79	75.0	522.1	331.5	575.3	96.7	92.8	80.8
1979/80	80.8	497.1	338.1	571.0	110.7	99.2	77.3
1980/81	77.3	524.8	343.5	591.1	110.2	108.1	82.1
1981/82	82.1	512.2	353.6	580.5	114.7	97.5	73.1
1982/83	73.1	524.6	359.0	576.3	103.7	89.7	73.6
1983/84	73.6	540.4	365.9	598.3	99.0	92.9	71.2
1984/85	71.2	569.2	378.8	609.0	110.8	99.6	86.7
1985/86	86.7	557.5	387.7	597.2	95.1	82.2	82.3
1986/87	82.3	570.3	395.4	615.2	93.1	82.8	82.6
1987/88	82.6	567.3	403.6	622.8	97.3	82.6	80.9
1988/89	80.9	571.4	403.9	627.3	108.1	94.5	84.9
1989/90	84.9	569.6	412.0	640.4	114.6	100.4	82.5
1990/91	82.5	591.0	395.8	630.8	94.1	86.6	92.8
1991/92	92.8	584.5	397.1	621.4	108.7	92.2	103.2
1992/93	103.2	585.0	394.5	634.5	96.2	88.6	103.3
1993/94 3/	103.3	597.8	400.3	641.0	90.6	79.3	96.3
1994/95 4/	96.3	586.4	408.3	646.5	94.2	82.4	81.3

NA = Not available.
1/ Aggregated on basis of local marketing years, except for adjusted imports. 2/ Based on Oct./Sept. trade year and excludes intra-EC trade. 3/ Preliminary. 4/ Forecast. 5/ Includes oats, rye, millet, and mixed grains.

Source: Compiled from World Grain Situation and Outlook, Foreign Agricultural Service, and USDA data.

Appendix table 3--Feed grains: Marketing year supply and disappearance, 1975/76-1994/95 1/

Year 2/	Supply				Disappearance						Ending Stocks		
					Domestic use								
	Beginning stocks	Production	Imports	Total	Food, alcohol, and industrial	Seed	Feed and residual	Total	Exports	Total disappearance	Govt. owned	Privately owned 3/	Total
	Million metric tons												
1975/76	21.1	185.1	0.3	206.5	16.4	1.5	115.7	133.7	48.8	182.5	0.4	23.6	23.9
1976/77	23.9	194.0	0.3	218.2	17.1	1.6	112.8	131.5	49.8	181.2	0.0	37.0	37.0
1977/78	37.0	205.3	0.2	242.5	18.1	1.5	117.4	137.0	55.2	192.2	0.2	50.1	50.3
1978/79	50.3	221.5	0.2	272.0	19.1	1.3	134.6	155.1	59.2	214.3	3.8	54.0	57.7
1979/80	57.7	237.9	0.2	295.8	20.0	1.3	140.1	161.4	70.6	232.0	7.9	55.9	63.8
1980/81	63.8	197.9	0.2	261.9	20.6	1.4	125.7	147.7	70.0	217.6	7.3	36.9	44.2
1981/82	44.2	246.2	0.2	290.6	22.4	1.4	129.4	153.1	59.5	212.6	8.3	69.7	78.0
1982/83	78.0	250.2	0.2	328.4	25.6	1.4	140.3	167.3	52.6	219.9	33.5	75.0	108.6
1983/84	108.6	136.4	0.6	245.5	27.3	1.4	121.2	149.9	56.1	205.9	8.0	31.6	39.6
1984/85	39.6	236.8	0.7	277.1	30.9	1.5	131.1	163.5	56.1	219.6	8.9	48.6	57.5
1985/86	57.5	274.3	0.8	332.6	33.5	1.5	135.1	170.0	36.1	206.2	20.4	106.0	126.4
1986/87	126.4	251.6	0.7	378.7	35.0	1.4	144.3	180.7	45.9	226.6	48.7	103.4	152.1
1987/88	152.1	216.5	1.0	369.6	35.9	1.3	146.7	183.9	52.1	236.0	34.1	99.5	133.6
1988/89	133.6	149.3	1.2	284.2	37.5	1.2	118.5	157.2	61.1	218.3	18.6	47.3	65.9
1989/90	65.9	221.0	1.3	288.2	39.2	1.1	132.7	173.0	69.7	242.7	10.5	35.0	45.5
1990/91	45.5	230.5	1.3	277.3	39.5	1.1	137.5	178.1	51.5	229.6	11.2	36.5	47.7
1991/92	47.7	218.4	2.1	268.2	41.7	1.1	141.7	184.5	49.7	234.2	3.2	30.7	34.0
1992/93	34.0	277.5	1.2	312.7	43.1	1.1	154.4	198.6	51.1	249.7	1.6	61.4	63.1
1993/94 4/	63.1	187.3	3.6	254.0	45.1	1.1	140.1	186.3	40.3	226.6	1.3	26.1	27.4
1994/95 5/	27.4	271.7	2.7	301.7	----48.0----		153.3	201.3	48.1	249.3			52.4

1/ Aggregated data on corn, sorghum, barley, and oats. 2/ The marketing year for corn and sorghum begins September 1; for oats and barley, June 1. 3/ Includes total government loans (original and reseal). 4/ Preliminary. 5/ Projected as of October 1994.

Appendix table 4--Corn: Marketing year supply and disappearance, 1977/78-1994/95

Year beginning Sept. 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Export	Disappearance: Total disappearance	Ending Stocks: Govt. owned	Ending Stocks: Privately owned 1/	Ending Stocks: Total	Stocks to use ratio	Average farm price
	Million bushels														$/bu.
1977/78	1,136	6,505	2	7,643	562	20	3,730	4,311	1,896	6,207	4	1,432	1,436	23.1	2.02
1978/79	1,436	7,268	1	8,705	589	20	4,274	4,882	2,113	6,995	101	1,609	1,710	24.4	2.25
1979/80	1,710	7,928	1	9,638	620	20	4,563	5,203	2,402	7,604	260	1,774	2,034	26.8	2.48
1980/81	2,034	6,639	1	8,675	639	20	4,232	4,891	2,391	7,282	242	1,150	1,392	19.1	3.12
1981/82	1,392	8,119	1	9,511	714	19	4,245	4,978	1,997	6,975	280	2,257	2,537	36.4	2.47
1982/83	2,537	8,235	0	10,772	840	15	4,573	5,428	1,821	7,249	1,143	2,380	3,523	48.6	2.55
1983/84	3,523	4,174	2	7,699	911	19	3,876	4,806	1,886	6,693	202	805	1,006	15.0	3.21
1984/85	1,006	7,672	2	8,680	1,046	21	4,115	5,182	1,850	7,032	225	1,423	1,648	23.4	2.63
1985/86	1,648	8,875	10	10,534	1,133	20	4,114	5,267	1,227	6,494	546	3,494	4,040	62.2	2.23
1986/87	4,040	8,226	2	12,267	1,207	17	4,669	5,893	1,492	7,385	1,443	3,439	4,882	66.1	1.50
1987/88	4,882	7,131	3	12,016	1,226	17	4,798	6,041	1,716	7,757	835	3,424	4,259	54.9	1.94
1988/89	4,259	4,929	3	9,191	1,275	18	3,941	5,234	2,026	7,260	363	1,568	1,930	26.6	2.54
1989/90	1,930	7,525	2	9,458	1,337	19	4,389	5,745	2,368	8,113	233	1,111	1,344	16.6	2.36
1990/91	1,344	7,934	3	9,282	1,354	19	4,663	6,036	1,725	7,761	371	1,150	1,521	19.6	2.28
1991/92	1,521	7,475	20	9,016	1,434	20	4,878	6,332	1,584	7,916	113	987	1,100	13.9	2.37
1992/93	1,100	9,482	7	10,589	1,493	19	5,301	6,813	1,663	8,476	56	2,057	2,113	24.9	2.07
1993/94 2/	2,113	6,344	21	8,478	1,568	20	4,711	6,299	1,328	7,628	45	805	850	11.1	2.50
1994/95 3/	850	9,602	5	10,457	-----1,660-----		5,350	7,010	1,625	8,635			1,822	21.1	1.90-2.30

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected.

Appendix table 5--Sorghum: Marketing year supply and disappearance, 1977/78-1994/95

Year beginning Sept. 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Export	Disappearance: Total disappearance	Ending Stocks: Govt. owned	Ending Stocks: Privately owned 1/	Ending Stocks: Total	Stocks to use ratio	Average farm price
	Million bushels														$/bu.
1977/78	117	781	0	898	9	2	448	459	223	682	5	211	216	31.7	1.82
1978/79	216	731	0	948	10	2	538	550	190	740	44	164	208	28.1	2.01
1979/80	208	807	0	1,015	10	2	495	508	330	837	46	132	178	21.2	2.35
1980/81	178	579	0	757	9	2	323	334	293	627	42	89	130	20.8	2.91
1981/82	130	876	0	1,006	9	2	417	428	260	688	42	277	319	46.3	2.25
1982/83	319	835	0	1,154	8	2	495	505	210	715	172	268	439	61.5	2.47
1983/84	439	488	0	927	8	2	385	395	244	639	103	185	288	45.0	2.74
1984/85	288	866	0	1,154	15	2	539	557	297	854	112	188	300	35.2	2.32
1985/86	300	1,120	0	1,421	26	2	664	692	178	870	207	344	551	63.4	1.93
1986/87	551	939	0	1,490	10	2	536	548	198	747	409	334	743	99.6	1.37
1987/88	743	731	0	1,474	24	1	555	580	232	811	464	199	663	81.7	1.70
1988/89	663	577	0	1,239	21	2	466	488	311	800	341	99	440	55.0	2.27
1989/90	440	615	0	1,055	14	1	517	532	303	835	163	57	220	26.3	2.10
1990/91	220	573	0	793	7	1	410	418	232	651	65	78	143	21.9	2.12
1991/92	143	585	0	727	7	2	374	383	292	674	8	45	53	7.9	2.25
1992/93	53	884	0	937	6	1	478	485	277	762	4	171	175	23.0	1.89
1993/94 2/	175	568	0	743	6	1	486	494	202	695	1	47	48	6.8	2.31
1994/95 3/	48	640	0	688	----8.0----		400	408	215	623			65	10.4	1.70-2.10

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected.

Appendix table 6--Barley: Marketing year supply and disappearance, 1977/78-1994/95

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending Stocks: Govt. owned	Ending Stocks: Privately owned 1/	Ending Stocks: Total	Stocks to use ratio	Average farm price
	Million bushels														$/bu.
1977/78	126	428	6	561	139	17	177	332	55	388	0	173	173	44.7	1.78
1978/79	173	455	7	635	154	14	215	382	25	407	3	226	228	56.1	1.92
1979/80	228	383	7	618	158	14	202	373	53	426	3	189	192	45.1	2.27
1980/81	192	361	6	559	162	16	168	346	76	422	3	134	137	32.6	2.79
1981/82	137	474	7	618	158	16	198	372	98	470	3	145	148	31.5	2.48
1982/83	148	516	8	672	157	17	237	411	44	455	6	211	217	47.6	2.18
1983/84	217	508	5	730	155	20	278	452	89	541	12	178	189	35.0	2.47
1984/85	189	598	7	795	153	21	301	476	72	547	16	232	247	45.2	2.29
1985/86	247	590	6	844	156	21	319	497	20	517	57	270	327	63.3	1.98
1986/87	327	609	7	942	157	18	298	472	134	606	76	261	336	55.5	1.61
1987/88	336	521	11	869	158	16	253	427	121	548	50	271	321	58.6	1.81
1988/89	321	290	11	622	160	15	171	346	79	425	30	166	196	46.2	2.80
1989/90	196	404	13	614	162	13	193	369	84	453	19	142	161	35.5	2.42
1990/91	161	422	13	596	161	15	205	380	81	461	8	127	135	29.4	2.14
1991/92	135	464	25	624	163	13	225	401	94	496	7	122	129	25.9	2.10
1992/93	129	458	11	598	158	13	195	366	80	447	5	146	151	33.8	2.04
1993/94 2/	151	400	71	623	163	12	243	418	66	484	5	134	139	28.7	1.99
1994/95 3/	139	375	65	579	----175----		215	390	60	450			129	28.7	1.85-2.15

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected.

Appendix table 7--Oats: Marketing year supply and disappearance, 1977/78-1994/95

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending Stocks: Govt. owned	Ending Stocks: Privately owned 1/	Ending Stocks: Total	Stocks to use ratio	Average farm price
	Million bushels														$/bu.
1977/78	164	753	2	919	42	39	515	596	10	606	0	313	313	51.7	1.09
1978/79	313	582	1	895	41	34	530	605	10	615	3	277	280	45.5	1.20
1979/80	280	527	1	808	41	32	495	568	3	571	3	234	236	41.4	1.33
1980/81	236	459	1	696	41	33	437	511	9	519	2	175	177	34.1	1.72
1981/82	177	510	1	688	41	34	458	533	3	536	1	151	152	28.3	1.88
1982/83	152	593	4	748	42	43	442	527	1	528	1	219	220	41.6	1.49
1983/84	220	476	30	726	41	30	474	544	1	545	2	179	181	33.2	1.62
1984/85	181	474	34	688	41	31	436	508	0	508	1	179	180	35.4	1.67
1985/86	180	518	27	726	44	33	464	541	1	542	2	182	184	33.9	1.23
1986/87	184	385	32	601	45	38	384	467	1	468	4	129	133	28.3	1.21
1987/88	133	374	46	552	50	32	358	440	1	440	4	108	112	25.4	1.56
1988/89	112	218	63	392	73	27	194	294	1	294	2	96	98	33.4	2.61
1989/90	98	374	66	538	92	23	266	381	1	381	1	156	157	41.1	1.49
1990/91	157	358	63	578	101	19	286	406	1	407	0	171	171	42.1	1.14
1991/92	171	243	75	489	107	18	235	360	2	362	0	128	128	35.3	1.21
1992/93	128	295	55	477	107	18	234	359	6	364	0	113	113	31.1	1.32
1993/94 2/	113	206	107	426	110	15	193	318	3	321	0	106	106	32.9	1.36
1994/95 3/	106	230	80	415	----125----		175	300	2	302			113	37.5	1.15-1.35

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected.

Appendix table 8--Corn: Marketing year supply and disappearance, specified periods, 1977/78-1994/95

Year beginning September 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1977/78:													
Sept.-Nov.	1,135.6	6,505.0	0.6	7,641.3	138.9	0.0	1,016.6	1,155.5	399.1	1,554.6	0.2	6,086.5	6,086.7
Dec.-Feb.	6,086.7	---	0.7	6,087.4	128.6	0.0	1,069.3	1,197.9	407.9	1,605.8	0.4	4,481.2	4,481.6
Mar.-May	4,481.6	---	0.5	4,482.1	141.7	15.6	939.4	1,096.7	524.3	1,621.0	0.4	2,860.7	2,861.1
June-Aug.	2,861.1	---	0.6	2,861.7	152.3	3.9	704.4	860.6	565.1	1,425.8	3.5	1,432.4	1,435.9
Mkt. year	1,135.6	6,505.0	2.4	7,643.0	561.5	19.5	3,729.7	4,310.7	1,896.4	6,207.1	3.5	1,432.4	1,435.9
1978/79:													
Sept.-Nov.	1,435.9	7,267.9	0.1	8,704.0	146.7	0.0	1,160.2	1,306.9	468.8	1,775.8	60.3	6,867.9	6,928.2
Dec.-Feb.	6,928.2	---	0.3	6,928.5	135.1	0.0	1,229.0	1,364.1	413.3	1,777.4	95.2	5,055.9	5,151.1
Mar.-May	5,151.1	---	0.3	5,151.4	157.5	15.6	1,136.4	1,309.5	554.6	1,864.2	100.6	3,186.6	3,287.2
June-Aug.	3,287.2	---	0.4	3,287.6	149.2	3.9	748.7	901.8	676.3	1,578.1	100.5	1,609.0	1,709.5
Mkt. year	1,435.9	7,267.9	1.2	8,705.0	588.5	19.5	4,274.4	4,882.4	2,113.1	6,995.5	100.5	1,609.0	1,709.5
1979/80:													
Sept.-Nov.	1,709.5	7,928.1	0.2	9,637.9	151.5	0.0	1,271.0	1,422.5	621.3	2,043.8	99.6	7,494.5	7,594.1
Dec.-Feb.	7,594.1	---	0.2	7,594.3	140.3	0.0	1,299.2	1,439.5	597.7	2,037.3	100.1	5,456.9	5,557.0
Mar.-May	5,557.0	---	0.2	5,557.2	159.6	16.0	1,149.5	1,325.1	587.8	1,912.9	213.5	3,430.8	3,644.3
June-Aug.	3,644.3	---	0.1	3,644.4	168.1	4.0	843.3	1,015.4	594.7	1,610.1	260.1	1,774.2	2,034.3
Mkt. year	1,709.5	7,928.1	0.7	9,638.4	619.5	20.0	4,563.0	5,202.5	2,401.5	7,604.1	260.1	1,774.2	2,034.3
1980/81:													
Sept.-Nov.	2,034.3	6,639.4	0.3	8,674.0	154.5	0.0	1,235.7	1,390.2	687.9	2,078.1	256.7	6,339.2	6,595.9
Dec.-Feb.	6,595.9	---	0.0	6,595.9	144.7	0.0	1,142.8	1,287.5	646.0	1,933.5	252.3	4,410.1	4,662.4
Mar.-May	4,662.4	---	0.0	4,662.4	166.4	16.2	1,092.4	1,275.0	614.0	1,888.9	251.6	2,521.9	2,773.5
June-Aug.	2,773.5	---	0.5	2,774.0	173.4	4.0	761.2	938.6	443.3	1,381.9	241.8	1,150.3	1,392.1
Mkt. year	2,034.3	6,639.4	0.8	8,674.5	639.0	20.2	4,232.1	4,891.3	2,391.1	7,282.4	241.8	1,150.3	1,392.1
1981/82:													
Sept.-Nov.	1,392.1	8,118.7	0.1	9,510.9	173.3	0.0	1,217.4	1,390.7	519.1	1,909.8	243.6	7,357.5	7,601.1
Dec.-Feb.	7,601.1	---	0.2	7,601.3	165.4	0.0	1,199.2	1,364.6	470.2	1,834.9	259.3	5,507.1	5,766.4
Mar.-May	5,766.4	---	0.0	5,766.4	185.3	16.0	1,089.2	1,290.5	595.8	1,886.3	269.7	3,610.4	3,880.1
June-Aug.	3,880.1	---	0.2	3,880.3	189.9	3.4	738.8	932.1	411.6	1,343.7	280.1	2,256.5	2,536.6
Mkt. year	1,392.1	8,118.7	0.6	9,511.3	714.0	19.4	4,244.5	4,977.9	1,996.8	6,974.7	280.1	2,256.5	2,536.6
1982/83:													
Sept.-Nov.	2,536.6	8,235.1	0.2	10,771.9	207.5	0.0	1,215.0	1,422.5	443.1	1,865.6	372.0	8,534.3	8,906.3
Dec.-Feb.	8,906.3	---	0.1	8,906.4	192.4	0.0	1,305.2	1,497.6	509.6	2,007.2	470.8	6,428.4	6,899.2
Mar.-May	6,899.2	---	0.1	6,899.3	216.2	11.6	1,272.2	1,500.1	475.3	1,975.4	491.7	4,432.2	4,923.9
June-Aug.	4,923.9	---	0.1	4,924.0	223.9	2.9	780.8	1,007.6	393.3	1,400.9	1,142.7	2,380.4	3,523.1
Mkt. year	2,536.6	8,235.1	0.5	10,772.2	840.0	14.5	4,573.2	5,427.7	1,821.3	7,249.1	1,142.7	2,380.4	3,523.1

See footnotes at end of table.

Continued--

Appendix table 8--Corn: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning September 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1983/84:													
Sept.-Nov.	3,523.1	4,174.3	0.4	7,697.7	227.4	0.0	1,325.3	1,552.7	493.4	2,046.0	1,227.0	4,424.7	5,651.7
Dec.-Feb.	5,651.7	---	0.3	5,652.0	212.3	0.0	1,068.8	1,281.1	505.9	1,787.0	1,214.0	2,651.0	3,865.0
Mar.-May	3,865.0	---	0.5	3,865.5	235.7	16.8	954.5	1,207.0	513.4	1,720.4	195.0	1,950.1	2,145.1
June-Aug.	2,145.1	---	0.5	2,145.6	235.7	2.3	527.6	765.6	373.7	1,139.3	201.5	804.8	1,006.3
Mkt. year	3,523.1	4,174.3	1.7	7,699.1	911.0	19.1	3,876.3	4,806.4	1,886.4	6,692.8	201.5	804.8	1,006.3
1984/85:													
Sept.-Nov.	1,006.3	7,672.1	0.7	8,679.2	244.1	0.0	1,300.7	1,544.8	503.2	2,048.1	206.7	6,424.4	6,631.1
Dec.-Feb.	6,631.1	---	0.1	6,631.2	236.1	0.0	1,191.5	1,427.6	580.4	2,008.0	209.7	4,413.5	4,623.2
Mar.-May	4,623.2	---	0.8	4,624.0	277.4	17.0	1,019.4	1,313.8	474.7	1,788.5	221.7	2,613.8	2,835.5
June-Aug.	2,835.5	---	0.1	2,835.6	288.4	4.2	602.9	895.5	291.9	1,187.4	224.9	1,423.3	1,648.2
Mkt. year	1,006.3	7,672.1	1.7	8,680.2	1,046.0	21.2	4,114.5	5,181.7	1,850.3	7,032.0	224.9	1,423.3	1,648.2
1985/86:													
Sept.-Nov.	1,648.2	8,875.5	0.9	10,524.5	276.3	0.0	1,218.7	1,495.0	414.8	1,909.8	388.6	8,226.1	8,614.7
Dec.-Feb.	8,614.7	---	1.0	8,615.7	262.4	0.0	1,306.0	1,568.3	460.2	2,028.6	509.4	6,077.7	6,587.1
Mar.-May	6,587.1	---	2.2	6,589.3	291.2	16.1	1,090.6	1,397.9	201.4	1,599.3	550.9	4,439.1	4,990.0
June-Aug.	4,990.0	---	5.9	4,995.9	303.1	3.4	499.0	805.5	150.9	956.4	545.7	3,493.8	4,039.5
Mkt. year	1,648.2	8,875.5	9.9	10,533.6	1,133.0	19.5	4,114.2	5,266.7	1,227.3	6,494.1	545.7	3,493.8	4,039.5
1986/87:													
Sept.-Nov.	4,039.5	8,225.8	0.7	12,266.0	287.6	0.0	1,354.7	1,642.3	318.2	1,960.5	968.2	9,337.3	10,305.5
Dec.-Feb.	10,305.5	---	0.2	10,305.7	277.3	0.0	1,467.3	1,744.6	312.8	2,057.5	1,362.2	6,886.0	8,248.2
Mar.-May	8,248.2	---	0.4	8,248.6	318.4	16.4	1,085.6	1,420.4	496.1	1,916.4	1,491.5	4,840.7	6,332.2
June-Aug.	6,332.2	---	0.4	6,332.6	323.5	0.3	761.8	1,085.6	365.3	1,450.9	1,443.2	3,438.5	4,881.7
Mkt. year	4,039.5	8,225.8	1.8	12,267.0	1,206.8	16.7	4,669.4	5,892.9	1,492.5	7,385.3	1,443.2	3,438.5	4,881.7
1987/88:													
Sept.-Nov.	4,881.7	7,131.3	0.6	12,013.6	295.4	0.0	1,551.6	1,847.0	395.6	2,242.6	1,683.4	8,087.6	9,771.0
Dec.-Feb.	9,771.0	---	0.7	9,771.7	285.3	0.0	1,446.1	1,731.4	404.7	2,136.1	1,767.7	5,867.9	7,635.6
Mar.-May	7,635.6	---	1.4	7,637.0	318.6	16.7	952.7	1,288.1	509.7	1,797.7	1,304.9	4,534.3	5,839.2
June-Aug.	5,839.2	---	0.8	5,840.0	326.7	0.5	847.2	1,174.5	406.4	1,580.9	835.0	3,424.1	4,259.1
Mkt. year	4,881.7	7,131.3	3.4	12,016.4	1,226.0	17.2	4,797.7	6,040.9	1,716.4	7,757.3	835.0	3,424.1	4,259.1
1988/89:													
Sept.-Nov.	4,259.1	4,928.7	0.6	9,188.4	305.2	0.0	1,340.9	1,646.1	470.8	2,116.8	611.0	6,460.6	7,071.6
Dec.-Feb.	7,071.6	---	0.6	7,072.2	294.9	0.0	1,071.5	1,366.4	501.8	1,868.2	465.0	4,738.9	5,203.9
Mar.-May	5,203.9	---	1.2	5,205.1	333.3	16.7	846.1	1,196.1	589.7	1,785.8	417.7	3,001.6	3,419.3
June-Aug.	3,419.3	---	0.4	3,419.7	341.6	1.7	682.5	1,025.8	463.4	1,489.2	362.5	1,567.9	1,930.4
Mkt. year	4,259.1	4,928.7	2.8	9,190.5	1,275.0	18.4	3,941.0	5,234.4	2,025.8	7,260.1	362.5	1,567.9	1,930.4

See footnotes at end of table.

Continued--

Appendix table 8--Corn: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning September 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1989/90:													
Sept.-Nov.	1,930.4	7,525.5	0.6	9,456.6	295.6	0.0	1,496.6	1,792.2	582.3	2,374.5	628.2	6,453.9	7,082.1
Dec.-Feb.	7,082.1	---	0.4	7,082.5	306.1	0.0	1,282.2	1,588.3	681.8	2,270.1	537.2	4,275.2	4,812.4
Mar.-May	4,812.4	---	0.6	4,813.0	366.1	16.7	986.5	1,369.2	600.6	1,969.8	299.3	2,543.9	2,843.2
June-Aug.	2,843.2	---	0.2	2,843.4	369.2	2.2	623.9	995.4	503.6	1,499.0	233.0	1,111.5	1,344.5
Mkt. year	1,930.4	7,525.5	1.9	9,457.8	1,337.0	18.9	4,389.2	5,745.1	2,368.2	8,113.4	233.0	1,111.5	1,344.5
1990/91:													
Sept.-Nov.	1,344.5	7,934.0	0.9	9,279.4	321.7	0.0	1,636.5	1,958.2	380.9	2,339.1	205.9	6,734.4	6,940.3
Dec.-Feb.	6,940.3	---	0.3	6,940.6	315.7	0.0	1,365.2	1,680.9	470.7	2,151.6	195.6	4,593.4	4,789.0
Mar.-May	4,789.0	---	0.8	4,789.8	351.5	17.6	975.1	1,344.2	453.6	1,797.8	435.9	2,556.1	2,992.0
June-Aug.	2,992.0	---	1.5	2,993.4	364.8	1.7	686.3	1,052.8	419.4	1,472.2	371.1	1,150.1	1,521.2
Mkt. year	1,344.5	7,934.0	3.4	9,281.9	1,353.7	19.3	4,663.1	6,036.1	1,724.6	7,760.7	371.1	1,150.1	1,521.2
1991/92:													
Sept.-Nov.	1,521.2	7,475.5	6.5	9,003.2	348.7	0.0	1,692.1	2,040.8	421.3	2,462.1	249.7	6,291.4	6,541.1
Dec.-Feb.	6,541.1	---	4.4	6,545.5	344.4	0.0	1,278.5	1,622.9	361.7	1,984.5	199.2	4,361.8	4,561.0
Mar.-May	4,561.0	---	5.4	4,566.4	368.5	19.9	1,068.0	1,456.4	371.5	1,827.8	147.2	2,591.4	2,738.6
June-Aug.	2,738.6	---	3.3	2,741.9	372.2	0.3	839.4	1,211.9	429.7	1,641.6	113.0	987.3	1,100.3
Mkt. year	1,521.2	7,475.5	19.6	9,016.4	1,433.8	20.2	4,877.9	6,331.9	1,584.1	7,916.1	113.0	987.3	1,100.3
1992/93:													
Sept.-Nov.	1,100.3	9,481.7	1.3	10,583.3	359.8	0.0	1,829.6	2,189.4	487.5	2,676.9	87.4	7,819.0	7,906.4
Dec.-Feb.	7,906.4	---	1.0	7,907.4	350.1	0.0	1,416.0	1,766.1	463.0	2,229.2	86.8	5,591.4	5,678.2
Mar.-May	5,678.2	---	2.0	5,680.2	386.5	16.4	1,156.6	1,559.5	411.3	1,970.8	64.4	3,645.0	3,709.4
June-Aug.	3,709.4	---	2.8	3,712.2	396.3	2.3	899.2	1,297.8	301.4	1,599.3	55.5	2,057.5	2,113.0
Mkt. year	1,100.3	9,481.7	7.1	10,589.1	1,492.7	18.7	5,301.4	6,812.8	1,663.3	8,476.1	55.5	2,057.5	2,113.0
1993/94:													
Sept.-Nov.	2,113.0	6,344.0	5.2	8,462.2	378.1	0.0	1,712.2	2,090.3	435.4	2,525.7	52.6	5,883.9	5,936.5
Dec.-Feb.	5,936.5	---	8.0	5,944.5	371.1	0.0	1,247.7	1,618.8	330.0	1,948.8	49.8	3,945.9	3,995.7
Mar.-May	3,995.7	---	6.3	4,002.0	399.2	19.5	953.6	1,372.3	269.8	1,642.1	47.8	2,312.1	2,359.9
June-Aug.	2,359.9	---	1.4	2,361.3	419.7	0.6	797.7	1,218.0	293.1	1,511.1	44.8	805.4	850.2
Mkt. year 2/	2,113.0	6,344.0	20.8	8,477.8	1,568.1	20.1	4,711.2	6,299.4	1,328.3	7,627.7	44.8	805.4	850.2
1994/95:													
Mkt. year 3/	850.2	9,602.3	5.0	10,457.5	-----1,660-----		5,350.0	7,010.0	1,625.0	8,635.0			1,822.5

--- = Not applicable.
1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected.

Appendix table 9--Sorghum: Marketing year supply and disappearance, specified periods, 1977/78-1994/95

Year beginning September 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1977/78:													
Sept.-Nov.	117.3	780.9	0.0	898.2	2.1	0.0	139.3	141.4	42.9	184.3	0.0	713.9	713.9
Dec.-Feb.	713.9	---	0.0	713.9	2.2	0.0	153.7	155.9	74.3	230.2	0.2	483.5	483.7
Mar.-May	483.7	---	0.0	483.7	2.8	1.4	100.7	104.9	59.7	164.6	0.3	318.8	319.1
June-Aug.	319.1	---	0.0	319.1	2.3	0.6	53.8	56.7	46.0	102.7	5.0	211.4	216.4
Mkt. year	117.3	780.9	0.0	898.3	9.4	2.0	447.7	459.1	222.8	681.9	5.0	211.4	216.4
1978/79:													
Sept.-Nov.	216.4	731.3	0.0	947.7	2.3	0.0	173.9	176.2	35.3	211.5	28.9	707.3	736.2
Dec.-Feb.	736.2	---	0.0	736.2	2.5	0.0	176.8	179.4	65.3	244.7	36.9	454.6	491.5
Mar.-May	491.5	---	0.0	491.5	2.8	1.3	115.2	119.3	50.0	169.3	42.8	279.4	322.2
June-Aug.	322.2	---	0.0	322.2	2.3	0.5	72.0	74.8	39.5	114.3	43.7	164.2	207.9
Mkt. year	216.4	731.3	0.0	947.7	10.0	1.8	537.9	549.7	190.1	739.8	43.7	164.2	207.9
1979/80:													
Sept.-Nov.	207.9	807.4	0.0	1,015.3	2.6	0.0	184.6	187.2	72.0	259.2	43.0	713.1	756.1
Dec.-Feb.	756.1	---	0.0	756.1	2.7	0.0	174.1	176.8	102.9	279.7	44.6	431.8	476.4
Mar.-May	476.4	---	0.0	476.4	3.0	1.4	102.2	106.6	92.3	198.8	45.6	232.0	277.6
June-Aug.	277.6	---	0.0	277.6	2.1	0.6	34.6	37.3	62.4	99.7	45.6	132.3	177.9
Mkt. year	207.9	807.4	0.0	1,015.3	10.4	2.0	495.3	507.7	329.7	837.4	45.6	132.3	177.9
1980/81:													
Sept.-Nov.	177.9	579.3	0.0	757.3	2.4	0.0	138.8	141.2	67.4	208.6	42.7	506.0	548.7
Dec.-Feb.	548.7	---	0.0	548.7	2.5	0.0	106.7	109.2	76.1	185.3	43.7	319.7	363.4
Mar.-May	363.4	---	0.0	363.4	2.3	1.4	107.1	110.8	68.0	178.8	43.8	140.8	184.6
June-Aug.	184.6	---	0.0	184.6	1.9	0.6	(29.9)	(27.4)	81.6	54.2	41.5	88.9	130.4
Mkt. year	177.9	579.3	0.0	757.3	9.1	2.0	322.6	333.7	293.2	626.9	41.5	88.9	130.4
1981/82:													
Sept.-Nov.	130.4	875.8	0.0	1,006.2	2.2	0.0	133.5	135.7	78.0	213.7	38.3	754.2	792.5
Dec.-Feb.	792.5	---	0.0	792.5	2.5	0.0	170.8	173.3	79.8	253.1	38.4	501.0	539.4
Mar.-May	539.4	---	0.0	539.4	2.1	1.4	109.2	112.7	47.1	159.8	38.3	341.3	379.6
June-Aug.	379.6	---	0.0	379.6	2.0	0.6	3.5	6.1	54.8	60.9	41.8	276.9	318.7
Mkt. year	130.4	875.8	0.0	1,006.3	8.8	2.0	417.2	428.0	259.6	687.6	41.8	276.9	318.7
1982/83:													
Sept.-Nov.	318.7	835.1	0.0	1,153.8	2.1	0.0	168.1	170.2	58.0	228.2	45.5	880.1	925.6
Dec.-Feb.	925.6	---	0.0	925.6	2.2	0.0	166.4	168.5	72.4	240.9	48.2	636.5	684.7
Mar.-May	684.7	---	0.0	684.7	1.7	0.9	119.1	121.7	33.8	155.5	54.0	475.2	529.2
June-Aug.	529.2	---	0.0	529.2	1.9	0.9	41.3	44.1	45.9	90.0	171.5	267.7	439.2
Mkt. year	318.7	835.1	0.1	1,153.8	7.9	1.8	494.8	504.5	210.1	714.6	171.5	267.7	439.2

See footnotes at end of table.

Continued--

Appendix table 9--Sorghum: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning September 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1983/84:													
Sept.-Nov.	439.2	487.5	0.0	926.7	2.1	0.0	125.1	127.2	67.5	194.7	190.4	541.6	732.0
Dec.-Feb.	732.0	---	0.0	732.0	2.1	0.0	126.1	128.2	71.6	199.8	61.4	470.8	532.2
Mar.-May	532.2	---	0.0	532.2	1.5	1.1	105.3	107.9	55.3	163.2	78.0	291.0	369.0
June-Aug.	369.0	---	0.1	369.1	2.0	1.2	28.2	31.4	50.2	81.6	102.8	184.7	287.5
Mkt. year	439.2	487.5	0.1	926.9	7.7	2.3	384.9	394.9	244.5	639.4	102.8	184.7	287.5
1984/85:													
Sept.-Nov.	287.5	866.2	0.0	1,153.7	4.1	0.0	209.9	214.0	85.8	299.8	93.1	760.8	853.9
Dec.-Feb.	853.9	---	0.1	854.0	4.5	0.0	201.4	205.9	87.3	293.2	105.2	455.6	560.8
Mar.-May	560.8	---	0.0	560.8	3.8	1.5	130.9	136.2	63.7	199.9	111.1	249.8	360.9
June-Aug.	360.9	---	0.0	360.9	2.9	0.5	(2.9)	0.5	60.1	60.6	112.1	188.2	300.3
Mkt. year	287.5	866.2	0.1	1,153.9	15.3	2.0	539.4	556.7	296.9	853.6	112.1	188.2	300.3
1985/86:													
Sept.-Nov.	300.3	1,120.3	0.0	1,420.6	7.6	0.0	230.4	238.0	70.2	308.3	138.6	973.7	1,112.3
Dec.-Feb.	1,112.3	---	0.0	1,112.3	7.9	0.0	232.8	240.7	43.1	283.9	175.2	653.3	828.5
Mar.-May	828.5	---	0.0	828.5	6.6	1.2	163.7	171.5	26.9	198.4	181.4	448.6	630.0
June-Aug.	630.0	---	0.0	630.0	3.9	0.5	36.9	41.3	37.7	79.0	207.2	343.8	551.0
Mkt. year	300.3	1,120.3	0.0	1,420.6	26.0	1.7	663.9	691.6	178.0	869.6	207.2	343.8	551.0
1986/87:													
Sept.-Nov.	551.0	938.9	0.0	1,489.9	2.8	0.0	180.4	183.3	47.5	230.7	292.1	967.1	1,259.2
Dec.-Feb.	1,259.2	---	0.0	1,259.2	2.9	0.0	182.3	185.3	56.2	241.4	364.9	652.8	1,017.7
Mar.-May	1,017.7	---	0.0	1,017.7	2.4	1.0	128.2	131.6	51.2	182.8	400.4	434.6	835.0
June-Aug.	835.0	---	0.0	835.0	2.2	0.6	45.3	48.1	43.5	91.6	408.9	334.4	743.3
Mkt. year	551.0	938.9	0.0	1,489.9	10.4	1.6	536.2	548.2	198.3	746.5	408.9	334.4	743.3
1987/88:													
Sept.-Nov.	743.3	730.8	0.0	1,474.1	4.9	0.0	171.3	176.2	45.5	221.7	465.3	787.1	1,252.4
Dec.-Feb.	1,252.4	---	0.0	1,252.4	5.1	0.0	173.1	178.2	63.1	241.3	545.5	465.6	1,011.1
Mar.-May	1,011.1	---	0.0	1,011.1	4.2	0.8	121.2	126.2	77.1	203.3	511.4	296.4	807.8
June-Aug.	807.8	---	0.0	807.9	9.3	0.5	89.6	99.4	45.8	145.2	463.6	199.1	662.7
Mkt. year	743.3	730.8	0.0	1,474.1	23.5	1.3	555.1	579.9	231.6	811.5	463.6	199.1	662.7
1988/89:													
Sept.-Nov.	662.7	576.7	0.0	1,239.3	5.9	0.0	171.3	177.1	64.5	241.6	432.9	564.8	997.7
Dec.-Feb.	997.7	---	0.0	997.7	6.1	0.0	173.1	179.2	93.5	272.6	396.4	328.7	725.1
Mar.-May	725.1	---	0.0	725.1	5.0	0.8	79.7	85.5	80.6	166.1	363.8	195.2	559.0
June-Aug.	559.0	---	0.0	559.0	3.5	0.7	42.3	46.5	73.0	119.5	340.9	98.6	439.5
Mkt. year	662.7	576.7	0.0	1,239.4	20.5	1.5	466.4	488.4	311.5	799.8	340.9	98.6	439.5

See footnotes at end of table.

Continued--

Appendix table 9--Sorghum: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning September 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1989/90:													
Sept.-Nov.	439.5	615.4	0.0	1,054.9	3.6	0.0	169.6	173.2	89.9	263.1	314.6	461.0	791.8
Dec.-Feb.	791.8	---	0.0	791.8	4.4	0.0	192.7	197.0	81.2	278.2	223.0	290.6	513.6
Mar.-May	513.6	---	0.1	513.7	2.5	0.7	94.2	97.4	81.3	178.7	190.2	144.8	335.0
June-Aug.	335.0	---	0.1	335.1	3.1	0.6	60.9	64.6	50.8	115.3	162.5	57.3	219.8
Mkt. year	439.5	615.4	0.2	1,055.2	13.6	1.3	517.3	532.2	303.2	835.4	162.5	57.3	219.8
1990/91:													
Sept.-Nov.	219.8	573.3	0.0	793.1	2.0	0.0	222.1	224.1	56.6	280.7	157.7	354.6	512.3
Dec.-Feb.	512.3	---	0.0	512.3	1.8	0.0	116.5	118.3	61.2	179.5	149.6	183.3	332.9
Mar.-May	332.9	---	0.1	332.9	1.8	0.7	32.4	34.9	76.0	110.9	108.4	113.6	222.0
June-Aug.	222.0	---	0.0	222.0	1.7	0.7	38.6	41.0	38.4	79.4	64.7	77.9	142.6
Mkt. year	219.8	573.3	0.1	793.1	7.3	1.4	409.7	418.3	232.2	650.5	64.7	77.9	142.6
1991/92:													
Sept.-Nov.	142.6	584.9	0.0	727.4	2.1	0.0	228.3	230.4	46.5	277.0	34.3	416.2	450.5
Dec.-Feb.	450.5	---	0.0	450.5	1.8	0.0	89.2	91.0	108.2	199.2	19.6	231.6	251.2
Mar.-May	251.2	---	0.0	251.2	1.9	1.1	32.9	35.9	105.0	140.9	14.3	96.1	110.4
June-Aug.	110.4	---	0.0	110.4	1.0	0.6	23.6	25.2	32.0	57.2	8.0	45.0	53.2
Mkt. year	142.6	584.9	0.0	727.5	6.8	1.7	374.0	382.5	291.7	674.3	8.0	45.0	53.2
1992/93:													
Sept.-Nov.	53.2	884.0	0.0	937.2	1.5	0.0	273.9	275.4	56.4	331.9	2.5	602.8	605.3
Dec.-Feb.	605.3	---	0.0	605.3	1.2	0.0	68.2	69.4	101.5	170.9	4.0	430.4	434.4
Mar.-May	434.4	---	0.0	434.4	1.8	0.7	79.7	82.2	87.4	169.6	3.9	260.9	264.8
June-Aug.	264.8	---	0.0	264.8	1.6	0.7	55.6	57.9	31.9	89.8	4.0	171.0	175.0
Mkt. year	53.2	884.0	0.0	937.2	6.1	1.4	477.5	485.0	277.2	762.2	4.0	171.0	175.0
1993/94:													
Sept.-Nov.	175.0	567.9	0.0	742.9	1.7	0.0	253.1	254.8	39.2	294.1	1.9	446.9	448.8
Dec.-Feb.	448.8	---	0.0	448.8	1.5	0.0	110.7	112.2	60.4	172.6	2.0	274.2	276.2
Mar.-May	276.2	---	0.0	276.2	1.6	0.9	81.9	84.4	63.7	148.1	2.0	126.1	128.1
June-Aug.	128.1	---	0.0	128.1	1.4	0.4	40.5	42.3	38.2	80.5	0.7	46.9	47.6
Mkt. year 2/	175.0	567.9	0.0	742.9	6.2	1.3	486.3	493.8	201.6	695.3	0.7	46.9	47.6
1994/95:													
Mkt. year 3/	47.6	640.4	0.0	688.0	----8.0----		400.0	408.0	215.0	623.0			65.0

--- = Not applicable.
1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected.

Appendix table 10--Barley: Marketing year supply and disappearance, specified periods, 1977/78-1994/95

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1977/78:													
June-Aug.	126.4	427.8	3.4	557.5	36.6	0.0	48.1	84.7	25.1	109.8	0.0	447.7	447.7
Sept.-Nov.	447.7	---	0.8	448.5	31.8	1.2	37.7	70.7	19.5	90.2	0.0	358.3	358.3
Dec.-Feb.	358.3	---	1.8	360.1	32.2	1.3	45.7	79.2	5.5	84.7	0.0	275.4	275.4
Mar.-May	275.4	---	0.5	275.9	38.0	14.3	45.2	97.5	5.3	102.8	0.0	173.1	173.1
Mkt. year	126.4	427.8	6.4	560.6	138.6	16.8	176.6	332.0	55.5	387.5	0.0	173.1	173.1
1978/79:													
June-Aug.	173.1	454.8	1.5	629.4	41.3	0.0	62.5	103.8	14.2	118.0	0.8	510.6	511.4
Sept.-Nov.	511.4	---	1.0	512.4	36.5	1.0	48.7	86.2	8.3	94.5	1.2	416.7	417.9
Dec.-Feb.	417.9	---	2.2	420.1	35.5	1.1	50.7	87.3	0.9	88.2	2.1	329.8	331.9
Mar.-May	331.9	---	2.1	334.0	40.3	11.5	52.9	104.7	1.3	106.0	2.5	225.5	228.0
Mkt. year	173.1	454.8	6.7	634.6	153.6	13.6	214.7	381.9	24.6	406.6	2.5	225.5	228.0
1979/80:													
June-Aug.	228.0	383.2	1.7	612.9	41.0	0.0	64.7	105.7	7.4	113.0	2.8	497.1	499.9
Sept.-Nov.	499.9	---	1.1	501.0	37.3	1.0	47.2	85.5	19.6	105.1	3.0	392.9	395.9
Dec.-Feb.	395.9	---	2.0	397.9	37.1	1.1	47.6	85.8	10.9	96.7	3.2	298.0	301.2
Mar.-May	301.2	---	2.3	303.5	42.4	11.8	42.3	96.5	14.9	111.4	3.2	188.9	192.1
Mkt. year	228.0	383.2	7.2	618.4	157.8	13.9	201.7	373.4	52.8	426.3	3.2	188.9	192.1
1980/81:													
June-Aug.	192.1	361.1	1.3	554.5	44.6	0.0	58.5	103.1	17.9	120.9	3.4	430.2	433.6
Sept.-Nov.	433.6	---	1.3	434.9	38.4	1.1	40.1	79.6	18.8	98.5	3.4	333.0	336.4
Dec.-Feb.	336.4	---	1.5	337.9	36.5	1.3	35.3	73.1	26.7	99.8	3.4	234.7	238.1
Mar.-May	238.1	---	1.8	239.9	42.9	13.5	33.9	90.3	12.3	102.6	3.4	133.9	137.3
Mkt. year	192.1	361.1	5.9	559.1	162.4	15.9	167.8	346.1	75.7	421.8	3.4	133.9	137.3
1981/82:													
June-Aug.	137.3	473.5	1.1	611.9	43.1	0.0	56.5	99.6	20.2	119.8	3.3	488.8	492.1
Sept.-Nov.	492.1	---	1.1	493.2	36.7	1.1	52.1	89.9	37.0	126.8	3.3	363.1	366.4
Dec.-Feb.	366.4	---	2.5	368.9	36.6	1.3	43.9	81.8	24.1	105.8	3.3	259.8	263.1
Mar.-May	263.1	---	2.1	265.2	41.5	13.5	45.3	100.3	17.1	117.4	3.3	144.5	147.8
Mkt. year	137.3	473.5	6.9	617.7	157.9	15.9	197.7	371.5	98.4	469.9	3.3	144.5	147.8
1982/83:													
June-Aug.	147.8	515.9	3.9	667.6	41.7	0.0	69.1	110.8	18.3	129.1	3.7	534.8	538.5
Sept.-Nov.	538.5	---	1.3	539.8	37.0	1.2	48.9	87.1	9.5	96.6	4.3	438.9	443.2
Dec.-Feb.	443.2	---	1.2	444.4	36.6	1.4	57.1	95.1	10.7	105.8	4.6	334.0	338.6
Mar.-May	338.6	---	2.0	340.6	41.6	14.6	62.0	118.2	5.7	123.9	6.0	210.7	216.7
Mkt. year	147.8	515.9	8.4	672.1	156.8	17.2	237.2	411.2	44.2	455.4	6.0	210.7	216.7

See footnotes at end of table.

Continued--

Appendix table 10--Barley: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1983/84:													
June-Aug.	216.7	508.3	2.3	727.3	43.2	0.0	98.8	141.9	8.8	150.8	8.5	568.0	576.5
Sept.-Nov.	576.5	---	0.6	577.1	35.6	1.4	87.0	124.0	31.1	155.1	10.7	411.3	422.0
Dec.-Feb.	422.0	---	1.0	423.0	35.1	1.6	49.4	86.1	28.7	114.8	12.0	296.2	308.2
Mar.-May	308.2	---	1.1	309.3	40.6	16.5	42.6	99.8	20.1	119.9	11.9	177.5	189.4
Mkt. year	216.7	508.3	5.0	730.0	154.5	19.5	277.8	451.8	88.8	540.6	11.9	177.5	189.4
1984/85:													
June-Aug.	189.4	598.0	2.7	790.1	41.0	0.0	99.0	140.0	11.1	151.1	12.2	626.8	639.0
Sept.-Nov.	639.0	---	0.9	639.9	35.6	1.5	82.7	119.8	35.2	155.0	13.0	471.9	484.9
Dec.-Feb.	484.9	---	2.4	487.3	35.1	1.7	70.7	107.5	21.0	128.6	14.2	344.5	358.7
Mar.-May	358.7	---	1.5	360.2	41.4	18.2	48.9	108.5	4.3	112.8	15.6	231.8	247.4
Mkt. year	189.4	598.0	7.4	794.9	153.1	21.4	301.3	475.8	71.7	547.5	15.6	231.8	247.4
1985/86:													
June-Aug.	247.4	590.2	0.7	838.3	41.6	0.0	88.0	129.6	10.4	140.0	20.0	678.3	698.3
Sept.-Nov.	698.3	---	1.3	699.6	35.8	1.5	82.9	120.3	7.3	127.5	36.1	536.0	572.1
Dec.-Feb.	572.1	---	2.5	574.6	35.8	1.7	71.1	108.7	1.3	109.9	47.3	417.4	464.7
Mar.-May	464.7	---	1.7	466.4	43.3	18.1	77.1	138.5	0.8	139.2	57.4	269.8	327.2
Mkt. year	247.4	590.2	6.2	843.9	156.5	21.3	319.1	496.9	19.7	516.7	57.4	269.8	327.2
1986/87:													
June-Aug.	327.2	608.5	1.3	937.1	42.4	0.0	94.4	136.8	13.5	150.3	56.0	730.8	786.8
Sept.-Nov.	786.8	---	1.0	787.8	36.7	1.3	72.0	110.0	43.5	153.5	66.2	568.1	634.3
Dec.-Feb.	634.3	---	1.2	635.5	36.0	1.4	67.0	104.4	31.8	136.2	75.2	424.1	499.3
Mar.-May	499.3	---	3.1	502.4	41.8	15.2	64.3	121.3	44.8	166.1	75.5	260.8	336.3
Mkt. year	327.2	608.5	6.7	942.4	156.9	17.9	297.7	472.5	133.6	606.1	75.5	260.8	336.3
1987/88:													
June-Aug.	336.3	521.5	1.1	858.9	42.7	0.0	74.3	117.1	16.8	133.9	74.9	650.1	725.0
Sept.-Nov.	725.0	---	2.9	727.9	37.1	1.1	64.8	103.0	42.5	145.5	79.5	502.9	582.4
Dec.-Feb.	582.4	---	4.3	586.7	36.3	1.3	57.6	95.2	33.0	128.2	57.0	401.5	458.5
Mar.-May	458.5	---	3.0	461.5	42.0	13.3	56.5	111.8	28.6	140.4	50.1	271.0	321.1
Mkt. year	336.3	521.5	11.3	869.1	158.1	15.7	253.2	427.0	121.0	548.0	50.1	271.0	321.1
1988/89:													
June-Aug.	321.1	290.0	2.8	613.9	44.0	0.0	93.7	137.7	25.8	163.5	35.9	414.5	450.4
Sept.-Nov.	450.4	---	2.2	452.6	38.4	1.1	28.4	67.8	12.6	80.5	35.9	336.2	372.1
Dec.-Feb.	372.1	---	2.8	374.9	36.2	1.2	41.6	79.1	15.3	94.3	34.1	246.5	280.6
Mar.-May	280.6	---	2.7	283.3	41.8	12.7	7.2	61.7	25.2	86.9	30.4	166.0	196.4
Mkt. year	321.1	290.0	10.5	621.6	160.4	15.0	170.9	346.3	78.9	425.2	30.4	166.0	196.4

See footnotes at end of table.

Continued--

Appendix table 10--Barley: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned 1/	Ending stocks: Total
	Million bushels												
1989/90:													
June-Aug.	196.4	404.2	3.6	604.2	45.7	0.0	114.0	159.7	26.5	186.2	36.6	381.3	417.9
Sept.-Nov.	417.9	---	2.0	419.9	39.3	0.9	11.9	52.1	17.2	69.3	36.3	314.3	350.6
Dec.-Feb.	350.6	---	3.3	353.9	37.2	1.1	40.2	78.5	22.7	101.2	32.1	220.6	252.7
Mar.-May	252.7	---	4.2	256.9	39.8	11.5	27.3	78.5	17.6	96.1	19.3	141.5	160.8
Mkt. year	196.4	404.2	13.1	613.7	162.0	13.5	193.3	368.8	84.0	452.9	19.3	141.5	160.8
1990/91:													
June-Aug.	160.8	422.2	1.0	584.0	44.7	0.0	97.6	142.3	30.9	173.2	14.3	396.6	410.9
Sept.-Nov.	410.9	---	1.3	412.1	39.0	1.0	41.2	81.2	25.2	106.4	12.1	293.6	305.7
Dec.-Feb.	305.7	---	4.2	309.9	37.6	1.2	41.6	80.4	18.6	99.0	9.6	201.3	210.9
Mar.-May	210.9	---	7.0	217.9	39.8	12.4	24.3	76.6	6.0	82.5	8.4	127.0	135.4
Mkt. year	160.8	422.2	13.5	596.5	161.1	14.6	204.8	380.5	80.6	461.1	8.4	127.0	135.4
1991/92:													
June-Aug.	135.4	464.3	7.4	607.1	45.2	0.0	108.5	153.7	13.5	167.2	7.7	432.3	440.0
Sept.-Nov.	440.0	---	3.5	443.4	37.8	0.9	39.7	78.3	36.7	115.0	7.0	321.4	328.4
Dec.-Feb.	328.4	---	6.5	334.8	36.9	1.0	56.4	94.3	24.6	119.0	6.8	209.1	215.9
Mar.-May	215.9	---	7.2	223.1	43.4	11.0	20.3	74.7	19.7	94.5	6.5	122.1	128.6
Mkt. year	135.4	464.3	24.5	624.2	163.3	12.9	224.9	401.1	94.5	495.6	6.5	122.1	128.6
1992/93:													
June-Aug.	128.6	457.9	6.6	593.1	43.2	0.0	113.1	156.3	18.4	174.7	5.8	412.6	418.4
Sept.-Nov.	418.4	---	1.5	419.9	36.5	0.9	13.9	51.3	22.0	73.4	5.4	341.2	346.6
Dec.-Feb.	346.6	---	1.4	348.0	36.2	1.1	44.9	82.2	21.9	104.1	5.5	238.4	243.9
Mar.-May	243.9	---	1.9	245.8	42.5	11.2	23.0	76.7	17.9	94.6	5.0	146.2	151.2
Mkt. year	128.6	457.9	11.4	597.9	158.4	13.2	194.9	366.5	80.3	446.7	5.0	146.2	151.2
1993/94:													
June-Aug.	151.2	400.2	3.2	554.6	43.4	0.0	93.8	137.2	14.6	151.9	5.4	397.3	402.7
Sept.-Nov.	402.7	---	10.8	413.5	37.2	0.8	26.9	64.9	15.2	80.0	5.3	328.1	333.4
Dec.-Feb.	333.4	---	23.7	357.1	36.8	1.0	82.9	120.7	12.1	132.8	5.3	219.0	224.3
Mar.-May	224.3	---	33.9	258.1	45.5	10.3	39.3	95.1	24.1	119.3	5.2	133.7	138.9
Mkt. year 2/	151.2	400.2	71.5	622.9	162.9	12.1	243.0	418.0	66.1	484.0	5.2	133.7	138.9
1994/95:													
June-Aug.	138.9	375.3	24.1	538.3	43.4	0.0	124.4	167.8	20.3	188.1	5.2	345.0	350.2
Mkt. year 3/	138.9	375.3	65.0	579.2	----175.0----		215.0	390.0	60.0	450.0			129.2

--- = Not applicable.
1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected.

Appendix table 11--Oats: Marketing year supply and disappearance, specified periods, 1977/78-1994/95

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned	Ending stocks: Total
	Million bushels												
1977/78:													
June-Aug.	164.3	752.8	0.9	918.0	10.9	0.0	167.0	177.8	2.0	179.8	0.0	738.2	738.2
Sept.-Nov.	738.2	---	0.4	738.6	10.6	4.7	116.4	131.7	4.1	135.8	0.0	602.8	602.8
Dec.-Feb.	602.8	---	0.4	603.2	10.2	1.2	115.5	126.9	3.0	129.9	0.0	473.3	473.3
Mar.-May	473.3	---	0.3	473.7	10.3	33.4	116.0	159.7	1.0	160.6	0.0	313.1	313.1
Mkt. year	164.3	752.8	2.1	919.2	42.0	39.3	514.8	596.1	10.0	606.1	0.0	313.1	313.1
1978/79:													
June-Aug.	313.1	581.7	0.2	894.9	11.1	0.0	170.8	181.9	7.0	188.9	0.8	705.2	706.0
Sept.-Nov.	706.0	---	0.1	706.1	10.4	4.1	111.8	126.3	1.7	128.0	2.0	576.1	578.1
Dec.-Feb.	578.1	---	0.2	578.3	10.5	1.0	125.5	137.0	1.3	138.3	2.4	437.5	439.9
Mar.-May	439.9	---	0.2	440.1	9.0	28.7	122.1	159.8	0.3	160.2	2.7	277.2	279.9
Mkt. year	313.1	581.7	0.6	895.4	41.0	33.8	530.3	605.1	10.3	615.4	2.7	277.2	279.9
1979/80:													
June-Aug.	280.0	526.7	0.2	807.0	11.0	0.0	168.5	179.5	0.3	179.7	2.3	624.9	627.2
Sept.-Nov.	627.2	---	0.2	627.4	10.5	3.9	106.6	120.9	1.1	122.1	2.5	502.8	505.3
Dec.-Feb.	505.3	---	0.1	505.5	10.3	1.0	105.7	117.0	0.8	117.8	2.3	385.4	387.7
Mar.-May	387.7	---	0.2	388.0	8.9	27.5	114.5	150.9	0.6	151.5	2.7	233.8	236.5
Mkt. year	280.0	526.7	0.8	807.5	40.7	32.3	495.3	568.3	2.8	571.1	2.7	233.8	236.5
1980/81:													
June-Aug.	236.4	458.8	0.4	695.6	11.3	0.0	144.7	156.0	1.5	157.6	2.2	535.9	538.1
Sept.-Nov.	538.1	---	0.2	538.3	10.3	4.0	100.1	114.4	2.1	116.6	2.1	419.6	421.7
Dec.-Feb.	421.7	---	0.2	421.9	9.9	1.0	103.3	114.2	2.1	116.3	1.9	303.7	305.6
Mar.-May	305.6	---	0.3	305.9	9.4	28.1	88.3	125.8	3.1	128.9	2.3	174.7	177.0
Mkt. year	236.4	458.8	1.1	696.3	41.0	33.0	436.5	510.5	8.8	519.3	2.3	174.7	177.0
1981/82:													
June-Aug.	177.0	509.5	0.2	686.7	12.1	0.0	157.7	169.8	1.4	171.2	1.9	513.7	515.6
Sept.-Nov.	515.6	---	0.2	515.8	10.6	4.1	105.3	120.0	0.7	120.7	1.9	393.2	395.1
Dec.-Feb.	395.1	---	0.1	395.3	9.9	1.0	101.1	112.1	0.3	112.4	1.7	281.2	282.9
Mar.-May	282.9	---	0.9	283.8	8.6	29.1	93.9	131.6	0.3	131.9	0.7	151.2	151.9
Mkt. year	177.0	509.5	1.5	688.0	41.2	34.2	458.0	533.4	2.7	536.1	0.7	151.2	151.9
1982/83:													
June-Aug.	151.9	592.6	0.6	745.2	12.2	0.0	127.1	139.3	0.2	139.5	0.5	605.2	605.7
Sept.-Nov.	605.7	---	0.2	605.9	10.6	5.2	102.9	118.7	0.4	119.1	0.7	486.0	486.7
Dec.-Feb.	486.7	---	0.8	487.5	10.4	1.3	108.1	119.8	0.1	119.9	0.7	366.9	367.6
Mar.-May	367.6	---	2.0	369.5	8.5	36.8	104.3	149.6	0.0	149.7	0.7	219.1	219.8
Mkt. year	151.9	592.6	3.5	748.0	41.7	43.3	442.4	527.4	0.8	528.2	0.7	219.1	219.8

See footnotes at end of table.

Continued--

Appendix table 11--Oats: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned	Ending stocks: Total
	Million bushels												
1983/84:													
June-Aug.	219.8	476.5	9.2	705.4	11.9	0.0	141.9	153.8	0.1	153.9	0.7	550.8	551.5
Sept.-Nov.	551.5	---	6.1	557.6	10.4	3.5	126.2	140.2	0.5	140.7	1.4	415.5	416.9
Dec.-Feb.	416.9	---	6.2	423.1	10.3	0.9	108.4	119.6	0.1	119.7	1.4	302.1	303.5
Mar.-May	303.5	---	8.4	311.9	8.3	25.1	97.5	130.8	0.2	131.1	1.5	179.4	180.9
Mkt. year	219.8	476.5	29.9	726.2	40.9	29.5	474.0	544.4	0.9	545.3	1.5	179.4	180.9
1984/85:													
June-Aug.	180.9	473.7	2.0	656.6	11.8	0.0	126.9	138.7	0.1	138.8	1.4	516.4	517.8
Sept.-Nov.	517.8	---	8.7	526.5	10.5	3.7	115.1	129.3	0.2	129.5	1.4	395.6	397.0
Dec.-Feb.	397.0	---	12.2	409.2	10.2	0.9	101.6	112.8	0.1	112.9	1.4	294.9	296.3
Mar.-May	296.3	---	10.8	307.1	8.5	26.5	92.0	127.0	0.1	127.1	1.4	178.5	179.9
Mkt. year	180.9	473.7	33.6	688.2	41.0	31.2	435.6	507.8	0.5	508.3	1.4	178.5	179.9
1985/86:													
June-Aug.	179.9	518.5	4.4	702.8	12.8	0.0	135.8	148.7	0.1	148.8	1.5	552.6	554.1
Sept.-Nov.	554.1	---	4.2	558.3	11.2	3.9	118.1	133.2	0.3	133.5	1.9	422.9	424.8
Dec.-Feb.	424.8	---	8.9	433.7	10.9	1.0	109.3	121.2	0.1	121.2	2.0	310.4	312.4
Mar.-May	312.4	---	9.7	322.1	9.0	27.6	101.0	137.7	0.8	138.4	1.9	181.8	183.7
Mkt. year	179.9	518.5	27.2	725.6	44.0	32.5	464.2	540.7	1.2	541.9	1.9	181.8	183.7
1986/87:													
June-Aug.	183.7	385.0	8.7	577.4	13.1	0.0	112.5	125.6	0.2	125.9	2.4	449.1	451.5
Sept.-Nov.	451.5	---	4.8	456.3	11.5	4.6	97.8	113.9	0.3	114.2	3.2	339.0	342.2
Dec.-Feb.	342.2	---	9.2	351.4	11.1	1.1	90.5	102.8	0.1	102.9	3.6	244.9	248.5
Mar.-May	248.5	---	9.6	258.1	9.3	32.3	83.7	125.2	0.3	125.5	3.5	129.2	132.7
Mkt. year	183.7	385.0	32.4	601.0	45.0	38.0	384.4	467.4	0.9	468.3	3.5	129.2	132.7
1987/88:													
June-Aug.	132.7	373.7	7.0	513.4	14.5	0.0	104.8	119.3	0.2	119.5	3.3	390.5	393.8
Sept.-Nov.	393.9	---	8.1	402.0	12.7	3.8	91.1	107.6	0.1	107.8	3.4	290.7	294.1
Dec.-Feb.	294.2	---	15.8	310.0	12.3	0.9	84.3	97.6	0.1	97.7	3.4	208.8	212.2
Mar.-May	212.2	---	14.8	227.1	10.2	26.9	77.9	115.0	0.1	115.1	3.5	108.5	112.0
Mkt. year	132.7	373.7	45.7	552.1	49.8	31.6	358.2	439.6	0.5	440.1	3.5	108.5	112.0
1988/89:													
June-Aug.	112.0	217.6	12.3	341.8	21.2	0.0	56.7	77.9	0.2	78.1	3.0	260.7	263.8
Sept.-Nov.	263.8	---	11.9	275.6	18.6	3.3	49.3	71.1	0.1	71.3	2.5	201.9	204.4
Dec.-Feb.	204.4	---	20.1	224.5	18.0	0.8	45.6	64.4	0.2	64.6	2.6	157.2	159.9
Mar.-May	159.9	---	18.6	178.5	15.0	23.0	42.2	80.1	0.1	80.2	2.4	95.9	98.3
Mkt. year	112.0	217.6	62.9	392.5	72.7	27.1	193.8	293.6	0.6	294.2	2.4	95.9	98.3

See footnotes at end of table.

Continued--

Appendix table 11--Oats: Marketing year supply and disappearance, specified periods, 1977/78-1994/95--Continued

Year beginning June 1	Supply: Beginning stocks	Supply: Production	Supply: Imports	Supply: Total	Disappearance: Domestic use: Food, alcohol, and industrial	Disappearance: Domestic use: Seed	Disappearance: Domestic use: Feed and residual	Disappearance: Domestic use: Total	Disappearance: Exports	Disappearance: Total disappearance	Ending stocks: Govt. owned	Ending stocks: Privately owned	Ending stocks: Total
	Million bushels												
1989/90:													
June-Aug.	98.3	373.6	17.0	488.9	26.6	0.0	88.7	115.3	0.2	115.6	1.3	372.0	373.3
Sept.-Nov.	373.3	---	17.5	390.8	23.3	2.7	77.2	103.2	0.3	103.5	1.2	286.2	287.3
Dec.-Feb.	287.3	---	15.7	303.0	22.6	0.7	64.8	88.1	0.2	88.2	1.1	213.6	214.7
Mar.-May	214.7	---	16.3	231.0	19.1	20.0	34.8	73.9	0.2	74.1	0.7	156.2	156.9
Mkt. year	98.3	373.6	66.4	538.3	91.6	23.4	265.6	380.6	0.8	381.4	0.7	156.2	156.9
1990/91:													
June-Aug.	156.9	357.5	17.5	532.0	28.7	0.0	151.4	180.1	0.2	180.2	0.6	351.1	351.7
Sept.-Nov.	351.7	---	11.7	363.4	24.7	2.2	42.2	69.1	0.2	69.3	0.6	293.5	294.1
Dec.-Feb.	294.1	---	18.2	312.3	24.6	0.5	57.9	83.0	0.1	83.1	0.5	228.8	229.3
Mar.-May	229.3	---	16.0	245.2	22.9	16.4	34.6	73.9	0.1	74.0	0.3	170.9	171.2
Mkt. year	156.9	357.5	63.4	577.8	100.9	19.1	286.0	406.0	0.6	406.6	0.3	170.9	171.2
1991/92:													
June-Aug.	171.2	243.5	21.7	436.4	30.5	0.0	121.7	152.2	0.1	152.3	0.3	283.8	284.1
Sept.-Nov.	284.1	---	17.3	301.4	26.5	2.1	28.0	56.6	0.2	56.8	0.3	244.3	244.6
Dec.-Feb.	244.6	---	17.6	262.3	26.0	0.5	60.7	87.2	0.2	87.4	0.3	174.6	174.9
Mar.-May	174.9	---	18.1	193.0	24.2	15.2	24.5	63.9	1.4	65.3	0.2	127.5	127.7
Mkt. year	171.2	243.5	74.8	489.4	107.2	17.8	234.8	359.8	1.9	361.7	0.2	127.5	127.7
1992/93:													
June-Aug.	127.7	294.8	15.1	437.6	30.5	0.0	111.5	142.0	1.0	143.0	0.1	294.5	294.6
Sept.-Nov.	294.6	---	11.9	306.5	26.5	2.1	33.4	62.0	2.1	64.0	0.1	242.4	242.5
Dec.-Feb.	242.5	---	10.7	253.2	26.0	0.5	50.2	76.7	1.4	78.1	0.1	175.0	175.1
Mar.-May	175.1	---	17.2	192.4	24.2	15.2	38.5	77.9	1.3	79.2	0.1	113.1	113.2
Mkt. year	127.7	294.8	55.0	477.5	107.2	17.8	233.6	358.6	5.7	364.3	0.1	113.1	113.2
1993/94:													
June-Aug.	113.2	206.4	16.8	336.4	31.9	0.0	84.0	115.9	1.5	117.4	0.1	218.9	219.0
Sept.-Nov.	219.0	---	34.9	253.9	27.7	1.8	30.0	59.5	0.7	60.2	0.0	193.7	193.7
Dec.-Feb.	193.7	---	31.4	225.1	26.8	0.4	50.8	78.0	0.5	78.5	0.0	146.6	146.6
Mar.-May	146.6	---	23.8	170.3	23.4	13.0	28.2	64.6	0.2	64.8	0.0	105.5	105.5
Mkt. year 1/	113.2	206.4	106.8	426.4	109.8	15.2	192.9	317.9	3.0	320.9	0.0	105.5	105.5
1994/95:													
June-Aug.	105.5	229.7	20.4	355.6	32.0	0.0	103.4	135.4	0.2	135.6	0.0	220.0	220.0
Mkt. year 2/	105.5	229.7	80.0	415.2	----125.0----		175.0	300.0	2.0	302.0			113.2

--- = Not applicable.
1/ Preliminary. 2/ Projected.

Appendix table 12--Farm programs and participation, 1977-94

Crop Year	Target price	Loan rate	Acreage 1/ reduction program	Defficiency payment rate	Diversion payment rate	Partici-pation rate	NAP or Base	Area idled 2/	-Area planted- total	program
	-----$/bu.---		Percent	--$/bu.--	$/acre	Percent	----------Million acres----------			
Corn:										
1977	2.00	2.00	0	0	0	100.0	60.9	0	84.3	84.3
1978	2.10	2.00	10/+10	0.03	0.20	40.0	76.2	3.2/2.9	81.7	32.3
1979	2.20	2.10	10/+10	0	1.00	21.0	85.7	1.7/1.2	81.4	17.2
1980	2.35	2.25	0	0	0	100.0	84.1	0	84.0	84.0
1981	2.40	2.40	0	0	0	100.0	80.5	0	84.1	84.1
1982	2.70	2.55	10.0	0.29	0	29.0	81.3	2.1	81.9	19.1
1983 3/	2.86	2.65	10/10/+10-30	0	1.50/80	71.0	82.6	4.4/27.8	60.2	25.0
1984	3.03	2.55	10.0	0.43	0	54.0	80.8	3.9	80.5	34.7
1985	3.03	2.55	10.0	0.48	0	69.0	84.2	5.4	83.4	48.8
1986	3.03	1.92	17.5/2.5/50-92	1.11	0.73	85.7	81.7	11.9/2.4	76.6	54.8
1987	3.03	1.82	20/+15/50-92	1.09	2.00	90.5	81.5	14.7/8.4	66.2	51.2
1988	2.93	1.77	20/+10/0-92	0.36	1.75	87.1	82.9	14.4/6.1	67.7	51.0
1989	2.84	1.65	10/0-92	0.58	0	79.5	82.7	6.3/4.5	72.2	51.8
1990	2.75	1.57	10/0-92	0.53	0	77.4	82.6	6.1/4.6	74.2	54.3
1991	2.75	1.62	7.5/0-92	0.58	0	76.5	82.7	4.7/2.7	76.0	52.9
1992	2.75	1.72	5.0/0-92	0.48	0	75.4	82.2	3.1/2.2	79.3	54.2
1993	2.75	1.72	10.0/0-92	0.28	0	81.3	81.8	6.6/4.3	73.3	52.0
1994 4/	2.75	1.89	0;0-85/92	0.40	0	81.9	81.6	0/2.2	78.8	61.5
Sorghum:										
1977	2.28	1.90	0	0	0	100.0	16.4	0	16.6	16.6
1978	2.28	1.90	10/+10	0.33	0.12	65.0	13.7	1.1/0.3	16.2	10.6
1979	2.34	2.00	10/+10	0.13	1.00	56.0	15.9	0.8/0.3	15.3	8.5
1980	2.50	2.14	0	0	0	100.0	12.8	0	15.6	15.3
1981	2.55	2.28	0	0.27	0	100.0	14.3	0	15.9	16.1
1982	2.60	2.42	10.0	0.18	0	47.0	17.7	0.7	16.0	6.1
1983 3/	2.72	2.52	10/10/+10-30	0	1.50/80	72.0	17.6	0.8/4.9	11.9	4.6
1984	2.88	2.42	10.0	0.46	0	42.0	18.4	0.6	17.2	5.6
1985	2.88	2.42	10.0	0.46	0	55.0	19.3	0.9	18.3	8.4
1986	2.88	1.82	17.5/2.5/50-92	1.06	0.65	74.0	19.0	2.1/0.8	15.3	9.2
1987	2.88	1.74	20/+15/50-92	1.14	1.90	85.0	17.4	2.4/1.7	11.8	8.4
1988	2.78	1.68	20/+10/0-92	0.48	1.65	82.0	16.8	2.2/1.7	10.3	7.2
1989	2.70	1.57	10/0-92	0.66	0	70.8	16.2	1.1/2.2	12.6	7.7
1990	2.61	1.49	10/0-92	0.58	0	70.2	15.4	1.0/2.3	10.5	7.1
1991	2.61	1.54	7.5/0-92	0.56	0	77.1	13.5	0.8/1.7	11.1	7.3
1992	2.61	1.63	5.0/0-92	0.46	0	77.4	13.6	0.5/1.4	13.3	7.7
1993	2.61	1.63	5.0/0-92	0.25	0	81.6	13.5	0.6/1.7	10.5	6.8
1994 4/	2.61	1.80	0;0-85/92	0.46	0	81.4	13.5	0/1.5	10.2	7.4
Barley:										
1977	2.15	1.63	0	0	0	0	11.7	0	10.8	10.8
1978	2.25	1.63	10/0+10	0.50	1.20	58.0	7.5	0.8	10.0	5.8
1979	2.40	1.71	20/0+0	0.35	0	42.0	7.8	0.7	8.1	3.4
1980	2.55	1.83	0	0.11	0	0	8.3	0	8.3	8.3
1981	2.60	1.95	0	0	0	0	10.2	0	9.6	9.6
1982	2.60	2.08	10	0.11	0	46.0	10.5	0.4	9.5	4.6
1983	2.60	2.16	10/10	0.40	1.00	55.0	10.2	1.1	10.0	6.1
1984	2.60	2.08	10	0.26	0	44.0	11.6	0.5	11.9	4.1
1985	2.60	2.08	10	0.52	0	57.0	13.3	0.7	13.1	6.4
1986	2.60	1.56	17.5/2.5/50-92	0.99	0.57	73.0	12.4	1.8/0.2	13.0	7.3
1987	2.60	1.49	20/0+15/50-92	0.79	1.60	84.6	12.5	2.6/0.3	10.9	8.1
1988	2.51	1.44	20/0+10/0-92	0	1.40	79.1	12.4	2.2/0.6	9.8	6.5
1989	2.43	1.34	10/0-92	0	0	66.6	12.3	0.8/1.5	9.1	5.5
1990	2.36	1.28	10/0-92	0.22	0	68.2	11.9	0.7/2.2	8.2	4.7
1991	2.36	1.32	7.5/0-92	0.62	0	75.9	11.5	0.7/1.5	8.9	5.8
1992	2.36	1.40	5.0/0-92	0.35	0	74.0	11.1	0.4/1.7	7.8	5.2
1993	2.36	1.40	0.0/0-92	0.67	0	82.5	10.8	0.0/2.5	7.8	5.1
1994 4/	2.36	1.54	0;0-85/92	0.52	0	84.3	10.7	0.0/2.4	7.2	5.5
Oats:										
1977	0	1.03	0	0	0	0	0	0	17.7	0
1978	0	1.03	0	0	0	0	0	0	16.4	0
1979	0	1.08	0	0	0	0	0	0	14.0	0
1980	0	1.16	0	0	0	0	0	0	13.4	0
1981	0	1.24	0	0	0	0	0	0	13.6	0
1982	1.50	1.31	10	0	0	14.0	10.4	0.1	14.0	1.0
1983	1.60	1.36	10/10	0.11	0.75	20.0	10.1	0.3	12.3	1.0
1984	1.60	1.31	10	0	0	14.0	9.8	0.1	12.4	0.7
1985	1.60	1.31	10	0.29	0	14.0	9.4	0.1	13.2	0.6
1986	1.60	0.99	17.5/2.5/50-92	0.39	0.36	37.0	9.2	0.4/0.1	14.7	1.5
1987	1.60	0.94	20/+15/50-92	0.20	0.80	44.7	8.4	0.7/0.1	17.9	2.8
1988	1.55	0.91	5/0-92	0	0	30.0	7.9	0.1/0.2	13.9	1.3
1989	1.50	0.85	5/0-92	0	0	18.4	7.6	0.1	12.1	1.0
1990	1.45	0.81	5/0-92	0.33	0	9.2	7.5	0.3/1.1	10.4	0.4
1991	1.45	0.83	0/0-92	0.35	0	37.9	7.3	0/0.6	8.7	1.6
1992	1.45	0.88	0/0-92	0.15	0	40.0	7.3	0/0.5	8.0	1.6
1993	1.45	0.88	0/0-92	0.11	0	45.7	7.1	0/0.8	7.9	1.4
1994 4/	1.45	0.97	0;0-85/92	0	0	41.4	6.8	0/0.6	6.6	1.4

1/ + denotes optional diversion program. 2/ The first number is the acreage set-aside (ARP) and diverted (DIV); the second number is acreage set aside under payment-in-kind, 50-92 and 0-92 programs. 3/ The second acreage reduction figure represents the paid diversion program and the third is payment-in-kind (PIK) program.
4/ Program data based on preliminary program sign up results.

Appendix table 13--Average prices received by farmers, United States, by month, and loan rate, 1973-94 1/

Year	Sept.	Oct. 2/	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average 3/	Loan rate
						$/bu.								
Corn:														
1973	2.15	2.17	2.18	2.39	2.59	2.76	2.68	2.41	2.45	2.57	2.91	3.37	2.55	1.05
1974	3.30	3.45	3.32	3.27	3.07	2.86	2.67	2.68	2.66	2.68	2.72	2.95	3.02	1.10
1975	2.76	2.62	2.33	2.37	2.44	2.48	2.50	2.46	2.61	2.74	2.82	2.64	2.54	1.10
1976	2.60	2.33	2.02	2.24	2.34	2.34	2.35	2.31	2.25	2.12	1.88	1.63	2.15	1.50
1977	1.60	1.67	1.88	1.97	2.00	2.03	2.15	2.24	2.29	2.28	2.16	2.01	2.02	2.00
1978	1.98	1.97	2.02	2.09	2.11	2.18	2.22	2.27	2.35	2.49	2.64	2.54	2.25	2.00
1979	2.51	2.41	2.27	2.38	2.45	2.39	2.40	2.36	2.42	2.49	2.73	2.92	2.48	2.10
1980	3.01	2.99	3.10	3.19	3.19	3.22	3.25	3.24	3.24	3.17	3.14	2.87	3.12	2.25
1981	2.55	2.45	2.34	2.39	2.54	2.44	2.46	2.55	2.60	2.57	2.50	2.30	2.47	2.40
1982	2.15	1.98	2.13	2.26	2.36	2.56	2.71	2.95	3.03	3.04	3.13	3.35	2.55	2.55
1983	3.32	3.15	3.17	3.15	3.15	3.11	3.21	3.32	3.34	3.36	3.30	3.12	3.21	2.65
1984	2.90	2.65	2.55	2.56	2.64	2.62	2.67	2.70	2.68	2.64	2.60	2.44	2.63	2.55
1985	2.29	2.11	2.21	2.29	2.33	2.32	2.29	2.30	2.39	2.32	2.00	1.73	2.23	2.55
1986	1.45	1.40	1.47	1.50	1.48	1.42	1.47	1.52	1.66	1.69	1.60	1.47	1.50	1.92
1987	1.49	1.55	1.61	1.72	1.77	1.83	1.86	1.88	1.94	2.41	2.72	2.65	1.94	1.82
1988	2.60	2.58	2.51	2.53	2.60	2.59	2.60	2.56	2.58	2.52	2.47	2.27	2.54	1.77
1989	2.29	2.22	2.24	2.27	2.31	2.32	2.37	2.51	2.62	2.63	2.62	2.51	2.36	1.65
1990	2.32	2.19	2.16	2.22	2.27	2.32	2.39	2.42	2.38	2.31	2.27	2.33	2.28	1.57
1991	2.33	2.31	2.29	2.33	2.40	2.46	2.49	2.48	2.49	2.47	2.33	2.15	2.37	1.62
1992	2.16	2.05	1.98	1.97	2.03	2.00	2.10	2.16	2.14	2.09	2.22	2.25	2.07	1.72
1993	2.21	2.28	2.45	2.67	2.70	2.79	2.74	2.65	2.60	2.61	2.29	2.16	2.50	1.72
1994	2.19	1.96												
						$/cwt.								
Sorghum:														
1973	3.87	3.65	3.66	3.83	4.03	4.38	4.25	3.78	3.59	3.59	4.15	5.07	3.82	1.79
1974	5.30	5.78	5.85	5.33	4.96	4.21	4.03	4.15	4.21	4.15	4.25	4.69	4.95	1.88
1975	4.56	4.43	4.05	4.00	4.06	4.09	4.14	4.14	4.14	4.29	4.53	4.03	4.23	1.88
1976	4.20	3.68	3.30	3.51	3.59	3.51	3.55	3.44	3.20	3.12	2.84	2.63	3.62	2.55
1977	2.52	2.80	3.03	3.05	3.15	3.20	3.39	3.62	3.66	3.64	3.50	3.37	3.25	3.39
1978	3.22	3.35	3.45	3.58	3.54	3.55	3.54	3.58	3.66	4.30	4.46	4.27	3.59	3.39
1979	4.24	3.90	3.99	3.90	4.05	3.98	4.05	3.96	4.04	4.49	4.95	5.12	4.19	3.57
1980	5.12	5.36	5.48	5.49	5.48	5.33	5.17	5.25	5.16	5.03	4.84	4.55	5.19	3.82
1981	4.07	3.90	3.87	3.95	4.09	4.08	4.00	4.10	4.35	4.17	3.96	3.95	4.01	4.07
1982	3.80	3.70	3.78	3.97	4.09	4.42	4.67	4.92	5.05	5.05	5.03	5.29	4.41	4.32
1983	5.26	5.01	4.98	4.93	4.92	4.74	4.85	5.00	5.08	4.94	4.64	4.58	4.89	4.50
1984	4.24	4.05	4.05	4.15	4.16	4.10	4.24	4.46	4.54	4.52	4.04	3.74	4.15	4.32
1985	3.27	3.30	3.47	3.76	3.69	3.55	3.67	3.80	3.99	3.43	3.06	2.66	3.45	4.32
1986	2.36	2.34	2.39	2.41	2.37	2.36	2.44	2.58	2.69	2.79	2.66	2.52	2.45	3.25
1987	2.43	2.48	2.69	2.72	2.75	2.88	2.92	2.94	2.90	4.13	4.56	4.41	3.04	3.11
1988	4.26	4.16	3.99	4.07	4.09	4.05	4.04	4.21	4.03	3.90	4.00	3.81	4.05	3.00
1989	3.80	3.61	3.68	3.54	3.58	3.53	3.69	3.89	4.07	4.29	4.44	4.14	3.75	2.80
1990	3.96	3.55	3.57	3.67	3.72	3.88	3.93	4.05	4.11	3.89	3.95	4.01	3.79	2.66
1991	4.10	3.93	3.94	3.99	4.07	4.19	4.31	4.28	4.31	4.22	3.82	3.77	4.02	2.75
1992	3.71	3.23	3.21	3.27	3.38	3.32	3.38	3.38	3.34	3.40	3.71	3.78	3.37	2.91
1993	3.69	3.81	4.22	4.54	4.70	4.59	4.36	4.20	4.20	4.24	3.71	3.73	4.13	2.91
1994	3.56	3.34												

Year	June	July	Aug.	Sept.	Oct. 2/	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average 3/	Loan rate
						$/bu.								
Oats:														
1973	0.90	0.86	1.13	1.09	1.14	1.13	1.20	1.32	1.44	1.40	1.24	1.27	1.18	0.54
1974	1.30	1.37	1.55	1.57	1.68	1.70	1.70	1.62	1.58	1.46	1.51	1.54	1.53	0.54
1975	1.49	1.45	1.44	1.45	1.41	1.40	1.42	1.44	1.46	1.46	1.44	1.47	1.46	0.54
1976	1.64	1.64	1.48	1.49	1.46	1.45	1.51	1.58	1.63	1.64	1.64	1.52	1.56	0.72
1977	1.29	1.02	0.93	0.94	1.04	1.10	1.13	1.18	1.22	1.17	1.19	1.24	1.09	1.03
1978	1.16	1.08	1.06	1.06	1.08	1.15	1.19	1.22	1.25	1.27	1.29	1.29	1.20	1.03
1979	1.35	1.33	1.24	1.29	1.31	1.41	1.31	1.39	1.37	1.34	1.38	1.43	1.33	1.08
1980	1.48	1.50	1.53	1.63	1.65	1.84	1.92	1.98	2.01	2.08	2.05	2.05	1.72	1.16
1981	1.99	1.84	1.72	1.74	1.78	1.88	1.94	1.97	1.99	2.02	1.99	1.99	1.88	1.24
1982	1.88	1.57	1.39	1.35	1.32	1.40	1.44	1.46	1.48	1.49	1.54	1.54	1.49	1.31
1983	1.51	1.46	1.45	1.55	1.62	1.67	1.73	1.81	1.88	1.81	1.82	1.84	1.62	1.36
1984	1.80	1.68	1.62	1.60	1.69	1.64	1.72	1.74	1.69	1.68	1.68	1.60	1.67	1.31
1985	1.59	1.31	1.16	1.10	1.08	1.17	1.20	1.18	1.16	1.14	1.13	1.21	1.23	1.31
1986	1.10	0.90	0.86	0.99	1.10	1.32	1.44	1.46	1.47	1.45	1.50	1.57	1.21	0.99
1987	1.52	1.29	1.40	1.49	1.60	1.62	1.76	1.79	1.84	1.78	1.82	1.84	1.56	0.94
1988	2.63	2.86	2.54	2.57	2.56	2.41	2.47	2.52	2.46	2.41	2.24	2.13	2.61	0.90
1989	1.82	1.53	1.47	1.38	1.47	1.48	1.53	1.47	1.43	1.39	1.44	1.45	1.49	0.85
1990	1.33	1.15	1.06	1.09	1.14	1.16	1.17	1.13	1.13	1.16	1.16	1.16	1.14	0.81
1991	1.08	1.08	1.09	1.12	1.21	1.25	1.25	1.31	1.44	1.44	1.46	1.43	1.21	0.83
1992	1.38	1.32	1.23	1.28	1.31	1.35	1.36	1.42	1.42	1.43	1.45	1.51	1.32	0.88
1993	1.43	1.36	1.32	1.31	1.33	1.42	1.41	1.41	1.42	1.40	1.36	1.50	1.36	0.88
1994	1.31	1.19	1.16	1.18	1.28									

See footnotes at end of table.

Continued--

Appendix table 13--Average prices received by farmers, United States, by month, and loan rate, 1973-94 1/--Continued

Year	June	July	Aug.	Sept.	Oct. 2/	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average 3/	Loan rate
						$/bu.								
All barley:														
1973	1.55	1.58	2.10	2.16	2.23	2.10	2.19	2.32	2.52	2.61	2.15	2.19	2.14	0.86
1974	2.25	2.35	2.78	2.86	3.11	3.41	3.30	3.17	2.89	2.55	2.72	2.75	2.81	0.90
1975	2.30	2.35	2.56	2.69	2.68	2.43	2.35	2.31	2.31	2.34	2.31	2.41	2.42	0.90
1976	2.60	2.51	2.35	2.33	2.22	2.11	2.08	2.19	2.19	2.25	2.22	2.12	2.25	1.22
1977	1.93	1.53	1.53	1.69	1.63	1.82	1.79	1.90	1.98	1.90	1.93	2.15	1.78	1.63
1978	2.04	1.83	1.86	1.85	1.90	1.93	1.90	1.95	1.87	1.89	1.96	2.07	1.92	1.63
1979	2.30	2.22	2.23	2.33	2.32	2.40	2.32	2.27	2.23	2.18	2.15	2.21	2.27	1.71
1980	2.36	2.52	2.59	2.65	2.81	2.90	2.97	3.09	3.05	3.04	3.04	3.00	2.79	1.83
1981	2.94	2.41	2.37	2.44	2.38	2.49	2.48	2.50	2.40	2.40	2.42	2.53	2.48	1.95
1982	2.39	2.16	2.20	2.17	1.98	2.06	2.19	2.16	2.00	2.09	2.22	2.36	2.18	2.08
1983	2.32	2.20	2.34	2.46	2.53	2.55	2.55	2.55	2.47	2.50	2.54	2.78	2.47	2.16
1984	2.61	2.54	2.26	2.25	2.29	2.25	2.19	2.24	2.21	2.18	2.16	2.22	2.29	2.08
1985	2.14	2.08	1.98	1.88	1.96	2.05	2.07	2.05	1.95	1.88	1.85	1.73	1.98	2.08
1986	1.57	1.67	1.51	1.45	1.58	1.69	1.62	1.60	1.63	1.69	1.69	1.76	1.61	1.56
1987	1.74	1.82	2.00	1.87	1.72	1.88	1.83	1.78	1.72	1.65	1.74	1.77	1.81	1.49
1988	2.45	2.97	2.96	2.94	2.86	2.96	2.73	2.74	2.67	2.74	2.73	2.64	2.80	1.44
1989	2.34	2.16	2.70	2.47	2.41	2.47	2.47	2.33	2.33	2.19	2.22	2.36	2.42	1.34
1990	2.29	2.16	2.13	2.13	2.04	2.16	2.13	2.14	2.13	2.15	2.10	2.05	2.14	1.28
1991	1.90	1.73	2.06	2.06	2.10	2.20	2.24	2.21	2.15	2.12	2.14	2.22	2.10	1.32
1992	2.09	2.26	2.16	1.84	1.92	2.05	1.95	2.07	2.00	2.00	2.09	1.97	2.04	1.40
1993	1.95	1.90	2.02	1.87	1.82	2.21	2.03	2.15	2.07	1.99	2.02	2.11	1.99	1.40
1994	1.91	1.95	2.05	2.04	2.05									

Year	June	July	Aug.	Sept.	Oct. 2/	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
						$/bu.						
Feed barley:												
1979	2.38	2.22	2.21	2.29	2.20	2.18	2.23	2.14	2.24	2.16	2.09	2.21
1980	2.38	2.43	2.46	2.56	2.70	2.75	2.96	3.09	2.98	2.99	2.90	3.01
1981	2.98	2.36	2.23	2.32	2.30	2.29	2.29	2.41	2.28	2.29	2.35	2.58
1982	2.52	2.23	1.98	1.91	1.87	1.94	1.98	2.07	1.99	2.08	2.26	2.43
1983	2.52	2.31	2.23	2.41	2.45	2.51	2.52	2.58	2.47	2.54	2.55	2.86
1984	2.72	2.60	2.10	2.13	2.19	2.19	2.20	2.22	2.27	2.19	2.16	2.30
1985	2.26	2.05	1.75	1.74	1.85	1.90	2.03	2.00	1.90	1.83	1.85	1.81
1986	1.61	1.44	1.21	1.33	1.49	1.62	1.59	1.56	1.61	1.69	1.71	1.84
1987	1.79	1.67	1.54	1.57	1.66	1.68	1.63	1.65	1.64	1.59	1.73	1.76
1988	2.07	2.34	2.37	2.39	2.34	2.30	2.27	2.28	2.29	2.35	2.32	2.27
1989	2.18	1.96	2.06	1.98	1.97	2.09	2.10	2.02	2.01	1.99	2.08	2.28
1990	2.26	2.04	1.77	1.85	1.91	1.95	1.89	2.02	1.94	1.95	1.99	2.00
1991	1.91	1.63	1.63	1.84	1.90	1.96	2.02	1.96	1.99	1.99	2.00	2.19
1992	2.06	1.99	1.73	1.72	1.78	1.78	1.79	1.85	1.86	1.83	1.84	1.87
1993	1.98	1.78	1.64	1.58	1.66	1.77	1.90	1.97	1.94	1.86	1.86	2.04
1994	1.83	1.82	1.71	1.77	1.87							
Malting barley:												
1979	2.18	2.22	2.24	2.40	2.44	2.53	2.39	2.30	2.23	2.20	2.19	2.21
1980	2.34	2.61	2.72	2.81	2.97	3.04	2.99	3.08	3.11	3.10	3.14	2.99
1981	2.86	2.48	2.58	2.66	2.49	2.68	2.63	2.70	2.55	2.50	2.48	2.42
1982	2.26	2.10	2.38	2.58	2.22	2.26	2.39	2.32	2.00	2.09	2.13	2.18
1983	2.05	2.06	2.50	2.69	2.72	2.61	2.61	2.50	2.47	2.46	2.54	2.53
1984	2.52	2.48	2.50	2.52	2.52	2.39	2.18	2.29	2.11	2.17	2.17	2.10
1985	2.02	2.13	2.49	2.33	2.24	2.32	2.19	2.13	1.99	1.93	1.85	1.66
1986	1.52	2.07	2.23	1.85	1.83	1.78	1.65	1.70	1.69	1.69	1.65	1.66
1987	1.68	2.04	2.55	2.39	1.88	2.07	2.01	2.15	1.80	1.69	1.75	1.81
1988	2.80	3.26	3.38	3.47	3.41	3.34	3.27	3.32	3.22	3.22	3.16	3.04
1989	2.62	2.68	3.04	2.87	2.89	2.90	2.88	2.73	2.61	2.45	2.51	2.53
1990	2.35	2.37	2.47	2.42	2.29	2.34	2.44	2.24	2.33	2.40	2.26	2.10
1991	1.88	2.02	2.80	2.65	2.66	2.54	2.45	2.53	2.47	2.31	2.40	2.27
1992	2.15	2.51	2.60	2.11	2.14	2.23	2.11	2.28	2.13	2.17	2.32	2.14
1993	1.92	2.06	2.58	2.41	2.29	2.53	2.32	2.50	2.50	2.26	2.40	2.28
1994	2.08	2.16	2.34	2.34	2.39							

1/ Prices do not include an allowance for loans outstanding and government purchases. 2/ October 1994 data are preliminary. 3/ U.S. season-average prices based on monthly prices weighted by monthly marketings.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

Appendix table 14--Cash prices at principal markets, 1973-94

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						$/bu.							
Corn, no. 2 yellow; Gulf Ports (Barge delivered to Louisiana Gulf):													
1973	2.72	2.70	2.74	2.87	3.11	3.33	3.21	2.90	2.89	2.96	3.36	3.70	3.04
1974	3.59	3.86	3.68	3.69	3.34	3.06	3.05	3.03	2.90	3.02	3.03	3.29	3.30
1975	3.11	2.98	2.80	2.77	2.80	2.88	2.87	2.82	3.00	3.09	3.08	2.95	2.93
1976	2.92	2.70	2.51	2.63	2.83	2.81	2.73	2.68	2.56	2.40	2.16	1.95	2.57
1977	1.99	2.11	2.37	2.44	2.42	2.57	2.64	2.83	2.86	2.70	2.45	2.34	2.48
1978	2.31	2.44	2.54	2.49	2.66	2.72	2.77	2.83	2.85	3.05	3.33	3.02	2.75
1979	3.00	3.03	2.96	2.94	2.68	2.89	2.80	2.74	2.81	2.89	3.33	3.64	2.98
1980	3.58	3.57	3.72	3.73	3.78	3.64	3.61	3.69	3.58	3.46	3.51	3.23	3.59
1981	2.93	2.84	2.83	2.74	2.92	2.87	2.92	3.00	3.00	2.94	2.82	2.58	2.87
1982	2.55	2.33	2.62	2.68	2.74	2.98	3.18	3.39	3.40	3.43	3.57	3.88	3.06
1983	3.75	3.76	3.74	3.64	3.60	3.48	3.74	3.76	3.71	3.73	3.62	3.52	3.67
1984	3.31	3.08	2.98	2.90	3.03	3.04	3.05	3.05	2.96	2.95	2.92	2.67	2.99
1985	2.59	2.50	2.69	2.75	2.72	2.63	2.56	2.57	2.68	2.63	2.12	1.85	2.52
1986	1.68	1.66	1.83	1.81	1.73	1.70	1.83	1.89	2.06	2.06	1.95	1.81	1.83
1987	1.86	1.99	2.08	2.11	2.20	2.23	2.29	2.28	2.29	3.05	3.22	3.02	2.39
1988	3.08	3.07	2.89	2.99	3.01	2.99	3.02	2.93	2.99	2.87	2.73	2.57	2.93
1989	2.60	2.40	2.75	2.75	2.69	2.70	2.72	3.01	3.08	3.05	2.92	2.79	2.79
1990	2.59	2.55	2.54	2.60	2.68	2.70	2.77	2.80	2.69	2.65	2.67	2.79	2.67
1991	2.76	2.76	2.72	2.71	2.70	2.89	2.96	2.77	2.77	2.80	2.61	2.48	2.74
1992	2.50	2.40	2.42	2.39	2.39	2.40	2.48	2.55	2.50	2.36	2.59	2.55	2.46
1993	2.57	2.68	2.94	3.08	3.22	3.14	3.05	2.88	2.81	2.85	2.51	2.44	2.85
1994	2.48												
Corn, no. 2 yellow, St. Louis:													
1973	2.29	2.28	2.40	2.63	2.84	3.03	2.91	2.64	2.63	2.82	3.29	3.52	2.77
1974	3.49	3.60	3.45	3.44	3.16	2.93	2.87	2.89	2.76	2.86	2.90	3.10	3.12
1975	2.90	2.62	2.53	2.56	2.60	2.66	2.69	2.66	2.81	2.90	2.91	2.78	2.72
1976	2.69	2.41	2.27	2.44	2.51	2.48	2.48	2.46	2.37	2.22	1.99	1.72	2.34
1977	1.66	1.75	2.14	2.23	2.30	2.24	2.38	2.46	2.49	2.45	2.27	2.12	2.21
1978	2.05	2.13	2.25	2.30	2.33	2.41	2.47	2.53	2.60	2.77	2.95	2.73	2.46
1979	2.68	2.59	2.51	2.66	2.50	2.64	2.54	2.53	2.60	2.66	3.01	3.31	2.69
1980	3.26	3.35	3.53	3.59	3.60	3.47	3.42	3.49	3.42	3.33	3.34	3.03	3.40
1981	2.61	2.53	2.59	2.54	2.65	2.61	2.66	2.78	2.78	2.75	2.68	2.42	2.63
1982	2.32	2.12	2.43	2.49	2.52	2.79	2.99	3.24	3.24	3.27	3.39	3.68	2.87
1983	3.60	3.50	3.53	3.45	3.41	3.31	3.55	3.61	3.58	3.57	3.43	3.33	3.49
1984	3.09	2.84	2.77	2.75	2.86	2.84	2.86	2.88	2.81	2.79	2.72	2.47	2.81
1985	2.38	2.27	2.50	2.59	2.55	2.50	2.42	2.46	2.56	2.52	2.01	1.67	2.37
1986	1.47	1.46	1.68	1.69	1.61	1.57	1.65	1.74	1.93	1.92	1.79	1.65	1.68
1987	1.65	1.78	1.91	1.97	2.05	2.07	2.09	2.10	2.13	2.77	2.96	2.81	2.19
1988	2.82	2.82	2.70	2.76	2.81	2.79	2.82	2.76	2.83	2.58	2.57	2.38	2.72
1989	2.38	2.39	2.48	2.44	2.45	2.48	2.57	2.77	2.86	2.85	2.75	2.59	2.58
1990	2.37	2.32	2.65	2.41	2.46	2.50	2.58	2.61	2.52	2.47	2.45	2.54	2.49
1991	2.44	2.46	2.50	2.53	2.51	2.73	2.78	2.59	2.63	2.61	2.32	2.32	2.53
1992	2.23	2.01	2.16	2.20	2.20	2.23	2.28	2.36	2.33	2.23	2.38	2.37	2.25
1993	2.30	2.39	2.78	2.96	3.07	3.00	2.91	2.72	2.69	2.71	2.29	2.27	2.67
1994	2.19												
Corn, no. 2 yellow, Omaha:													
1973	2.37	2.34	2.40	2.49	2.71	2.95	2.76	2.49	2.51	2.68	3.19	3.55	2.70
1974	3.46	3.63	3.46	3.36	3.07	2.79	2.75	2.85	2.81	2.84	2.92	3.12	3.09
1975	2.95	2.75	2.55	2.56	2.57	2.60	2.62	2.59	2.74	2.86	2.83	2.69	2.69
1976	2.59	2.36	2.17	2.30	2.38	2.38	2.35	2.29	2.21	2.10	1.90	1.66	2.22
1977	1.67	1.79	2.02	2.04	2.02	2.03	2.14	2.25	2.34	2.33	2.13	1.98	2.06
1978	1.95	2.05	2.04	2.09	2.12	2.13	2.17	2.26	2.40	2.59	2.68	2.45	2.24
1979	2.37	2.37	2.32	2.36	2.26	2.33	2.23	2.32	2.43	2.50	2.81	2.98	2.44
1980	3.01	3.16	3.34	3.30	3.29	3.18	3.17	3.24	3.24	3.19	3.15	2.79	3.17
1981	2.51	2.44	2.39	2.37	2.47	2.45	2.48	2.61	2.65	2.65	2.54	2.23	2.48
1982	2.23	2.12	2.35	2.37	2.42	2.62	2.82	3.09	3.10	3.11	3.18	3.39	2.73
1983	3.32	3.23	3.24	3.17	3.11	3.03	3.25	3.33	3.35	3.37	3.22	3.11	3.23
1984	2.94	2.71	2.61	2.55	2.60	2.61	2.68	2.73	2.68	2.70	2.61	2.39	2.65
1985	2.35	2.26	2.28	2.36	2.33	2.31	2.31	2.34	2.43	2.42	2.01	1.61	2.25
1986	1.41	1.40	1.55	1.54	1.44	1.39	1.47	1.57	1.76	1.77	1.59	1.47	1.53
1987	1.51	1.57	1.68	1.75	1.79	1.84	1.86	1.87	1.96	2.64	2.72	2.55	1.98
1988	2.57	2.61	2.47	2.54	2.57	2.54	2.58	2.38	2.56	2.48	2.36	2.22	2.49
1989	2.22	2.26	2.28	2.28	2.25	2.25	2.36	2.56	2.66	2.68	2.61	2.46	2.41
1990	2.21	2.12	2.14	2.22	2.24	2.28	2.38	2.46	2.39	2.33	2.29	2.34	2.28
1991	2.34	2.30	2.29	2.32	2.37	2.44	2.52	2.43	2.46	2.48	2.27	2.10	2.36
1992	2.10	1.99	1.99	1.98	2.01	2.00	2.12	2.18	2.17	2.07	2.29	2.30	2.10
1993	2.25	2.43	2.66	2.82	2.86	2.84	2.72	2.58	2.62	2.64	2.23	2.19	2.57
1994	2.11												

See footnotes at end of table.

Continued--

Appendix table 14--Cash prices at principal markets, 1973-94--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						$/bu.							
Corn, no. 2 yellow, Chicago:													
1973	2.47	2.37	2.50	2.68	2.90	3.13	2.99	2.69	2.70	2.93	3.35	3.63	2.86
1974	3.55	3.74	3.48	3.47	3.19	2.96	2.90	2.96	2.82	2.89	2.95	3.12	3.17
1975	2.99	2.74	2.58	2.59	2.62	2.70	2.68	2.68	2.84	2.96	2.96	2.84	2.76
1976	2.77	2.49	2.33	2.44	2.53	2.54	2.52	2.50	2.41	2.27	2.05	1.78	2.39
1977	1.80	1.84	2.14	2.19	2.19	2.21	2.36	2.51	2.57	2.51	2.28	2.17	2.23
1978	2.13	2.22	2.28	2.27	2.29	2.35	2.42	2.53	2.66	2.83	3.00	2.83	2.48
1979	2.78	2.73	2.59	2.69	2.54	2.65	2.60	2.61	2.70	2.70	3.08	3.36	2.75
1980	3.44	3.43	3.43	3.54	3.56	3.49	3.48	3.53	3.47	3.41	3.41	3.09	3.44
1981	2.72	2.61	2.60	2.52	2.63	2.63	2.67	2.69	2.73	2.72	2.61	2.36	2.62
1982	2.17	2.07	2.38	2.44	2.54	2.74	2.98	3.12	3.11	3.28	3.33	3.60	2.81
1983	3.52	3.47	3.51	3.38	3.30	3.29	3.52	3.61	3.61	3.62	3.45	3.23	3.46
1984	2.95	2.81	2.79	2.72	2.79	2.79	2.84	2.90	2.85	2.83	2.76	2.50	2.79
1985	2.31	2.26	2.46	2.50	2.51	2.49	2.45	2.46	2.55	2.52	1.98	1.68	2.35
1986	1.49	1.51	1.68	1.66	1.57	1.50	1.60	1.69	1.89	1.88	1.68	1.53	1.64
1987	1.62	1.73	1.86	1.89	1.95	2.01	2.03	2.03	2.09	2.74	2.93	2.79	2.14
1988	2.79	2.81	2.65	2.69	2.74	2.72	2.78	2.72	2.77	2.66	2.50	2.30	2.68
1989	2.32	2.36	2.37	2.39	2.36	2.41	2.50	2.72	2.83	2.84	2.73	2.63	2.54
1990	2.33	2.27	2.27	2.33	2.39	2.44	2.52	2.59	2.42	2.43	2.40	2.52	2.41
1991	2.48	2.50	2.46	2.50	2.59	2.67	2.72	2.58	2.60	2.59	2.37	2.23	2.52
1992	2.17	2.06	2.13	2.17	2.18	2.14	2.23	2.32	2.29	2.20	2.38	2.37	2.22
1993	2.34	2.43	2.77	2.96	3.02	2.99	2.89	2.78	2.75	2.71	2.32	2.24	2.68
1994	2.17												
						$/cwt.							
Grain sorghum no. 2 yellow, Gulf Ports (Rail delivered to Texas Gulf):													
1973	4.78	4.96	4.84	4.96	5.25	5.50	5.15	4.68	4.35	4.25	5.26	5.80	4.98
1974	5.84	6.77	6.63	6.35	5.39	4.95	5.04	5.06	5.02	4.80	4.69	5.55	5.51
1975	5.36	5.24	4.94	4.91	4.92	4.99	5.01	4.89	4.89	4.97	5.13	4.60	4.99
1976	4.80	4.45	4.24	4.37	4.52	4.52	4.43	4.25	4.16	3.82	3.64	3.43	4.22
1977	3.49	3.68	4.08	4.08	4.00	4.08	4.34	4.59	4.62	4.40	4.11	3.98	4.12
1978	3.95	4.26	4.38	4.34	4.40	4.44	4.46	4.46	4.56	4.96	5.40	5.05	4.55
1979	5.11	5.27	5.28	5.36	5.10	5.39	5.20	5.19	5.29	5.42	6.03	6.49	5.43
1980	6.43	6.48	6.79	6.71	6.65	6.46	6.40	6.38	6.34	5.76	5.60	5.29	6.27
1981	5.00	4.91	5.10	5.08	5.27	5.14	5.11	5.21	5.30	5.01	4.66	4.54	5.03
1982	4.36	4.44	5.00	5.06	5.20	5.49	5.64	5.98	6.05	5.78	5.68	6.18	5.41
1983	6.15	5.99	6.01	5.94	5.87	5.70	5.93	5.88	5.98	5.84	5.05	4.86	5.77
1984	4.75	4.60	4.84	5.04	5.19	5.10	5.32	5.36	5.23	4.78	4.49	4.04	4.90
1985	3.70	3.97	4.34	4.52	4.45	4.30	4.28	4.50	4.80	3.90	3.37	2.71	4.07
1986	2.95	3.15	3.26	3.15	3.05	3.09	3.35	3.30	3.51	3.50	3.30	3.04	3.22
1987	3.13	3.35	3.55	3.50	3.65	3.80	3.86	3.70	3.73	5.00	5.33	4.93	3.96
1988	4.99	4.91	4.64	4.93	4.99	4.99	5.02	4.89	5.05	4.75	4.02	4.53	4.81
1989	4.67	4.61	4.69	4.70	4.62	4.59	4.70	4.97	5.04	4.87	4.95	4.73	4.76
1990	4.52	4.43	4.43	4.60	4.76	4.82	4.97	4.94	4.64	4.45	4.54	4.72	4.65
1991	4.81	4.86	4.79	4.90	5.08	5.30	5.39	5.00	4.89	4.72	4.27	4.26	4.86
1992	4.26	4.11	4.22	4.33	4.33	4.29	4.32	4.30	4.22	4.03	4.38	4.41	4.27
1993	4.40	4.55	5.15	5.43	5.52	5.41	5.22	4.89	4.88	4.77	4.28	4.29	4.90
1994	4.16												
Sorghum, no. 2 yellow, Kansas City:													
1973	4.37	4.37	4.31	4.37	4.71	4.99	4.64	4.03	3.84	3.99	5.02	5.79	4.53
1974	5.64	6.32	6.10	5.70	4.95	4.55	4.48	4.64	4.60	4.53	4.82	5.13	5.12
1975	4.66	4.53	4.36	4.33	4.36	4.47	4.62	4.47	4.47	4.66	4.73	4.29	4.50
1976	4.27	3.88	3.60	3.77	3.91	3.85	3.75	3.62	3.53	3.28	3.15	2.73	3.61
1977	2.78	3.05	3.40	3.36	3.37	3.49	3.78	3.92	3.92	3.82	3.54	3.41	3.49
1978	3.43	3.61	3.67	3.64	3.71	3.73	3.77	3.81	3.92	4.41	4.89	4.44	3.92
1979	4.34	4.42	4.41	4.57	4.21	4.35	4.20	4.15	4.31	4.49	5.36	5.71	4.54
1980	5.61	5.65	5.91	5.82	5.79	5.52	5.46	5.49	5.38	5.23	5.29	4.58	5.48
1981	4.16	4.14	4.14	4.27	4.44	4.26	4.28	4.45	4.48	4.50	4.38	4.02	4.29
1982	4.06	3.85	4.25	4.37	4.37	4.54	5.08	5.30	5.37	5.37	5.32	5.69	4.80
1983	5.55	5.37	5.25	5.16	5.09	5.03	5.40	5.36	5.39	5.40	4.95	4.74	5.22
1984	4.46	4.25	4.28	4.32	4.48	4.33	4.58	4.76	4.74	4.74	4.50	4.06	4.46
1985	3.56	3.62	3.75	3.97	3.95	3.80	3.82	4.00	4.25	4.00	3.20	2.71	3.72
1986	2.47	2.60	2.70	2.62	2.50	2.57	2.80	2.85	3.10	3.20	2.80	2.55	2.73
1987	2.64	2.75	2.90	2.95	3.05	3.24	3.27	3.16	3.21	4.58	4.79	4.28	3.40
1988	4.27	4.17	4.00	4.23	4.24	4.26	4.32	4.17	4.29	4.15	3.96	3.92	4.17
1989	4.73	3.91	4.00	3.98	3.91	3.84	4.01	4.32	4.47	4.54	4.48	4.27	4.21
1990	3.89	3.79	3.85	3.97	4.12	4.21	4.35	4.34	4.13	4.02	4.05	4.22	4.08
1991	4.24	4.30	4.27	4.35	4.44	4.62	4.78	4.41	4.54	4.51	4.05	3.77	4.36
1992	3.76	3.60	3.61	3.70	3.70	3.66	3.70	3.72	3.82	3.58	3.99	4.01	3.74
1993	3.89	4.03	4.60	4.91	4.93	4.81	4.64	4.33	4.38	4.43	3.79	3.73	4.37
1994	3.72												

See footnotes at end of table.

Continued--

Appendix table 14--Cash prices at principal markets, 1973-94--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						$/cwt.							
Sorghum, no. 2 yellow, Texas High Plains:													
1973	4.50	4.44	4.40	4.43	4.75	5.22	4.89	4.42	4.22	4.08	4.91	5.80	4.67
1974	5.74	6.26	6.12	5.82	5.00	4.52	4.41	4.70	4.64	4.63	4.67	5.23	5.14
1975	5.03	4.56	4.32	4.32	4.29	4.38	4.47	4.48	4.49	4.63	5.01	4.40	4.53
1976	4.33	3.97	3.73	3.79	3.86	3.86	3.86	3.77	3.67	3.50	3.46	3.10	3.74
1977	3.13	3.38	3.58	3.63	3.62	3.67	4.04	4.28	4.25	4.27	4.12	3.93	3.82
1978	3.85	4.06	4.13	4.08	4.04	4.05	4.01	4.06	4.21	4.83	5.39	4.97	4.31
1979	4.92	4.83	4.76	4.75	4.49	4.56	4.46	4.48	4.78	4.99	5.71	5.89	4.88
1980	5.95	6.27	6.62	6.42	6.26	5.93	5.79	5.88	5.90	5.83	5.80	5.02	5.97
1981	4.65	4.70	4.71	4.63	4.77	4.78	4.75	4.91	5.26	5.28	5.24	4.80	4.87
1982	4.39	4.08	4.38	4.65	4.82	5.19	5.52	5.94	5.76	5.81	5.86	5.85	5.19
1983	5.77	5.56	5.49	5.43	5.35	5.14	5.33	5.68	5.67	5.77	5.72	5.46	5.53
1984	5.22	4.95	4.86	4.90	4.84	4.86	4.98	5.14	5.22	5.25	5.24	NQ	5.04
1985	4.19	4.38	4.30	4.49	4.47	4.36	4.33	4.48	4.77	4.84	3.93	3.36	4.32
1986	3.35	3.24	2.97	3.06	2.94	2.89	3.06	3.32	3.56	3.60	3.58	3.30	3.24
1987	3.19	3.27	3.27	3.39	3.40	3.53	3.56	3.54	3.55	4.84	5.25	4.96	3.81
1988	4.98	4.95	4.62	4.63	4.75	4.69	4.72	4.63	4.50	4.59	4.46	4.44	4.66
1989	4.39	4.13	4.06	4.03	4.04	4.02	4.10	4.38	4.96	4.94	4.82	4.63	4.38
1990	4.27	4.17	4.28	4.49	4.49	4.57	4.69	4.66	4.66	4.48	4.39	4.57	4.48
1991	4.52	4.56	4.57	4.61	4.76	4.92	5.04	4.93	5.01	5.03	4.85	4.54	4.78
1992	4.14	3.68	3.72	3.86	4.30	3.86	4.04	4.14	4.05	3.95	4.47	4.46	4.06
1993	4.43	4.64	5.18	5.51	5.52	5.35	5.12	4.80	4.90	4.98	4.46	4.46	4.95
1994	4.41												

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	May	Average
						$/bu.							
Barley, no. 3 or better malting, 65% or better plump, Minneapolis:													
1973	1.74	1.82	2.45	2.64	2.64	2.62	2.64	2.76	3.27	3.57	2.98	2.94	2.67
1974	3.11	3.38	3.77	4.00	4.42	4.78	4.65	4.62	4.45	4.15	4.34	4.28	4.16
1975	3.97	3.83	3.65	3.93	3.83	3.56	3.35	3.24	3.21	3.22	3.17	3.22	3.52
1976	3.55	3.59	3.37	3.24	3.21	3.00	2.95	3.00	2.91	2.98	2.91	2.83	3.13
1977	2.38	2.02	1.92	2.15	2.25	2.36	2.32	2.26	2.33	2.32	2.44	2.51	2.27
1978	2.39	2.13	2.19	2.27	2.26	2.47	2.40	2.30	2.33	2.46	2.59	2.73	2.38
1979	2.80	2.82	2.67	3.10	3.18	3.06	2.93	2.87	2.81	2.69	2.73	2.82	2.87
1980	2.99	3.36	3.27	3.63	3.80	3.88	3.77	3.75	3.83	3.71	3.84	3.80	3.64
1981	3.34	2.95	3.15	3.05	3.02	3.07	2.92	3.00	3.14	2.99	2.98	3.05	3.06
1982	2.93	2.63	2.48	2.37	2.42	2.45	2.37	2.38	2.42	2.45	2.68	2.76	2.53
1983	2.60	2.54	2.76	2.90	2.96	2.95	2.77	2.85	2.76	2.91	3.04	3.06	2.84
1984	3.04	2.86	2.48	2.44	2.43	2.43	2.36	2.46	2.47	2.51	2.52	2.55	2.55
1985	2.46	2.25	2.03	2.15	2.10	2.27	2.29	2.28	2.20	2.34	2.40	2.07	2.24
1986	1.84	1.75	1.61	1.76	1.93	2.02	1.88	1.81	1.92	2.01	2.05	2.12	1.89
1987	2.07	1.93	1.73	1.98	2.08	2.05	2.01	2.02	2.15	2.08	2.11	2.24	2.04
1988	3.61	3.87	4.25	4.40	4.39	4.14	3.82	4.14	4.19	4.33	4.29	3.84	4.11
1989	3.02	3.33	3.57	3.43	3.48	3.18	3.19	3.20	3.02	3.83	2.97	3.17	3.28
1990	2.92	2.35	2.35	2.32	2.30	2.40	2.31	2.33	2.38	2.46	2.48	2.41	2.42
1991	2.26	2.14	2.14	2.21	2.38	2.50	2.54	2.51	2.51	2.50	2.50	NQ	2.38
1992	2.58	2.59	2.19	2.30	2.39	2.35	2.36	2.36	2.32	2.33	2.34	2.34	2.37
1993	2.30	2.27	2.27	2.18	2.26	2.48	2.57	2.55	2.63	2.65	2.73	2.84	2.48
1994	2.86	2.57	2.46	2.57									
Barley, no. 2 or better feed, Duluth: 1/, 2/													
1973	1.51	1.67	2.12	2.12	2.02	1.80	2.12	2.34	2.51	2.32	1.74	2.10	2.03
1974	2.36	2.36	2.69	2.48	3.07	3.17	2.89	2.82	2.59	2.26	2.24	2.05	2.58
1975	1.67	2.04	2.77	3.00	2.83	2.42	2.23	2.11	2.26	2.38	2.39	2.50	2.38
1976	2.62	2.45	2.48	2.68	2.46	2.21	2.05	2.20	2.35	2.29	2.28	2.13	2.35
1977	1.76	1.63	1.50	1.58	1.66	1.65	1.65	1.65	1.65	1.66	1.91	1.90	1.68
1978	1.84	1.71	1.68	1.77	1.81	1.88	1.79	1.71	1.69	1.86	1.89	1.96	1.80
1979	2.16	2.39	2.15	2.22	2.34	2.11	2.15	2.09	2.04	2.06	2.12	2.09	2.16
1980	2.15	2.48	2.39	2.43	2.77	3.03	2.75	2.81	2.90	2.63	2.51	2.39	2.60
1981	2.09	2.26	2.35	2.21	2.26	2.31	2.06	2.20	2.27	2.16	2.16	2.24	2.21
1982	2.12	1.85	1.72	1.69	1.54	1.58	1.59	1.63	1.72	1.73	2.01	1.95	1.76
1983	1.96	1.95	2.42	2.61	2.60	2.53	2.39	2.55	2.56	2.65	2.74	2.77	2.48
1984	2.59	2.18	2.13	2.05	2.10	2.06	1.88	1.98	1.99	1.97	2.05	2.05	2.09
1985	1.90	1.66	1.46	1.40	1.41	1.49	1.60	1.57	NQ	NQ	NQ	1.31	1.53
1986	1.23	1.16	1.13	1.27	1.50	1.63	1.23	NQ	NQ	1.64	1.76	1.86	1.44
1987	1.73	1.59	1.60	1.76	1.78	1.82	1.74	1.72	1.77	1.88	1.94	1.98	1.78
1988	2.41	2.38	2.08	2.24	2.32	2.27	2.14	2.24	2.33	2.49	2.52	2.41	2.32
1989	2.12	2.11	2.17	2.13	2.16	2.15	2.23	2.28	2.20	2.27	2.27	2.33	2.20
1990	2.39	2.17	1.99	2.01	2.11	2.16	2.07	2.09	2.15	2.14	2.12	2.13	2.13
1991	2.02	1.89	1.92	2.08	2.18	2.23	2.18	2.20	2.28	2.30	2.35	2.38	2.17
1992	2.30	2.15	2.03	2.12	2.11	2.08	2.06	2.06	2.08	2.10	2.12	2.05	2.11
1993	1.99	1.96	1.89	1.89	2.01	2.16	2.14	2.15	2.16	2.07	2.08	2.11	2.05
1994	2.05	2.02	1.99	2.04									

See footnotes at end of table.

Continued--

Appendix table 14--Cash prices at principal markets, 1973-94--Continued

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	May	Average
						$/bu.							
Barley, no. 2 Western, Portland:													
1973	2.01	2.31	2.58	2.61	2.63	2.70	2.63	2.85	2.93	2.93	2.36	2.39	2.58
1974	2.51	2.79	3.14	3.23	3.41	3.68	3.56	3.18	2.82	2.47	2.75	2.68	3.02
1975	2.47	2.04	2.77	3.01	2.82	2.46	2.38	2.45	2.56	2.56	2.44	2.50	2.54
1976	2.65	2.70	2.55	2.61	2.49	2.28	2.28	2.50	2.63	2.34	2.36	2.41	2.48
1977	2.19	2.10	1.96	2.00	1.97	2.04	2.13	2.19	2.20	2.24	2.39	2.41	2.15
1978	2.41	2.24	2.22	2.02	1.94	1.97	2.05	2.08	1.98	2.04	2.09	2.14	2.10
1979	2.47	2.89	2.76	2.75	2.69	2.57	2.67	2.68	2.79	2.67	2.63	2.71	2.69
1980	2.78	3.03	2.88	2.93	3.34	3.56	3.63	3.68	3.71	3.58	3.48	3.50	3.34
1981	3.21	2.83	2.76	2.73	2.67	2.73	2.73	2.97	2.94	2.91	2.99	3.01	2.87
1982	2.82	2.54	2.56	2.46	2.22	2.49	2.40	2.45	2.44	2.49	2.61	2.73	2.52
1983	2.60	2.48	2.70	2.91	2.98	3.02	3.00	3.13	2.90	2.91	3.13	3.17	2.91
1984	3.05	2.59	2.57	2.53	2.58	2.62	2.65	2.58	2.56	2.49	2.46	2.44	2.59
1985	2.37	2.26	2.13	2.06	2.17	2.31	2.47	2.37	2.16	2.15	2.17	2.16	2.23
1986	1.98	1.79	1.75	1.73	1.97	2.01	1.86	2.00	2.12	2.09	2.11	2.17	1.96
1987	2.04	1.96	2.04	2.04	2.11	2.13	2.16	2.15	2.14	2.10	2.07	2.14	2.09
1988	2.67	2.80	2.72	2.66	2.65	2.77	2.75	2.75	2.71	2.82	2.84	2.79	2.74
1989	2.59	2.59	2.53	2.40	2.45	2.64	2.75	2.75	2.62	2.63	2.67	2.71	2.61
1990	2.75	2.55	2.40	2.47	2.52	2.63	2.61	2.66	2.70	2.75	2.84	2.86	2.65
1991	2.76	2.53	2.44	2.52	2.63	2.70	2.74	2.69	2.73	2.73	2.76	2.66	2.66
1992	2.76	2.69	2.57	2.55	2.54	2.52	2.55	2.55	2.56	2.54	2.50	2.47	2.57
1993	2.44	2.33	2.33	2.13	2.18	2.36	2.54	2.57	2.51	2.46	2.48	2.41	2.40
1994	2.43	2.37	2.38	2.44									
Oats, no. 2 Heavy White, Toledo:													
1973	1.01	1.04	1.23	1.27	1.31	1.32	1.49	1.63	1.75	1.67	1.48	1.46	1.39
1974	1.50	1.59	1.74	1.72	1.85	1.88	1.88	1.75	1.72	1.60	1.67	1.64	1.71
1975	1.61	1.52	1.47	1.41	1.35	1.48	1.49	1.53	1.58	1.56	1.52	1.54	1.50
1976	1.73	1.58	1.51	1.54	1.57	1.65	1.77	1.83	1.91	1.85	1.80	1.81	1.71
1977	1.61	1.33	1.19	1.15	1.17	1.40	1.53	1.53	1.50	1.43	1.47	1.51	1.40
1978	1.49	1.29	1.27	1.24	1.29	1.39	1.39	1.42	1.44	1.39	1.38	1.45	1.37
1979	1.59	1.60	1.47	1.44	1.45	1.56	1.64	1.64	1.64	1.65	1.70	1.80	1.60
1980	1.89	1.79	1.78	1.85	2.00	2.22	2.39	2.51	2.49	2.39	2.36	2.39	2.17
1981	2.40	2.03	1.98	1.97	2.14	2.31	2.25	2.32	2.37	2.35	2.31	2.33	2.23
1982	2.17	1.61	1.39	1.34	1.37	1.49	1.58	1.58	1.54	1.52	1.52	1.53	1.55
1983	1.56	1.54	1.77	1.98	2.12	2.21	2.24	2.25	2.07	2.12	2.16	2.08	2.01
1984	2.06	2.06	2.00	1.95	1.92	1.96	1.94	1.96	1.96	1.88	1.75	1.60	1.92
1985	1.54	1.33	1.04	0.96	0.91	1.01	1.09	1.08	1.10	1.08	0.95	0.92	1.08
1986	0.81	0.82	0.83	0.81	0.93	1.23	1.43	1.52	1.55	1.34	1.44	1.69	1.20
1987	1.56	1.24	1.55	1.62	1.62	1.77	1.83	1.83	1.87	1.77	1.73	1.73	1.68
1988	2.71	2.79	2.66	2.55	2.41	2.04	2.08	2.25	2.10	1.96	1.83	1.79	2.26
1989	1.53	1.39	1.30	1.30	1.34	1.37	1.46	1.40	1.37	1.41	1.46	1.47	1.40
1990	1.33	1.19	1.14	1.09	1.11	1.10	1.15	1.12	1.12	1.22	1.22	1.26	1.17
1991	1.14	1.24	1.29	1.28	1.31	1.30	1.34	1.41	1.58	1.61	1.48	1.50	1.37
1992	1.46	1.47	1.46	1.58	1.54	1.58	1.55	1.54	1.49	1.43	1.53	1.50	1.51
1993	1.42	1.50	1.49	1.43	1.41	1.38	1.37	1.43	1.40	1.37	1.37	1.25	1.40
1994	1.35	1.26	1.26	1.32									
Oats, no. 2 Heavy White, Minneapolis:													
1973	0.93	0.93	1.28	1.32	1.26	1.25	1.32	1.55	1.66	1.52	1.26	1.35	1.30
1974	1.43	1.63	1.68	1.71	1.87	1.80	1.74	1.64	1.64	1.49	1.72	1.78	1.68
1975	1.59	1.59	1.70	1.68	1.64	1.69	1.65	1.67	1.66	1.64	1.67	1.72	1.66
1976	1.93	1.84	1.67	1.67	1.66	1.62	1.67	1.78	1.80	1.76	1.81	1.68	1.74
1977	1.38	1.15	1.02	1.11	1.17	1.34	1.32	1.32	1.32	1.33	1.40	1.43	1.27
1978	1.36	1.24	1.28	1.36	1.39	1.47	1.40	1.47	1.54	1.60	1.48	1.55	1.43
1979	1.68	1.60	1.47	1.55	1.65	1.67	1.59	1.52	1.50	1.48	1.52	1.62	1.57
1980	1.67	1.80	1.70	1.86	1.96	2.15	2.16	2.20	2.25	2.23	2.21	2.23	2.04
1981	2.18	2.02	1.99	2.02	2.09	2.28	2.10	2.23	2.26	2.16	2.21	2.16	2.14
1982	2.12	1.87	1.53	1.51	1.51	1.67	1.67	1.67	1.63	1.63	1.73	1.71	1.69
1983	1.67	1.60	1.79	1.94	2.00	1.97	1.94	1.98	1.82	1.88	1.89	1.96	1.87
1984	1.92	1.84	1.77	1.79	1.84	1.92	1.87	1.81	1.82	1.79	1.73	1.65	1.81
1985	1.59	1.44	1.23	1.24	1.19	1.32	1.39	1.37	1.30	1.27	1.16	1.22	1.31
1986	1.18	1.05	1.12	1.29	1.39	1.72	1.66	1.64	1.56	1.46	1.59	1.83	1.46
1987	1.64	1.61	1.77	1.85	1.97	2.05	2.02	2.10	2.06	1.93	1.94	2.12	1.92
1988	3.26	3.25	3.09	3.07	2.99	2.71	2.74	2.87	2.59	2.49	2.30	2.22	2.80
1989	1.97	1.72	1.59	1.58	1.61	1.68	1.70	1.56	1.48	1.57	1.63	1.68	1.65
1990	1.52	1.37	1.25	1.23	1.29	1.30	1.24	1.22	1.18	1.27	1.32	1.36	1.30
1991	1.25	1.33	1.38	1.35	1.41	1.42	1.49	1.50	1.68	1.66	1.57	1.59	1.47
1992	1.55	1.49	1.45	1.58	1.52	1.59	1.63	1.66	1.63	1.63	1.66	1.57	1.58
1993	1.54	1.63	1.63	1.66	1.56	1.51	1.56	1.57	1.52	1.55	1.46	1.37	1.55
1994	1.47	1.36	1.44	1.44									

NQ = No quotes. 1/ Prior to June 1977 reported as barley, no. 3 or better. 2/ Reporting point changed from Minneapolis #2 feed to Duluth #2 feed beginning March 1987.

Source: Grain and Feed Market News, Agricultural Marketing Service, USDA.

Appendix table 15--Feed-price ratios for livestock, poultry, and milk, by month, 1973-94

Year	Sept.	Oct. 2/	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Hog/corn, U.S. basis: 1/													
1973	20.40	18.80	18.60	16.00	15.50	14.20	13.10	12.70	10.70	9.40	11.80	10.70	14.33
1974	10.20	10.80	11.10	11.70	12.40	13.50	14.50	14.70	17.00	17.70	19.80	19.00	14.37
1975	21.20	22.30	21.10	20.10	19.50	19.40	18.20	19.10	18.20	18.00	16.90	16.10	19.17
1976	15.30	14.10	15.40	16.30	16.30	16.80	15.80	15.60	18.10	19.80	23.80	26.30	17.80
1977	25.20	23.90	20.10	21.30	22.00	23.30	21.60	20.10	20.90	20.90	21.00	23.60	21.99
1978	24.20	25.80	23.40	23.00	24.00	24.10	21.80	19.40	18.40	15.90	14.40	14.30	20.72
1979	14.80	14.00	15.20	15.50	14.80	15.40	13.90	11.90	11.80	13.30	15.10	15.80	14.29
1980	15.30	15.80	14.70	13.70	12.80	12.80	11.90	12.00	12.60	15.00	15.70	17.10	14.12
1981	19.10	18.40	17.70	16.30	17.10	19.80	19.80	20.10	21.80	22.40	23.10	26.60	20.18
1982	28.50	28.20	24.60	23.70	23.40	21.90	18.60	15.90	15.10	14.40	13.90	13.90	20.17
1983	13.30	12.80	11.80	14.00	15.40	14.60	14.30	14.30	14.10	14.60	15.80	16.20	14.27
1984	16.00	16.50	18.40	19.00	18.20	18.40	16.30	15.30	15.40	16.90	17.60	17.40	17.12
1985	17.30	20.40	19.50	19.80	19.00	18.40	17.60	17.30	19.20	22.70	29.50	35.90	21.38
1986	40.20	37.90	35.90	33.70	31.90	33.90	32.20	33.40	32.80	35.00	37.30	39.90	35.34
1987	36.40	31.50	25.20	23.40	24.30	25.00	22.70	22.30	23.90	19.50	16.20	16.90	23.94
1988	15.70	15.00	14.40	15.70	15.70	15.60	15.10	14.40	16.10	17.90	18.60	20.10	16.19
1989	19.00	21.00	20.10	21.20	20.50	20.80	21.60	21.40	23.40	22.90	23.20	23.30	21.53
1990	22.30	23.30	25.90	21.50	22.00	22.50	21.50	21.00	22.70	23.70	23.90	22.00	22.69
1991	19.90	18.90	16.60	16.60	15.30	16.30	15.70	16.50	18.10	18.90	19.10	20.50	17.70
1992	19.50	20.50	20.80	21.20	20.30	22.00	22.10	21.00	21.90	23.00	20.60	21.00	21.16
1993	21.60	20.60	17.30	15.20	16.10	17.50	16.20	16.10	16.50	16.30	18.60	19.40	17.62
1994	16.10	16.80											
Beef-steer/corn, Omaha: 3/													
1973	19.00	17.90	16.70	15.80	17.40	15.70	15.50	16.70	16.10	14.20	13.70	13.10	15.98
1974	12.00	10.90	10.90	11.10	11.80	12.50	13.10	15.00	17.60	18.20	17.20	15.00	13.77
1975	16.60	17.40	17.70	17.60	16.00	14.90	13.80	16.60	14.80	14.20	13.40	13.80	15.57
1976	14.30	16.10	18.00	17.40	16.10	16.00	15.90	17.50	19.00	19.20	21.50	24.20	17.93
1977	24.20	23.60	20.70	21.10	21.60	22.20	22.70	23.30	24.50	23.80	25.60	26.50	23.32
1978	27.80	26.80	26.40	26.60	28.50	30.50	32.70	33.20	30.80	26.50	25.00	25.60	28.37
1979	28.60	27.80	28.90	29.10	29.40	29.00	30.00	27.20	26.60	26.60	25.10	24.30	27.72
1980	23.10	21.30	19.50	19.50	19.10	19.30	19.40	20.00	20.60	21.40	21.50	23.80	20.71
1981	26.00	25.20	25.00	25.00	24.60	25.90	26.50	26.50	27.20	26.50	26.10	29.20	26.14
1982	27.50	27.70	25.10	25.20	24.50	23.40	22.70	21.90	21.80	21.20	19.60	18.10	23.22
1983	17.80	18.40	18.30	19.80	21.60	22.10	21.10	20.40	19.70	19.10	20.40	20.70	19.95
1984	21.30	22.40	24.60	25.60	24.80	24.10	22.20	21.50	21.50	21.00	20.40	21.70	22.59
1985	21.80	25.70	27.80	26.70	25.60	24.40	24.00	22.90	23.00	22.30	28.90	36.70	25.82
1986	42.10	42.70	39.70	38.80	40.80	43.90	41.90	42.20	40.20	38.90	41.40	43.90	41.38
1987	42.10	41.40	38.40	36.70	36.40	37.40	38.20	39.40	38.60	29.50	24.40	26.10	35.72
1988	26.40	26.40	28.40	27.90	28.10	28.70	29.40	30.20	29.30	29.10	29.60	32.00	28.79
1989	30.80	31.10	32.20	32.80	34.20	34.00	32.60	31.10	29.30	27.90	28.50	30.90	31.28
1990	34.50	36.50	37.30	36.50	35.30	34.30	34.00	32.80	32.70	32.00	31.30	28.50	33.81
1991	28.80	29.90	30.50	29.70	29.90	31.00	30.40	31.60	30.60	29.40	32.20	34.70	30.73
1992	35.10	37.40	38.00	38.80	39.60	40.00	38.70	37.60	37.50	36.80	31.40	32.80	36.98
1993	32.00	29.60	26.40	25.00	24.80	25.10	26.90	28.40	26.00	23.90	28.80	29.50	27.20
1994	30.90	NA											
Milk/feed, U.S. basis: 4/													
1973	1.51	1.57	1.62	1.57	1.51	1.51	1.49	1.50	1.45	1.37	1.30	1.16	1.46
1974	1.22	1.21	1.23	1.20	1.30	1.30	1.33	1.31	1.30	1.30	1.34	1.36	1.28
1975	1.48	1.56	1.66	1.70	1.49	1.44	1.43	1.39	1.35	1.28	1.30	1.34	1.45
1976	1.34	1.37	1.38	1.34	1.31	1.26	1.28	1.28	1.23	1.26	1.35	1.46	1.32
1977	1.56	1.62	1.58	1.51	1.50	1.52	1.51	1.47	1.49	1.43	1.45	1.54	1.52
1978	1.59	1.64	1.62	1.63	1.62	1.59	1.58	1.56	1.53	1.51	1.43	1.51	1.57
1979	1.54	1.55	1.59	1.54	1.54	1.56	1.56	1.55	1.53	1.50	1.48	1.42	1.53
1980	1.40	1.43	1.40	1.39	1.39	1.39	1.41	1.39	1.35	1.36	1.40	1.43	1.40
1981	1.48	1.53	1.56	1.54	1.55	1.53	1.53	1.51	1.46	1.47	1.47	1.50	1.51
1982	1.57	1.61	1.62	1.60	1.59	1.56	1.55	1.49	1.45	1.43	1.45	1.41	1.53
1983	1.36	1.39	1.36	1.34	1.33	1.33	1.34	1.32	1.32	1.32	1.35	1.40	1.35
1984	1.48	1.56	1.62	1.59	1.57	1.57	1.55	1.51	1.47	1.45	1.44	1.47	1.52
1985	1.51	1.56	1.55	1.53	1.48	1.50	1.48	1.48	1.46	1.45	1.51	1.55	1.51
1986	1.61	1.75	1.77	1.77	1.73	1.69	1.63	1.61	1.57	1.57	1.56	1.58	1.65
1987	1.64	1.65	1.65	1.63	1.51	1.47	1.43	1.40	1.37	1.36	1.15	1.19	1.45
1988	1.26	1.32	1.36	1.38	1.38	1.35	1.30	1.29	1.28	1.29	1.37	1.43	1.33
1989	1.52	1.63	1.71	1.76	1.67	1.56	1.49	1.48	1.49	1.52	1.55	1.58	1.58
1990	1.54	1.45	1.40	1.29	1.31	1.30	1.27	1.27	1.27	1.28	1.37	1.44	1.35
1991	1.49	1.53	1.58	1.57	1.50	1.44	1.40	1.41	1.43	1.47	1.51	1.52	1.49
1992	1.52	1.51	1.48	1.45	1.38	1.35	1.35	1.41	1.44	1.45	1.43	1.39	1.43
1993	1.43	1.45	1.50	1.49	1.43	1.41	1.41	1.44	1.41	1.36	1.35	1.37	1.42
1994	1.41	1.48											

See footnotes at end of table.

Continued--

Appendix table 15--Feed-price ratios for livestock, poultry, and milk, by month, 1973-94--Continued

Year	Sept.	Oct. 2/	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Egg/feed, U.S. basis: 5/													
1973	8.60	8.20	8.60	8.50	8.80	8.40	7.50	7.00	6.20	5.80	6.20	5.70	7.46
1974	6.70	6.50	6.60	7.20	7.20	7.20	7.60	6.50	6.50	6.30	6.40	6.80	6.79
1975	7.50	7.10	8.10	9.00	8.60	8.20	7.40	7.30	7.50	6.80	6.80	7.60	7.66
1976	7.70	7.80	8.70	9.10	8.50	8.10	7.30	6.80	5.90	5.80	6.70	7.20	7.47
1977	7.60	7.10	7.30	7.40	6.70	7.50	7.40	6.70	6.30	5.60	6.40	7.00	6.92
1978	7.30	7.00	7.50	8.00	7.80	7.70	8.00	7.40	6.90	6.70	6.10	6.10	7.21
1979	6.40	6.10	6.80	7.30	6.60	6.00	6.40	6.00	5.40	5.60	5.70	6.00	6.19
1980	6.20	5.70	6.00	6.60	5.90	5.70	5.60	5.90	5.20	5.20	5.50	5.80	5.77
1981	6.40	6.50	7.20	6.70	6.60	6.80	7.10	6.60	5.60	5.30	5.70	5.40	6.32
1982	6.00	6.30	6.30	6.00	5.70	5.80	6.10	5.80	6.00	5.80	5.70	6.10	5.97
1983	6.00	6.20	6.90	7.70	8.80	8.50	7.40	8.50	6.50	5.80	5.80	5.80	6.99
1984	5.90	5.70	6.50	6.30	5.50	5.60	6.30	5.70	5.50	5.90	5.90	6.50	5.94
1985	7.10	7.30	7.50	7.40	7.20	6.90	7.60	6.40	6.40	5.70	6.90	7.30	6.98
1986	7.30	7.00	8.00	7.80	7.30	7.10	6.60	6.60	5.90	6.00	5.70	5.60	6.74
1987	6.50	6.00	6.40	5.70	5.50	5.30	5.60	5.20	5.00	5.30	4.90	4.90	5.53
1988	5.40	5.30	5.40	5.40	5.90	5.80	7.50	6.20	5.90	6.00	6.10	6.80	5.98
1989	6.80	7.10	7.90	8.30	8.40	7.10	8.00	7.30	6.20	6.40	5.40	6.40	7.11
1990	6.70	7.30	7.30	7.70	7.90	6.90	7.80	6.80	6.10	6.10	6.80	6.70	7.01
1991	6.50	6.20	6.30	7.00	5.70	5.50	5.40	5.50	5.10	5.30	5.20	5.30	5.75
1992	5.90	5.80	6.60	6.50	6.40	6.30	7.00	6.90	6.30	6.60	5.70	6.10	6.34
1993	5.50	5.80	6.10	6.10	5.70	5.80	6.00	5.70	5.40	5.40	5.60	5.80	5.74
1994	5.90	5.70											
Broiler/feed, U.S. basis: 6/													
1973	3.50	2.90	2.50	2.30	2.50	2.80	2.70	2.70	2.70	2.50	2.60	2.30	2.67
1974	2.60	2.50	2.60	2.40	2.70	2.90	2.90	2.80	3.10	3.40	3.70	2.60	2.85
1975	3.60	3.50	3.40	3.00	3.10	3.20	3.10	3.00	3.10	2.80	2.80	2.70	3.11
1976	2.50	2.40	2.30	2.30	2.50	2.70	2.70	2.60	2.60	2.70	3.00	2.90	2.60
1977	3.10	3.00	2.70	2.60	2.80	3.00	3.00	3.30	3.30	3.50	3.70	3.10	3.09
1978	3.10	2.90	2.80	2.90	3.10	3.30	3.10	3.00	3.20	2.90	2.50	2.30	2.93
1979	2.40	2.20	2.60	2.70	2.80	2.60	2.50	2.30	2.60	2.60	3.30	3.00	2.63
1980	2.90	2.80	2.50	2.50	2.60	2.60	2.60	2.30	2.40	2.60	2.60	2.50	2.57
1981	2.40	2.40	2.40	2.30	2.60	2.60	2.60	2.50	2.60	2.70	2.60	2.50	2.52
1982	2.60	2.50	2.50	2.50	2.60	2.70	2.40	2.30	2.40	2.60	2.80	2.80	2.56
1983	2.70	2.50	2.80	2.90	3.10	3.10	3.10	2.70	2.70	2.70	3.00	2.70	2.83
1984	2.80	2.60	2.80	2.70	2.90	2.90	2.80	2.80	3.10	3.20	3.10	3.10	2.90
1985	3.20	3.10	3.50	3.20	3.20	3.10	3.10	3.10	3.40	3.80	4.50	4.60	3.48
1986	3.80	4.40	3.90	3.40	3.60	3.50	3.30	3.20	3.30	3.00	2.90	3.30	3.47
1987	2.90	2.60	2.70	2.50	2.70	2.70	2.80	3.10	3.70	4.10	3.40	3.40	3.05
1988	3.20	2.80	2.70	2.80	2.80	2.80	3.10	3.30	3.70	3.50	3.30	3.00	3.08
1989	3.10	2.70	2.60	2.50	2.70	3.00	3.20	3.00	3.20	3.10	3.30	3.00	2.95
1990	3.10	2.70	2.70	2.70	2.90	2.90	2.90	2.90	3.00	3.00	3.20	3.20	2.93
1991	3.20	3.00	2.80	2.80	2.90	2.90	2.90	2.80	3.10	3.00	3.20	3.30	2.99
1992	3.00	3.30	3.30	3.10	3.10	3.10	3.20	3.20	3.40	3.30	3.50	3.60	3.26
1993	3.60	3.20	3.20	3.10	3.00	3.00	3.20	3.20	3.30	3.40	3.50	3.30	3.25
1994	3.40	3.50											
Turkey/feed, U.S. basis: 7/													
1973	4.90	5.00	5.30	4.80	4.00	3.80	3.80	3.40	3.20	3.10	2.90	2.90	3.93
1974	3.00	3.00	3.30	3.60	3.60	3.70	3.80	3.60	3.80	3.90	4.20	4.20	3.64
1975	4.20	4.30	4.50	4.40	4.00	3.90	4.00	3.90	3.90	3.50	3.30	3.40	3.94
1976	3.40	3.50	3.50	3.70	3.50	3.40	3.60	3.40	3.40	3.50	3.50	3.80	3.52
1977	4.00	4.30	4.50	4.50	4.30	4.20	4.30	4.20	4.30	4.40	4.50	4.80	4.36
1978	4.90	5.00	5.10	5.40	5.00	4.60	4.30	4.30	4.20	3.90	3.50	3.70	4.49
1979	3.70	3.90	4.50	4.30	3.80	3.60	3.50	3.40	3.10	3.10	3.50	3.50	3.66
1980	3.70	4.00	3.90	3.50	3.10	3.10	3.20	3.00	3.00	3.30	3.30	3.20	3.36
1981	3.10	2.80	3.10	2.90	3.00	3.00	3.00	3.00	3.00	3.20	3.40	3.50	3.08
1982	3.80	3.90	3.90	3.00	2.90	2.90	2.90	2.70	2.90	3.00	2.80	2.80	3.13
1983	3.00	3.00	3.10	3.50	3.60	3.20	3.30	3.30	3.30	3.30	3.60	3.80	3.33
1984	3.90	4.40	5.00	5.50	4.70	3.80	3.70	3.70	3.70	3.90	4.20	4.50	4.25
1985	5.00	5.50	5.50	5.50	3.40	3.40	3.50	3.50	3.80	4.30	4.50	4.60	4.38
1986	4.70	4.90	4.80	4.00	3.30	3.40	3.40	3.50	3.40	3.30	3.10	3.00	3.73
1987	2.90	2.80	3.10	3.60	2.90	2.60	2.50	2.70	2.80	3.00	3.00	3.10	2.92
1988	3.40	3.60	3.60	2.90	2.70	2.90	3.10	3.30	3.50	3.50	3.30	3.30	3.26
1989	3.00	3.20	3.40	3.30	3.00	2.80	3.10	3.10	3.20	3.20	3.30	3.40	3.17
1990	3.40	3.60	3.60	3.10	2.90	3.00	3.10	3.20	3.20	3.30	3.40	3.50	3.28
1991	3.50	3.10	3.10	3.20	3.00	3.00	3.10	3.10	3.10	3.20	3.20	3.10	3.14
1992	3.10	3.20	3.30	3.20	2.90	2.90	3.10	3.00	3.00	3.00	3.10	3.20	3.08
1993	3.30	3.40	3.40	3.30	2.90	2.90	3.00	3.00	3.10	3.10	3.20	3.20	3.15
1994	3.30	3.50											

1/ Bushels of corn equal in value to 100 pounds of hog, live weight. 2/ October 1994 data are preliminary. 3/ Based on price of choice beef-steers, 900-1100 pounds. 4/ Pounds of 16-percent mixed dairy feed equal in value to 1 pound whole milk. 5/ Pounds of laying feed equal in value to 1 dozen eggs. 6/ Pounds of broiler grower feed equal in value to 1 pond broiler, live weight. 7/ Pounds of turkey grower feed equal in value to 1 pound of turkey, live weight. NA = Not available.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

Appendix table 16--Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by month, 1973 to date

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
							$/ton						
Distiller's dried grains, Lawrenceburg, Indiana:													
1973	154.10	119.20	117.50	126.25	129.70	123.90	106.25	94.00	90.50	92.75	98.00	120.00	114.35
1974	123.20	123.80	147.50	136.00	127.50	115.50	102.00	99.20	100.25	102.00	107.60	119.25	116.98
1975	125.50	121.75	110.40	97.60	107.75	114.50	107.60	102.50	101.50	110.20	123.00	126.40	112.39
1976	104.40	127.25	126.00	133.00	141.25	145.00	142.60	141.00	143.50	143.10	130.75	110.70	132.38
1977	113.60	112.25	117.10	123.00	124.60	124.00	123.75	123.00	124.00	125.60	124.50	118.60	121.17
1978	143.70	116.00	122.00	128.50	130.00	130.00	128.00	121.50	120.30	122.90	131.40	139.00	127.78
1979	160.00	153.00	147.50	145.00	143.60	134.70	124.00	121.10	122.60	126.00	132.00	144.50	137.83
1980	150.00	165.75	171.25	175.20	175.25	167.50	153.00	145.10	155.25	164.40	164.50	156.00	161.93
1981	150.00	151.25	153.75	148.00	146.25	147.60	139.40	136.50	142.00	147.00	153.00	145.25	146.67
1982	137.60	136.25	137.00	137.00	138.75	136.75	140.20	144.50	147.00	150.20	150.60	155.60	142.62
1983	167.50	175.00	183.20	189.75	190.00	185.00	173.50	165.50	168.00	165.75	156.60	147.75	172.30
1984	139.00	120.10	96.50	93.00	94.25	96.00	94.00	87.40	83.25	85.00	88.75	95.50	97.73
1985	96.50	99.70	105.25	110.80	115.00	113.75	109.50	112.40	111.90	109.75	102.10	NQ	107.88
1986	131.50	129.00	128.60	124.80	113.25	110.10	105.10	100.75	111.10	116.00	118.25	NQ	117.13
1987	118.00	118.25	122.50	128.40	138.75	139.75	136.00	129.00	126.50	131.80	159.00	NQ	131.63
1988	142.00	144.00	147.60	138.00	138.00	138.00	140.00	145.50	144.00	140.00	134.00	NQ	141.01
1989	141.75	140.00	131.00	121.00	122.00	120.25	115.25	117.25	119.60	120.75	119.00	NQ	124.35
1990	122.25	124.20	129.50	133.50	134.80	136.25	138.00	134.00	128.00	123.00	90.70	NQ	126.75
1991	118.00	118.00	122.00	126.60	128.00	127.60	124.10	121.00	117.25	117.20	126.00	NQ	122.34
1992	130.00	110.25	134.00	135.00	135.00	135.00	131.00	123.00	106.00	106.00	106.00	NQ	122.84
1993	120.00	121.25	127.00	130.00	130.00	130.00	127.00	122.00	118.40	116.00	120.00	NQ	123.79
1994	120.00												
Brewers' dried grains, Milwaukee:													
1973	98.50	112.60	117.60	122.25	122.40	103.00	81.25	88.90	81.50	63.40	81.60	119.40	99.36
1974	97.25	111.00	120.25	108.80	98.50	71.00	75.40	92.10	72.40	74.25	86.10	92.40	91.62
1975	86.80	99.00	93.25	89.00	104.40	92.60	95.60	84.90	88.20	96.60	100.90	105.90	94.76
1976	120.50	119.00	120.60	130.10	134.50	127.10	114.40	105.00	126.75	121.10	86.75	82.80	115.72
1977	85.00	88.60	98.10	108.25	101.20	89.50	93.00	88.00	82.40	87.00	75.75	74.20	89.25
1978	92.25	104.60	112.00	113.50	113.20	111.75	100.75	81.20	89.00	107.50	115.00	109.50	104.19
1979	116.00	124.80	115.10	116.70	120.80	109.00	96.25	93.00	105.25	103.75	107.00	115.00	110.22
1980	118.60	133.75	145.25	149.00	149.25	121.75	93.80	110.50	114.10	94.20	85.00	95.75	117.58
1981	99.60	109.25	117.50	99.40	103.25	97.50	85.00	95.75	98.50	89.00	88.00	87.40	97.52
1982	91.25	102.90	102.40	108.50	113.10	97.60	95.60	104.25	104.00	102.00	106.00	108.60	103.02
1983	122.25	127.75	128.10	136.00	141.00	136.25	123.50	106.00	98.40	102.40	88.00	80.25	115.82
1984	83.80	77.30	63.40	78.25	86.40	61.25	46.25	47.00	53.10	70.00	60.50	50.60	64.82
1985	70.60	74.50	71.25	93.00	106.25	71.90	58.10	81.50	78.75	67.10	61.25	61.25	74.62
1986	68.70	83.10	101.25	118.00	100.60	61.50	50.50	68.00	81.90	77.00	71.90	78.10	80.04
1987	85.00	91.90	105.60	113.00	118.75	100.60	85.50	89.40	94.40	114.00	144.00	136.50	106.55
1988	139.40	135.60	144.00	150.00	146.00	141.25	126.25	121.90	114.00	110.00	107.50	105.50	128.45
1989	99.40	103.00	116.25	130.00	128.50	93.00	84.40	81.90	83.50	82.90	78.50	83.25	97.05
1990	93.10	101.00	115.00	116.90	115.00	115.00	82.50	80.50	82.25	75.60	63.50	81.13	93.46
1991	99.00	107.50	113.10	121.00	121.90	122.50	108.50	87.75	90.00	90.00	94.40	99.40	104.59
1992	103.60	110.25	110.50	111.00	111.00	113.00	108.90	99.60	89.50	87.00	NQ	NQ	104.44
1993	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
1994	NQ												
Corn gluten feed, 21% protein, Illinois Points:													
1973	92.25	92.50	94.40	105.75	108.20	85.25	79.00	74.60	75.75	72.00	83.00	120.70	90.28
1974	91.00	100.00	103.75	92.80	90.25	80.50	77.00	88.40	80.00	81.60	83.90	91.50	88.39
1975	88.60	90.25	86.50	87.60	92.75	87.00	83.00	82.50	90.00	98.10	106.00	107.90	91.68
1976	114.00	115.10	108.00	117.50	125.25	122.00	110.60	114.80	117.50	108.80	89.00	80.40	110.25
1977	78.00	78.00	89.60	103.25	101.60	91.50	89.00	91.00	89.60	88.00	88.00	89.60	89.76
1978	96.25	107.60	113.50	115.40	118.60	122.00	121.60	120.50	117.90	122.50	131.00	130.00	118.07
1979	129.00	134.00	132.50	135.00	140.00	138.75	120.60	105.00	113.75	113.75	116.00	123.70	125.17
1980	130.00	126.25	131.25	138.00	140.00	120.00	114.50	121.25	122.40	111.00	101.75	107.25	121.97
1981	108.50	110.00	110.00	113.80	117.00	117.00	112.00	112.00	112.00	112.00	114.25	110.40	112.41
1982	115.00	109.50	111.20	120.00	125.00	117.50	112.80	110.00	111.75	114.00	120.00	127.00	116.15
1983	135.00	140.60	136.00	136.25	135.00	118.75	111.25	113.75	106.00	83.75	79.70	78.75	114.57
1984	69.40	76.00	80.10	80.60	79.80	73.90	61.60	59.70	63.25	68.50	74.10	78.00	72.08
1985	81.25	86.60	89.00	91.80	92.50	89.60	97.10	96.00	90.00	87.50	84.30	88.10	89.48
1986	97.80	105.50	109.75	99.20	97.90	98.10	99.60	98.40	96.90	93.80	91.25	92.40	98.38
1987	96.50	98.50	106.00	110.00	118.10	120.60	119.00	118.10	116.90	129.50	135.00	120.00	115.68
1988	119.40	119.40	123.10	125.00	127.10	120.90	118.90	120.40	112.50	108.00	107.00	106.10	117.32
1989	108.00	110.00	109.75	110.40	110.30	108.75	108.75	102.10	95.00	81.25	83.40	82.25	100.83
1990	83.50	92.60	94.25	98.40	114.20	103.75	114.25	101.70	95.98	94.25	92.00	90.50	97.95
1991	95.60	104.60	106.10	107.00	107.40	108.50	101.50	95.50	95.40	94.40	99.40	102.50	101.49
1992	107.30	108.50	106.10	115.20	108.10	107.00	89.00	80.50	81.60	82.70	81.90	83.50	95.95
1993	82.50	80.90	85.30	90.50	92.40	87.60	88.60	89.90	91.00	91.25	92.00	91.50	88.62
1994	90.40												

See footnotes at end of table.

Continued--

Appendix table 16--Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by month, 1973 to date--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
							$/ton						
Corn gluten meal, 60% protein, Illinois Points:													
1973	221.25	210.70	200.75	234.25	246.80	267.75	267.50	254.00	204.90	180.00	214.50	263.40	230.48
1974	217.75	221.60	217.50	204.00	198.50	181.25	191.50	209.60	211.00	212.00	215.20	222.00	208.49
1975	229.20	237.75	238.25	241.00	248.00	254.00	250.80	208.10	185.50	209.30	257.40	270.20	235.79
1976	294.00	298.00	267.80	246.00	258.00	288.75	297.80	287.50	296.00	294.40	275.90	208.20	276.03
1977	182.00	182.60	215.30	243.75	250.00	250.00	248.75	245.50	220.00	213.75	201.75	216.00	222.45
1978	232.75	249.20	243.75	243.75	252.60	271.90	280.00	270.00	234.00	241.75	304.10	325.00	262.40
1979	316.90	275.00	260.60	263.10	269.00	246.25	222.50	206.00	211.90	220.00	233.00	268.10	249.36
1980	302.00	288.75	296.25	302.00	307.50	292.50	239.00	235.00	256.25	261.00	237.50	249.40	272.26
1981	260.00	245.25	244.40	260.50	275.00	271.25	243.00	225.00	225.00	228.00	237.50	229.50	245.37
1982	221.25	207.50	215.00	246.25	265.00	267.50	251.00	238.75	235.00	213.00	242.50	300.00	241.90
1983	326.25	308.75	283.00	275.00	284.00	258.75	245.00	256.25	271.00	266.25	236.75	218.75	269.15
1984	213.80	211.30	215.60	240.00	232.00	215.60	203.75	191.00	172.50	169.20	174.50	198.10	203.11
1985	211.25	208.70	208.75	219.50	219.40	208.10	198.75	192.90	210.60	216.90	211.50	206.25	209.38
1986	208.00	222.50	230.60	241.50	232.20	206.25	208.50	213.10	226.40	267.80	268.75	240.60	230.52
1987	259.50	278.75	305.60	313.50	309.40	283.75	287.00	275.60	278.75	355.50	380.00	310.00	303.11
1988	309.40	313.75	293.00	277.50	281.00	288.10	280.60	275.60	272.00	270.63	271.25	257.00	282.49
1989	267.00	313.00	298.75	280.00	81.00	260.90	238.75	238.10	240.50	215.60	222.00	223.75	239.95
1990	229.40	232.00	231.90	240.60	247.00	239.40	247.50	236.70	226.90	230.00	236.20	254.60	237.68
1991	269.40	292.50	296.25	287.50	267.50	275.60	272.00	247.50	246.25	248.50	243.75	242.75	265.79
1992	266.00	269.40	266.90	287.00	283.10	294.40	295.50	284.40	276.90	276.50	300.60	314.50	284.60
1993	305.60	296.20	305.75	316.25	309.40	296.25	288.50	278.10	263.50	263.75	263.75	252.30	286.61
1994	235.60												
Meat and bone meal, Kansas City: 1/													
1973	201.90	174.00	220.00	328.75	306.00	221.25	160.00	139.00	143.75	138.10	175.00	196.25	200.33
1974	135.00	183.00	153.10	155.40	152.50	137.50	137.50	151.00	149.40	156.90	162.00	168.10	153.45
1975	154.00	150.50	141.90	150.50	158.10	158.10	159.00	163.10	205.00	253.50	232.50	184.00	175.85
1976	203.75	183.75	210.50	240.00	261.25	237.50	259.00	288.75	270.00	222.00	168.75	169.50	226.23
1977	193.75	183.75	210.00	186.40	189.00	186.25	241.90	210.60	204.50	210.00	204.40	202.50	201.92
1978	218.75	233.50	228.60	230.00	229.50	266.90	264.40	253.10	239.50	265.00	254.50	219.40	241.93
1979	238.10	236.50	233.75	231.90	229.50	248.20	253.75	208.50	183.75	194.40	255.50	248.60	230.20
1980	275.50	288.60	300.60	264.50	258.75	237.50	231.50	245.00	246.25	235.00	247.50	240.10	255.90
1981	234.50	230.25	221.90	211.00	206.25	209.40	211.00	220.60	208.75	208.00	204.40	192.00	213.17
1982	186.25	183.75	209.30	210.60	225.00	232.50	231.00	246.90	213.10	199.50	198.75	244.50	215.10
1983	237.50	216.25	238.50	234.40	236.00	209.40	227.50	218.75	214.00	196.90	176.50	169.40	214.59
1984	162.80	178.00	177.50	175.60	175.70	173.10	146.25	126.40	108.10	120.00	130.40	140.60	151.20
1985	151.25	164.75	170.60	173.50	168.75	152.80	160.00	150.00	170.90	175.00	173.20	178.40	165.76
1986	187.10	183.10	189.40	198.50	175.25	173.10	178.60	191.90	216.90	222.00	222.40	209.75	195.67
1987	212.50	221.00	233.20	242.50	238.75	228.75	237.00	244.00	256.00	356.90	270.00	264.00	250.38
1988	278.75	280.60	271.10	258.80	275.40	261.10	266.00	254.40	229.30	258.10	266.60	217.80	259.83
1989	231.40	225.90	220.10	220.00	194.60	194.40	199.40	199.10	199.20	203.50	205.50	194.40	207.29
1990	200.50	209.20	211.25	209.40	198.50	191.25	205.60	205.00	194.40	195.75	205.10	224.40	204.20
1991	232.50	227.00	219.40	208.50	208.90	205.90	215.70	202.25	206.50	206.20	197.10	204.40	211.20
1992	217.20	216.60	208.60	214.50	225.00	214.25	215.80	221.90	208.90	208.50	268.40	231.50	220.93
1993	218.10	205.80	219.25	228.40	215.30	209.70	204.70	198.10	207.50	205.10	187.75	182.00	206.81
1994	188.75												
Fish meal, 65% protein; domestic, East Coast:													
1973	462.50	420.00	411.25	587.50	538.00	446.25	405.00	337.00	276.25	258.75	252.00	312.50	392.25
1974	271.25	299.00	298.75	275.00	256.25	228.75	220.00	240.00	225.00	219.00	237.50	251.25	251.81
1975	257.00	268.75	270.00	267.00	271.90	272.00	279.00	270.00	282.50	352.50	383.75	332.50	292.24
1976	366.25	363.10	368.50	402.50	405.00	423.10	437.50	481.25	489.50	421.25	313.30	319.40	399.22
1977	335.00	342.50	353.00	363.75	365.00	362.50	377.50	395.00	373.00	356.25	316.90	333.50	356.16
1978	353.75	370.00	388.75	391.25	388.00	383.75	395.00	406.25	390.00	375.00	382.00	355.00	381.56
1979	353.75	366.00	370.00	381.25	391.50	403.75	398.75	375.00	355.00	342.50	365.00	380.00	373.54
1980	427.00	460.00	502.50	490.00	468.75	421.25	405.00	418.75	413.75	404.00	391.25	365.00	430.00
1981	378.00	383.75	370.00	354.00	370.00	377.50	377.00	360.00	360.00	335.00	306.25	315.50	357.25
1982	311.25	324.25	346.00	370.00	375.00	370.00	363.00	362.50	357.50	336.50	325.00	397.00	353.17
1983	415.00	425.00	423.50	407.50	392.60	373.75	383.75	381.25	360.00	354.00	329.00	298.75	378.68
1984	291.90	295.00	309.50	308.25	308.90	290.90	280.60	280.00	231.75	208.90	205.80	207.25	268.23
1985	240.50	284.50	259.00	297.50	291.00	287.50	320.00	290.00	286.90	272.50	278.00	303.10	284.21
1986	320.40	318.00	317.50	315.80	313.30	315.75	NQ	NQ	335.80	359.50	353.75	363.10	331.29
1987	364.30	372.50	401.25	449.50	448.75	420.80	NQ	426.25	456.25	553.50	571.00	527.50	453.78
1988	530.00	523.10	505.00	471.90	463.50	436.60	427.50	413.10	395.00	383.75	396.90	397.00	445.28
1989	382.50	381.00	384.40	386.25	388.50	389.40	387.50	320.60	341.00	313.75	309.50	316.25	358.39
1990	333.30	364.00	363.13	316.90	NQ	356.25	351.90	329.50	325.00	316.25	324.50	358.75	339.95
1991	385.00	403.50	406.90	321.50	394.40	390.60	NQ	348.00	364.20	365.80	345.00	300.70	365.96
1992	404.00	412.50	412.50	410.00	NQ	NQ	NQ	NQ	333.75	334.00	375.00	365.50	380.91
1993	344.40	326.90	342.50	361.25	350.00	350.00	344.00	326.25	330.00	327.50	318.30	321.50	336.88
1994	321.90												

See footnotes at end of table.

Continued--

Appendix table 16--Byproduct feeds: Average wholesale price a ton, bulk, specified markets, by month, 1973 to date--Continued

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
							$/ton						
Hominy feed, Illinois Points:													
1973	76.00	81.50	90.75	95.00	92.20	90.90	88.40	87.20	79.90	79.10	101.00	124.75	90.56
1974	99.10	116.00	115.00	103.00	93.00	74.75	74.75	87.50	78.20	79.75	80.00	91.60	91.05
1975	93.00	82.90	81.25	81.80	83.00	81.00	77.30	75.40	85.90	94.20	99.90	90.10	85.48
1976	92.40	85.40	76.60	83.90	83.90	82.25	73.90	79.75	78.50	76.70	62.90	50.70	77.24
1977	57.00	61.50	67.40	75.00	67.70	70.50	72.25	72.60	78.10	81.25	67.50	63.70	69.54
1978	65.10	68.50	78.10	69.50	69.20	76.75	71.90	73.00	83.60	91.00	94.20	93.75	77.88
1979	94.70	85.70	82.50	91.20	84.80	75.00	77.50	79.00	82.00	81.25	90.00	106.00	85.80
1980	116.20	105.75	118.50	121.80	118.25	103.50	99.80	111.25	108.25	95.90	99.75	94.00	107.75
1981	88.10	88.25	83.75	79.60	81.75	69.00	65.20	79.50	85.00	85.80	81.75	70.90	79.88
1982	73.90	73.00	82.00	79.60	77.90	80.75	88.60	107.00	109.50	109.00	112.75	116.80	92.57
1983	121.50	118.75	122.20	117.50	114.40	105.50	108.25	109.75	102.80	102.75	96.90	97.50	109.82
1984	101.80	88.70	76.90	78.75	81.00	73.90	70.25	78.70	82.75	78.30	83.10	80.25	81.20
1985	76.75	76.50	77.25	85.80	85.00	84.90	84.50	86.40	85.25	82.50	72.40	74.25	80.96
1986	75.00	61.60	65.75	64.40	60.50	58.75	51.50	52.75	67.00	69.40	73.60	70.75	64.25
1987	64.70	65.60	71.00	80.20	80.40	77.75	79.40	80.10	82.10	93.10	103.60	101.00	81.58
1988	101.25	98.00	89.90	94.40	97.60	90.60	93.90	96.75	89.00	83.75	81.90	82.90	91.66
1989	89.00	91.00	85.75	88.70	85.80	82.90	89.60	94.10	94.40	92.00	87.70	87.00	89.00
1990	90.00	85.70	85.00	84.50	85.50	83.00	82.50	82.10	68.10	73.90	77.00	79.13	81.37
1991	80.00	77.20	83.60	86.20	88.00	93.60	91.70	92.75	84.50	83.90	83.25	77.90	85.22
1992	76.40	72.50	67.10	66.90	65.60	60.00	60.80	66.90	69.40	65.70	73.25	69.50	67.84
1993	69.00	68.50	81.10	89.90	98.75	92.60	85.50	84.00	83.30	79.75	68.60	69.10	80.84
1994	64.90												
Dehydrated alfalfa meal, 17% protein (reground), Kansas City:													
1973	77.60	101.50	103.60	104.70	104.80	102.60	94.20	82.00	75.40	68.20	76.70	93.75	90.42
1974	89.75	92.00	89.25	87.00	84.25	77.10	74.40	75.90	77.00	74.70	76.60	81.50	81.62
1975	82.60	87.30	92.40	98.70	110.20	108.20	111.40	108.40	91.40	94.20	99.90	103.00	98.98
1976	115.20	115.50	111.10	112.10	112.80	111.30	104.25	95.30	91.40	85.00	74.90	66.40	99.60
1977	64.30	67.90	70.90	74.40	73.20	72.80	80.90	82.60	77.50	76.20	76.90	77.20	74.57
1978	81.20	92.90	98.90	99.20	100.60	103.50	105.10	104.60	102.30	99.50	102.80	98.80	99.12
1979	100.80	111.00	112.10	112.60	112.60	112.80	110.60	104.90	100.10	96.80	104.00	118.10	108.03
1980	120.10	122.70	132.00	136.20	135.50	131.90	125.60	126.10	118.00	112.40	112.60	108.60	123.48
1981	106.00	109.40	110.20	110.10	109.40	105.40	99.90	99.80	105.80	105.90	103.80	102.50	105.68
1982	105.40	109.60	115.50	118.80	119.60	121.10	121.10	131.10	136.10	115.70	114.80	120.10	119.08
1983	123.60	128.90	131.90	134.10	139.70	143.60	141.10	142.40	143.30	117.40	110.10	109.40	130.46
1984	111.80	114.50	117.20	115.40	110.50	104.80	95.50	94.30	91.70	87.25	86.90	85.80	101.30
1985	86.10	88.80	92.60	94.90	97.70	97.60	99.10	104.10	99.80	92.50	79.70	81.40	92.86
1986	84.20	86.60	90.10	94.50	96.40	95.60	94.60	96.60	96.40	90.00	90.60	91.60	92.27
1987	93.80	100.10	101.60	103.50	105.25	106.75	106.20	105.00	103.00	113.00	126.25	127.60	107.67
1988	130.50	133.50	136.40	138.80	139.00	138.00	141.00	145.50	149.20	134.00	129.25	125.00	136.68
1989	124.25	125.00	129.50	133.75	136.00	136.25	136.00	133.75	126.80	118.50	113.20	111.00	127.00
1990	110.00	110.00	111.25	112.00	112.00	112.00	111.25	112.20	115.00	109.00	105.40	103.00	110.26
1991	103.00	103.00	103.00	104.00	104.00	104.00	102.60	101.75	98.75	98.00	97.75	97.00	101.40
1992	96.20	99.50	102.75	106.60	111.00	112.00	115.40	124.10	125.00	111.00	109.00	113.10	110.47
1993	118.75	127.75	133.90	137.50	136.90	134.75	130.00	125.75	121.50	112.10	109.90	113.00	125.15
1994	115.40												
Molasses beet pulp, Los Angeles:													
1973	90.60	101.50	108.00	108.00	110.50	112.60	111.30	101.00	92.75	90.40	97.75	111.40	102.98
1974	128.25	130.00	131.00	126.60	117.50	108.75	96.00	85.40	87.00	84.75	90.90	104.90	107.59
1975	117.60	116.00	111.25	109.00	108.00	108.00	106.60	101.00	101.00	101.40	103.25	104.00	107.26
1976	103.50	101.75	101.75	101.40	99.70	101.75	105.00	100.90	99.00	96.70	94.90	91.60	99.83
1977	85.75	83.25	84.60	88.75	93.40	96.80	102.50	101.10	101.80	100.80	103.40	101.50	95.30
1978	102.75	109.10	113.75	115.00	116.80	118.00	118.00	113.00	110.00	111.75	118.50	120.50	113.93
1979	122.60	130.60	139.00	141.25	141.25	129.40	123.75	118.25	110.90	110.90	115.00	121.50	125.37
1980	127.50	127.40	134.60	142.00	143.90	152.50	NQ	137.60	130.75	123.00	122.60	119.25	132.83
1981	116.00	108.75	108.75	112.25	116.70	121.40	123.50	111.50	113.50	114.70	115.10	116.50	114.89
1982	114.60	119.00	119.00	122.90	121.40	120.00	123.00	124.50	125.00	123.00	119.10	120.20	120.98
1983	130.00	130.60	130.00	NQ	NQ	NQ	NQ	123.00	121.80	121.00	124.80	124.00	125.65
1984	118.00	120.30	123.50	124.60	129.50	130.00	125.10	120.10	112.60	105.50	105.90	106.00	118.43
1985	104.00	107.00	111.50	117.40	119.00	121.00	118.50	111.40	105.25	99.50	96.50	96.00	108.92
1986	91.40	90.00	91.90	95.80	103.00	105.00	101.00	94.60	88.75	88.50	88.50	89.50	94.00
1987	89.50	90.25	92.25	95.50	99.50	NQ	NQ	NQ	100.00	103.00	115.00	122.50	100.83
1988	127.50	129.25	129.00	129.00	127.00	128.50	133.00	124.50	125.40	70.00	77.00	68.00	114.01
1989	65.00	65.50	118.10	121.50	NQ	NQ	118.00	118.00	118.00	117.25	117.20	117.00	107.56
1990	119.50	121.00	122.00	122.00	125.00	125.00	120.00	112.90	112.00	112.50	80.00	NQ	115.63
1991	80.00	80.00	104.25	107.50	113.10	115.00	121.40	123.00	110.00	112.60	114.00	114.00	107.90
1992	113.20	102.80	98.90	108.10	114.50	114.75	112.00	109.00	108.80	108.40	106.50	103.50	108.37
1993	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ	NQ
1994	NQ												

NQ = No quotes.
1/ Reported as Central U.S. starting December 1991.

Source: Grain and Feed Market News, AMS, USDA.

Appendix table 17--Corn, sorghum, barley, and oats exports, 1979/80 to date 1/

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Bushels			
1979/80:				1979/80:				
Sept.	185,070,433	186,246,851	24,223,910	June	2,212,317	2,282,851	120,868	247,616
Oct.	214,345,983	215,526,560	21,583,642	July	2,446,725	2,527,595	42,528	140,915
Nov.	221,857,150	223,007,799	26,229,212	Aug.	2,719,552	2,811,124	105,109	254,874
1st Qtr.	621,273,566	624,781,210	72,036,764	1st Qtr.	7,378,594	7,621,570	268,505	643,405
Dec.	223,411,029	224,356,785	26,386,501	Sept.	2,221,823	2,276,736	144,474	211,556
Jan.	189,912,018	190,929,805	37,438,737	Oct.	9,284,368	9,514,648	95,188	164,665
Feb.	184,412,948	185,516,630	39,082,513	Nov.	8,143,400	8,336,890	870,027	984,369
2nd Qtr.	597,735,995	600,803,220	102,907,751	2nd Qtr.	19,649,591	20,128,274	1,109,689	1,360,590
Mar.	204,333,868	205,545,642	32,000,475	Dec.	4,218,627	4,500,253	645,337	726,279
Apr.	213,500,454	214,521,960	35,394,225	Jan.	3,042,486	3,173,696	98,074	275,844
May	169,938,362	171,104,012	24,939,765	Feb.	3,641,315	3,911,450	18,760	97,572
3rd Qtr.	587,772,684	591,171,614	92,334,465	3rd Qtr.	10,902,428	11,585,399	762,171	1,099,695
June	191,853,582	193,158,972	24,957,177	Mar.	3,843,733	4,052,579	60,276	89,764
July	196,938,173	198,356,492	22,312,730	Apr.	6,525,141	6,692,569	229,439	418,534
Aug.	205,942,297	207,054,727	15,122,775	May	4,520,778	4,747,733	327,568	430,851
4th Qtr.	594,734,052	598,570,191	62,392,682	4th Qtr.	14,889,652	15,492,881	617,283	939,149
Total	2,401,516,297	2,415,326,235	329,671,662	Total	52,820,265	54,828,124	2,757,648	4,042,839
1980/81:				1980/81:				
Sept.	202,462,112	203,528,019	19,533,279	June	5,022,971	5,097,866	580,924	1,006,889
Oct.	240,698,485	242,279,498	22,543,461	July	3,628,339	3,702,871	327,415	785,586
Nov.	244,706,069	245,871,275	25,367,196	Aug.	9,211,534	9,349,242	638,725	1,101,431
1st Qtr.	687,866,666	691,678,792	67,443,936	1st Qtr.	17,862,844	18,149,979	1,547,064	2,893,906
Dec.	238,328,292	239,663,630	18,308,338	Sept.	6,658,108	6,740,218	793,059	953,125
Jan.	207,962,746	209,110,242	28,807,953	Oct.	5,504,702	5,554,355	1,306,243	1,597,563
Feb.	199,682,732	200,654,523	28,934,912	Nov.	6,666,060	6,808,903	46,960	363,072
2nd Qtr.	645,973,770	649,428,395	76,051,203	2nd Qtr.	18,828,870	19,103,476	2,146,262	2,913,760
Mar.	221,866,761	223,109,865	26,318,245	Dec.	8,916,215	9,085,383	785,897	861,436
Apr.	184,884,549	186,633,809	19,487,235	Jan.	6,315,403	6,388,116	189,156	573,991
May	207,201,786	209,094,680	22,218,323	Feb.	11,466,729	11,500,117	1,087,421	1,400,038
3rd Qtr.	613,953,096	618,838,354	68,023,803	3rd Qtr.	26,698,347	26,973,616	2,062,474	2,835,465
June	157,486,785	159,443,572	19,998,909	Mar.	4,666,953	4,776,513	230,384	633,818
July	146,636,959	148,074,369	29,469,237	Apr.	3,516,330	3,542,993	1,560,078	2,260,296
Aug.	139,188,454	140,514,903	32,171,898	May	4,087,044	4,173,387	1,293,251	1,730,912
4th Qtr.	443,312,198	448,032,844	81,640,044	4th Qtr.	12,270,327	12,492,893	3,083,713	4,625,026
Total	2,391,105,730	2,407,978,385	293,158,986	Total	75,660,388	76,719,964	8,839,513	13,268,157
1981/82:				1981/82:				
Sept.	149,655,085	150,744,952	30,963,092	June	1,457,555	1,508,625	372,009	549,202
Oct.	194,694,429	195,728,034	28,388,473	July	6,528,945	6,661,102	366,463	1,092,743
Nov.	174,729,965	176,251,502	18,657,408	Aug.	12,243,107	12,365,441	648,960	782,716
1st Qtr.	519,079,479	522,724,488	78,008,973	1st Qtr.	20,229,607	20,535,168	1,387,432	2,424,661
Dec.	172,337,796	173,551,973	30,772,465	Sept.	11,902,257	12,026,473	436,435	793,962
Jan.	150,895,856	151,627,601	29,552,315	Oct.	16,462,060	16,507,711	202,460	505,977
Feb.	146,989,364	147,749,277	19,453,452	Nov.	8,631,927	8,722,744	59,430	402,684
2nd Qtr.	470,223,016	472,928,851	79,778,232	2nd Qtr.	36,996,244	37,256,928	698,325	1,702,623
Mar.	189,001,536	190,066,366	25,286,333	Dec.	7,636,656	7,746,899	72,350	266,238
Apr.	194,887,043	195,755,373	13,509,047	Jan.	8,332,073	8,455,568	114,472	443,737
May	211,950,747	213,198,644	8,259,377	Feb.	8,088,777	8,207,953	122,192	265,405
3rd Qtr.	595,839,326	599,020,383	47,054,757	3rd Qtr.	24,057,506	24,410,420	309,014	975,380
June	179,668,292	180,443,235	11,386,253	Mar.	5,887,140	6,474,477	99,231	450,891
July	119,477,568	120,516,417	20,242,006	Apr.	3,808,701	3,863,179	38,448	553,340
Aug.	112,474,351	113,953,288	23,142,497	May	7,403,111	7,517,119	154,417	446,421
4th Qtr.	411,620,211	414,912,940	54,770,756	4th Qtr.	17,098,952	17,854,775	292,096	1,450,652
Total	1,996,762,032	2,009,586,662	259,612,718	Total	98,382,309	100,057,291	2,686,867	6,553,316

See footnotes at end of table.

Continued--

Appendix table 17--Corn, sorghum, barley, and oats exports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Bushels			
1982/83:				1982/83:				
Sept.	107,215,457	108,059,024	20,428,581	June	5,928,163	6,296,843	52,361	603,692
Oct.	166,335,228	167,217,946	18,383,056	July	4,165,507	4,862,814	70,751	240,205
Nov.	169,586,560	170,887,184	19,234,195	Aug.	8,196,824	8,579,926	48,700	197,183
1st Qtr.	443,137,245	446,164,154	58,045,832	1st Qtr.	18,290,494	19,739,583	171,812	1,041,080
Dec.	173,558,165	174,573,008	29,354,316	Sept.	5,561,112	5,678,174	197,917	289,602
Jan.	174,707,042	175,440,799	25,050,652	Oct.	1,440,901	1,516,155	71,782	581,391
Feb.	161,304,672	162,010,945	17,975,892	Nov.	2,494,002	2,987,818	158,162	197,106
2nd Qtr.	509,569,879	512,024,752	72,380,860	2nd Qtr.	9,496,015	10,182,147	427,861	1,068,099
Mar.	169,409,637	170,420,490	19,694,606	Dec.	1,833,788	1,940,049	29,127	210,451
Apr.	157,314,623	158,573,125	5,348,135	Jan.	7,454,630	7,580,831	41,047	75,440
May	148,587,837	149,958,142	8,726,291	Feb.	1,410,838	1,492,942	32,518	123,897
3rd Qtr.	475,312,097	478,951,757	33,769,032	3rd Qtr.	10,699,256	11,013,822	102,692	409,788
June	150,589,182	151,822,069	9,889,322	Mar.	3,523,829	3,669,317	26,152	80,122
July	123,534,997	124,569,819	16,494,246	Apr.	29,375	223,988	16,040	207,447
Aug.	119,201,764	120,193,101	19,474,765	May	2,130,966	2,395,182	5,867	206,939
4th Qtr.	393,325,943	396,584,989	45,858,333	4th Qtr.	5,684,170	6,288,487	48,059	494,508
Total	1,821,345,164	1,833,725,652	210,054,057	Total	44,169,935	47,224,039	750,424	3,013,475
1983/84:				1983/84:				
Sept.	142,605,075	144,282,518	24,843,392	June	1,749,278	1,962,746	20,066	170,314
Oct.	154,746,149	155,588,111	22,517,772	July	1,219,801	1,332,753	85,615	276,124
Nov.	196,023,261	197,175,227	20,090,581	Aug.	5,858,487	5,950,159	16,399	190,354
1st Qtr.	493,374,485	497,045,856	67,451,745	1st Qtr.	8,827,566	9,245,658	122,080	636,792
Dec.	175,217,363	176,176,687	19,536,615	Sept.	14,055,167	14,152,120	66,102	120,532
Jan.	172,472,646	173,394,560	27,006,928	Oct.	8,017,640	8,100,296	348,182	489,411
Feb.	158,202,220	158,971,946	25,013,805	Nov.	9,025,053	9,128,165	84,892	128,597
2nd Qtr.	505,892,229	508,543,193	71,557,348	2nd Qtr.	31,097,860	31,380,581	499,176	738,540
Mar.	176,208,558	177,553,953	25,761,817	Dec.	15,402,481	15,638,039	42,383	128,719
Apr.	174,344,582	175,342,494	14,599,452	Jan.	7,544,651	7,820,115	27,417	88,611
May	162,845,594	164,383,668	14,890,486	Feb.	5,797,474	6,047,572	15,377	47,266
3rd Qtr.	513,398,734	517,280,115	55,251,755	3rd Qtr.	28,744,606	29,505,726	85,177	264,596
June	110,199,008	112,251,470	10,354,830	Mar.	10,841,262	11,217,537	39,239	198,298
July	128,242,982	130,068,232	21,979,636	Apr.	5,570,656	5,968,499	171,313	220,808
Aug.	135,289,472	136,339,843	17,884,104	May	3,735,785	4,106,217	24,589	113,676
4th Qtr.	373,731,462	378,659,545	50,218,570	4th Qtr.	20,147,703	21,292,253	235,141	532,782
Total	1,886,396,910	1,901,528,709	244,479,418	Total	88,817,735	91,424,218	941,574	2,172,710
1984/85:				1984/85:				
Sept.	107,064,816	108,016,147	26,778,001	June	4,668,354	4,884,210	16,340	204,719
Oct.	154,055,992	155,233,827	36,290,021	July	1,506,275	2,146,787	51,644	162,650
Nov.	242,124,317	242,966,896	22,711,771	Aug.	4,965,763	5,155,469	28,335	37,065
1st Qtr.	503,245,125	506,216,870	85,779,793	1st Qtr.	11,140,392	12,186,466	96,319	404,434
Dec.	206,686,724	207,683,410	25,549,874	Sept.	17,185,453	17,474,876	58,861	188,704
Jan.	208,081,216	208,846,539	29,096,442	Oct.	8,750,660	8,959,255	78,898	132,116
Feb.	165,648,304	167,345,348	32,640,358	Nov.	9,226,887	9,937,205	25,988	67,587
2nd Qtr.	580,416,244	583,875,297	87,286,614	2nd Qtr.	35,163,000	36,371,336	163,747	388,407
Mar.	170,693,089	171,901,549	26,133,824	Dec.	10,739,791	11,773,706	45,452	66,239
Apr.	167,741,483	169,045,309	19,774,404	Jan.	6,023,494	7,154,739	27,349	56,389
May	136,292,380	137,951,801	17,817,664	Feb.	4,249,537	4,712,199	44,293	107,702
3rd Qtr.	474,726,952	478,898,659	63,725,892	3rd Qtr.	21,012,822	23,640,644	117,094	230,330
June	105,494,909	107,810,557	25,247,583	Mar.	1,173,727	1,258,040	68,000	75,236
July	95,527,431	96,758,258	18,747,724	Apr.	227,362	367,280	35,822	120,640
Aug.	90,839,919	91,826,779	16,117,507	May	2,937,606	3,013,712	13,925	48,363
4th Qtr.	291,862,259	296,395,594	60,112,814	4th Qtr.	4,338,695	4,639,032	117,747	244,239
Total	1,850,250,580	1,865,386,420	296,905,113	Total	71,654,909	76,837,478	494,907	1,267,410

See footnotes at end of table.

Continued--

Appendix table 17--Corn, sorghum, barley, and oats exports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Bushels			
1985/86:				1985/86:				
Sept.	79,897,274	80,730,953	29,172,725	June	1,487,412	1,649,817	44,678	87,396
Oct.	124,900,086	125,817,956	23,654,139	July	3,731,241	3,860,606	23,529	69,692
Nov.	210,005,197	211,178,800	17,378,277	Aug.	5,179,203	5,303,587	33,906	163,983
1st Qtr.	414,802,557	417,727,709	70,205,141	1st Qtr.	10,397,856	10,814,010	102,113	321,071
Dec.	175,971,674	178,512,062	11,858,105	Sept.	831,326	937,470	52,866	89,470
Jan.	164,709,634	166,061,297	17,264,657	Oct.	2,652,026	2,799,218	120,219	153,203
Feb.	119,524,523	120,682,252	13,994,213	Nov.	3,768,477	3,869,960	111,195	350,174
2nd Qtr.	460,205,831	465,255,611	43,116,975	2nd Qtr.	7,251,829	7,606,648	284,280	592,847
Mar.	97,479,313	98,402,168	6,723,066	Dec.	112,702	237,932	23,556	37,750
Apr.	57,426,414	58,213,068	8,597,402	Jan.	1,119,603	1,546,100	8,934	69,750
May	46,520,450	47,775,127	11,610,994	Feb.	49,160	116,456	43,584	96,515
3rd Qtr.	201,426,177	204,390,363	26,931,462	3rd Qtr.	1,281,465	1,900,488	76,074	204,015
June	55,802,755	56,818,892	10,467,071	Mar.	1,148	192,476	250,397	288,260
July	44,609,875	45,480,958	17,830,311	Apr.	720,309	816,587	49,085	93,425
Aug.	50,484,684	51,552,942	9,436,885	May	57,584	472,599	473,733	693,272
4th Qtr.	150,897,314	153,852,792	37,734,267	4th Qtr.	779,041	1,481,662	773,215	1,074,957
Total	1,227,331,879	1,241,226,475	177,987,845	Total	19,710,191	21,802,808	1,235,682	2,192,890
1986/87:				1986/87:				
Sept.	80,082,655	81,263,962	14,227,263	June	2,000	276,815	79,108	128,492
Oct.	124,025,138	124,843,757	18,547,828	July	1,164,620	1,597,139	81,504	217,421
Nov.	114,104,314	114,952,811	14,680,456	Aug.	12,319,164	12,514,711	73,364	335,437
1st Qtr.	318,212,107	321,060,530	47,455,547	1st Qtr.	13,485,784	14,388,665	233,976	681,350
Dec.	109,759,488	110,685,062	19,954,747	Sept.	12,772,707	12,912,177	121,288	327,625
Jan.	104,283,400	105,274,114	15,484,239	Oct.	16,480,986	16,559,353	167,403	411,976
Feb.	98,787,906	99,445,787	20,749,712	Nov.	14,292,746	14,363,851	32,293	167,870
2nd Qtr.	312,830,794	315,404,963	56,188,698	2nd Qtr.	43,546,439	43,835,381	320,984	907,471
Mar.	143,717,211	145,375,500	24,415,530	Dec.	14,532,134	14,661,828	17,314	315,049
Apr.	183,288,269	184,280,573	12,956,519	Jan.	1,205,709	1,262,335	30,960	75,145
May	169,091,351	170,576,405	13,788,332	Feb.	16,084,544	16,522,282	30,776	178,452
3rd Qtr.	496,096,831	500,232,478	51,160,381	3rd Qtr.	31,822,387	32,446,445	79,050	568,646
June	120,026,244	120,818,241	12,940,287	Mar.	17,639,725	18,150,611	115,234	277,846
July	133,984,531	134,900,706	22,883,734	Apr.	16,599,968	17,153,570	105,251	191,418
Aug.	111,320,100	112,008,863	7,698,710	May	10,522,937	10,726,481	67,436	168,607
4th Qtr.	365,330,875	367,727,810	43,522,731	4th Qtr.	44,762,630	46,030,662	287,921	637,871
Total	1,492,470,607	1,504,425,781	198,327,357	Total	133,617,240	136,701,153	921,931	2,795,338
1987/88:				1987/88:				
Sept.	135,401,494	136,128,505	17,831,044	June	517,681	742,738	104,217	187,886
Oct.	137,692,620	138,784,114	16,734,001	July	7,421,463	7,675,579	50,113	92,430
Nov.	122,467,307	123,085,243	10,968,017	Aug.	8,893,825	9,257,652	18,135	153,171
1st Qtr.	395,561,421	397,997,861	45,533,062	1st Qtr.	16,832,969	17,675,969	172,465	433,487
Dec.	148,173,110	149,269,833	21,239,967	Sept.	9,658,418	10,363,963	36,051	74,210
Jan.	133,336,988	134,196,121	19,399,501	Oct.	16,149,719	17,238,723	62,220	144,789
Feb.	123,237,769	124,218,907	22,498,453	Nov.	16,700,948	18,605,946	38,617	99,130
2nd Qtr.	404,747,867	407,684,861	63,137,921	2nd Qtr.	42,509,085	46,208,631	136,888	318,129
Mar.	164,083,150	165,253,019	24,662,618	Dec.	15,583,102	16,123,445	5,680	36,703
Apr.	166,222,992	166,980,188	30,324,679	Jan.	10,672,812	10,910,229	96,376	147,370
May	179,365,299	180,377,177	22,103,010	Feb.	6,764,525	7,239,965	29,937	148,578
3rd Qtr.	509,671,441	512,610,384	77,090,307	3rd Qtr.	33,020,439	34,273,639	131,993	332,652
June	132,934,667	133,784,539	13,740,797	Mar.	15,349,596	15,756,272	24,173	49,618
July	122,945,548	124,276,098	20,243,604	Apr.	8,796,666	9,029,851	12,420	114,674
Aug.	150,564,179	151,445,670	11,836,824	May	4,470,071	4,979,881	22,950	215,233
4th Qtr.	406,444,394	409,506,307	45,821,225	4th Qtr.	28,616,333	29,766,004	59,543	379,525
Total	1,716,425,122	1,727,799,414	231,582,514	Total	120,978,826	127,924,243	500,889	1,463,793

See footnotes at end of table.

Continued--

Appendix table 17--Corn, sorghum, barley, and oats exports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Bushels			
1988/89:				1988/89:				
Sept.	150,843,842	151,736,284	26,656,522	June	12,108,210	12,402,962	102,245	258,289
Oct.	170,295,536	171,523,785	19,499,969	July	11,513,586	11,757,762	38,739	88,239
Nov.	149,632,839	151,030,488	18,319,440	Aug.	2,214,904	2,500,232	24,394	145,962
1st Qtr.	470,772,217	474,290,557	64,475,931	1st Qtr.	25,836,700	26,660,956	165,378	492,490
Dec.	172,492,326	173,546,904	27,975,619	Sept.	8,758,198	8,833,519	21,017	90,049
Jan.	175,046,573	176,312,633	32,501,854	Oct.	1,432,089	2,161,176	30,378	57,096
Feb.	154,306,113	157,574,092	33,002,741	Nov.	2,452,268	3,055,490	73,371	126,759
2nd Qtr.	501,845,012	507,433,629	93,480,214	2nd Qtr.	12,642,555	14,050,185	124,766	273,904
Mar.	202,368,345	205,460,456	30,637,747	Dec.	15,121,435	15,440,102	29,605	51,848
Apr.	176,784,473	179,222,131	28,248,012	Jan.	80,147	413,415	115,949	154,007
May	210,557,382	212,026,525	21,693,179	Feb.	81,479	439,947	65,243	112,583
3rd Qtr.	589,710,200	596,709,112	80,578,938	3rd Qtr.	15,283,061	16,293,464	210,797	318,438
June	223,487,671	225,075,248	24,103,922	Mar.	1,964,318	2,424,402	22,528	70,335
July	133,142,282	134,985,912	25,119,356	Apr.	13,487,280	14,246,609	27,696	69,705
Aug.	106,804,527	109,292,691	23,735,155	May	9,713,427	10,504,815	27,144	60,605
4th Qtr.	463,434,480	469,353,851	72,958,433	4th Qtr.	25,165,025	27,175,826	77,368	200,645
Total	2,025,761,909	2,047,787,149	311,493,516	Total	78,927,341	84,180,431	578,309	1,285,477
1989/90:				1989/90:				
Sept.	113,777,062	116,262,534	33,760,429	June	7,364,678	8,121,997	73,579	134,643
Oct.	174,741,954	176,889,553	33,729,308	July	9,666,165	10,690,512	99,552	154,365
Nov.	293,764,876	295,404,866	22,408,021	Aug.	9,505,320	9,979,201	56,356	181,703
1st Qtr.	582,283,892	588,556,953	89,897,758	1st Qtr.	26,536,163	28,791,710	229,487	470,711
Dec.	258,806,717	260,503,877	19,612,682	Sept.	8,060,098	9,274,442	137,376	245,869
Jan.	239,115,303	241,192,495	33,378,664	Oct.	4,634,070	5,354,201	86,669	183,583
Feb.	183,848,863	186,700,501	28,182,433	Nov.	4,520,991	5,397,819	46,917	103,737
2nd Qtr.	681,770,882	688,396,873	81,173,779	2nd Qtr.	17,215,159	20,026,462	270,962	533,189
Mar.	193,492,212	197,237,477	31,489,103	Dec.	9,910,327	10,568,632	56,080	83,160
Apr.	193,837,455	199,184,860	27,623,294	Jan.	6,037,633	6,879,490	59,387	93,073
May	213,255,201	216,452,130	22,230,984	Feb.	6,786,607	6,980,135	36,790	65,546
3rd Qtr.	600,584,868	612,874,467	81,343,381	3rd Qtr.	22,734,567	24,428,257	152,257	241,779
June	201,188,633	204,550,034	12,501,920	Mar.	566,358	800,688	66,621	102,014
July	148,720,338	152,418,602	14,517,591	Apr.	8,154,575	9,663,656	71,995	110,933
Aug.	153,686,445	158,203,798	23,760,663	May	8,829,603	9,018,269	32,380	63,654
4th Qtr.	503,595,416	515,172,434	50,780,174	4th Qtr.	17,550,536	19,482,613	170,996	276,601
Total	2,368,235,058	2,405,000,727	303,195,092	Total	84,036,425	92,729,042	823,702	1,522,280
1990/91:				1990/91:				
Sept.	104,481,725	107,660,786	18,212,550	June	11,117,541	11,513,925	97,279	1,570,692
Oct.	108,167,173	111,681,827	17,699,775	July	9,710,625	10,087,024	40,786	85,603
Nov.	168,267,057	171,969,242	20,675,433	Aug.	10,034,291	10,539,588	44,988	110,494
1st Qtr.	380,915,955	391,311,855	56,587,758	1st Qtr.	30,862,457	32,140,537	183,053	1,766,789
Dec.	142,014,814	144,624,717	17,623,325	Sept.	1,988,477	3,087,548	126,284	169,650
Jan.	145,445,932	149,685,190	16,913,071	Oct.	14,051,755	14,502,068	60,283	128,768
Feb.	183,223,004	188,180,356	26,673,364	Nov.	9,145,553	9,384,739	44,644	114,072
2nd Qtr.	470,683,750	482,490,263	61,209,760	2nd Qtr.	25,185,785	26,974,355	231,211	412,490
Mar.	188,842,557	192,831,722	29,896,642	Dec.	12,191,330	13,434,072	16,328	72,335
Apr.	144,273,134	146,807,586	29,567,333	Jan.	5,306,020	5,997,147	56,218	123,360
May	120,483,221	125,189,787	16,533,105	Feb.	1,110,670	1,517,806	21,908	87,315
3rd Qtr.	453,598,912	464,829,095	75,997,080	3rd Qtr.	18,608,020	20,949,025	94,454	283,010
June	105,294,130	108,117,400	4,063,146	Mar.	2,768,592	3,627,196	23,631	2,293,212
July	163,712,172	169,497,385	14,771,928	Apr.	438,674	1,083,202	40,510	183,270
Aug.	150,394,375	153,885,735	19,554,555	May	2,764,091	4,068,414	38,168	136,809
4th Qtr.	419,400,677	431,500,520	38,389,629	4th Qtr.	5,971,357	8,778,813	102,308	2,613,291
Total	1,724,599,294	1,770,131,733	232,184,227	Total	80,627,619	88,842,730	611,026	5,075,580

See footnotes at end of table.

Continued--

Appendix table 17--Corn, sorghum, barley, and oats exports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Bushels			
1991/92:				1991/92:				
Sept.	134,767,135	137,614,861	14,959,285	June	679,758	1,335,352	58,422	121,576
Oct.	136,956,614	140,060,404	16,459,811	July	5,394,343	6,485,240	53,049	149,435
Nov.	149,537,473	152,976,219	15,121,274	Aug.	7,408,540	8,107,346	23,011	99,658
1st Qtr.	421,261,222	430,651,484	46,540,370	1st Qtr.	13,482,641	15,927,938	134,482	370,669
Dec.	127,343,966	130,025,340	30,157,833	Sept.	8,661,501	9,477,281	84,602	170,262
Jan.	100,189,249	102,917,540	35,198,141	Oct.	13,090,494	13,776,430	96,659	202,500
Feb.	134,155,436	136,462,241	42,850,982	Nov.	14,911,420	15,449,001	19,704	177,377
2nd Qtr.	361,688,651	369,405,121	108,206,956	2nd Qtr.	36,663,415	38,702,712	200,965	550,139
Mar.	124,300,247	126,979,997	34,571,072	Dec.	7,929,933	8,234,664	20,875	242,713
Apr.	142,446,226	145,122,719	45,425,727	Jan.	11,515,981	11,782,314	109,956	371,445
May	104,711,888	107,538,905	25,007,215	Feb.	5,187,016	5,698,245	48,226	202,737
3rd Qtr.	371,458,361	379,641,621	105,004,014	3rd Qtr.	24,632,930	25,715,223	179,057	816,895
June	147,780,588	150,657,616	8,305,140	Mar.	1,686,720	2,130,608	320,910	651,232
July	146,358,254	149,453,379	9,326,321	Apr.	11,396,426	12,749,187	673,168	813,441
Aug.	135,557,511	137,710,736	14,349,388	May	6,636,142	7,546,220	394,834	523,435
4th Qtr.	429,696,353	437,821,730	31,980,849	4th Qtr.	19,719,288	22,426,015	1,388,912	1,988,108
Total	1,584,104,587	1,617,519,956	291,732,189	Total	94,498,274	102,771,888	1,903,416	3,725,811
1992/93:				1992/93:				
Sept.	153,957,070	156,440,679	23,555,198	June	6,112,452	7,571,349	337,169	451,272
Oct.	139,423,233	142,209,375	19,463,829	July	5,114,631	5,669,888	319,670	437,796
Nov.	194,133,827	196,891,684	13,422,100	Aug.	7,136,040	7,769,056	376,990	658,652
1st Qtr.	487,514,130	495,541,738	56,441,127	1st Qtr.	18,363,123	21,010,293	1,033,830	1,547,720
Dec.	173,102,447	175,239,774	33,459,163	Sept.	5,269,184	5,968,023	704,032	902,051
Jan.	153,676,630	155,732,807	33,278,777	Oct.	6,811,777	7,581,022	925,252	1,127,925
Feb.	136,262,663	138,416,028	34,737,232	Nov.	9,947,530	10,406,612	429,419	621,799
2nd Qtr.	463,041,740	469,388,609	101,475,172	2nd Qtr.	22,028,491	23,955,657	2,058,704	2,651,775
Mar.	135,915,165	138,816,513	32,915,201	Dec.	8,404,065	9,162,048	292,870	455,869
Apr.	153,345,015	156,300,395	35,576,476	Jan.	3,686,266	4,645,437	412,402	512,386
May	122,030,479	124,811,344	18,923,576	Feb.	9,844,877	10,362,364	650,777	814,240
3rd Qtr.	411,290,659	419,928,252	87,415,253	3rd Qtr.	21,935,208	24,169,849	1,356,049	1,782,495
June	111,325,832	114,691,178	4,939,828	Mar.	5,658,346	7,324,734	444,645	514,950
July	91,300,944	94,188,399	12,041,956	Apr.	6,519,618	8,833,155	502,240	607,670
Aug.	98,804,662	101,518,710	14,879,077	May	5,768,991	6,935,036	304,789	460,022
4th Qtr.	301,431,438	310,398,287	31,860,861	4th Qtr.	17,946,955	23,092,925	1,251,674	1,582,642
Total	1,663,277,967	1,695,256,886	277,192,413	Total	80,273,777	92,228,724	5,700,257	7,564,632
1993/94:				1993/94:				
Sept.	138,867,694	142,258,582	14,698,166	June	3,878,573	5,772,239	636,998	767,269
Oct.	151,370,539	154,834,516	13,646,045	July	4,654,967	5,810,001	365,209	527,025
Nov.	145,171,373	149,012,561	10,904,887	Aug.	6,095,596	7,034,349	543,784	681,113
1st Qtr.	435,409,606	446,105,659	39,249,098	1st Qtr.	14,629,136	18,616,589	1,545,991	1,975,407
Dec.	141,959,529	145,783,316	17,376,483	Sept.	2,694,186	3,775,619	317,741	508,061
Jan.	101,814,263	104,362,995	19,591,247	Oct.	6,690,201	7,279,119	337,445	523,511
Feb.	86,221,275	89,145,290	23,446,505	Nov.	5,797,283	6,417,955	45,195	215,654
2nd Qtr.	329,995,067	339,291,601	60,414,235	2nd Qtr.	15,181,670	17,472,693	700,381	1,247,226
Mar.	111,186,983	115,149,749	27,258,986	Dec.	7,965,621	8,213,410	171,409	324,143
Apr.	86,418,560	89,114,616	19,397,929	Jan.	590,150	874,280	250,478	400,291
May	72,243,003	76,292,492	17,017,555	Feb.	3,552,133	3,786,330	99,415	264,103
3rd Qtr.	269,848,546	280,556,857	63,674,470	3rd Qtr.	12,107,904	12,874,020	521,302	988,537
June	86,503,878	90,441,024	9,360,785	Mar.	2,708,743	3,025,487	80,808	374,054
July	93,042,171	96,832,729	12,840,993	Apr.	12,214,039	13,070,171	85,125	244,063
Aug.	113,522,604	116,554,612	16,028,582	May	9,216,549	10,413,805	68,604	224,003
4th Qtr.	293,068,653	303,828,365	38,230,360	4th Qtr.	24,139,331	26,509,463	234,537	842,120
Total	1,328,321,872	1,369,782,482	201,568,163	Total	66,058,041	75,472,765	3,002,211	5,053,290
1994/95:				1994/95:				
Sept.				June	1,404,666	2,158,955	64,623	198,389
Oct.				July	12,006,416	12,824,548	103,429	269,293
Nov.				Aug.	6,935,190	7,588,506	22,031	154,642
1st Qtr.				1st Qtr.	20,346,272	22,572,009	190,083	622,324

1/ Total corn exports include grain only (white, yellow, seed, relief), dry process (cornmeal for relief, as grain, grits), and wet process (corn starch, sugar dextrose, glucose, high fructose). Sorghum includes seed and unmilled. Barley includes grain only (grain for malting purposes, other) and barley malt. Oats include grain and oatmeal (bulk and packaged).

Source: Bureau of the Census, U.S. Department of Commerce.

Appendix table 18--Corn, sorghum, barley, and oats imports, 1979/80 to date 1/

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Buels			
1979/80:				1979/80:				
Sept.	67,261	70,547	17	June	508,172	956,165	66,902	75,963
Oct.	60,135	91,870	33	July	1,053,302	1,401,581	32,700	53,911
Nov.	87,671	96,674	0	Aug.	184,716	853,786	103,339	112,444
1st Qtr.	215,067	259,091	50	1st Qtr.	1,746,190	3,211,532	202,941	242,318
Dec.	44,485	67,828	0	Sept.	146,405	480,704	81,605	103,334
Jan.	49,000	64,908	0	Oct.	481,803	755,918	45,908	61,834
Feb.	72,887	93,576	0	Nov.	511,546	736,945	54,732	57,802
2nd Qtr.	166,372	226,312	0	2nd Qtr.	1,139,754	1,973,567	182,245	222,970
Mar.	121,254	129,375	0	Dec.	1,046,665	1,322,822	50,978	64,850
Apr.	4,185	15,705	1,802	Jan.	702,837	977,405	48,718	56,241
May	74,202	84,856	0	Feb.	245,660	680,313	46,740	58,823
3rd Qtr.	199,641	229,936	1,802	3rd Qtr.	1,995,162	2,980,540	146,436	179,914
June	11,404	16,394	0	Mar.	958,739	1,536,331	68,318	91,744
July	20,221	26,082	394	Apr.	174,456	658,919	68,142	88,969
Aug.	108,026	112,586	0	May	1,151,699	1,476,137	108,118	122,956
4th Qtr.	139,651	155,062	394	4th Qtr.	2,284,894	3,671,387	244,578	303,669
Total	720,731	870,401	2,246	Total	7,166,000	11,837,026	776,200	948,871
1980/81:				1980/81:				
Sept.	174,580	251,525	17	June	620,387	1,007,100	208,364	217,350
Oct.	62,982	91,027	0	July	475,033	897,820	99,739	117,566
Nov.	54,852	119,771	7,143	Aug.	198,458	613,721	138,041	150,113
1st Qtr.	292,414	462,323	7,160	1st Qtr.	1,293,878	2,518,641	446,144	485,029
Dec.	815	14,058	0	Sept.	576,818	994,834	103,180	114,358
Jan.	981	41,791	0	Oct.	418,748	716,432	78,330	92,721
Feb.	1,471	117,558	1,429	Nov.	272,608	649,066	37,899	44,456
2nd Qtr.	3,267	173,407	1,429	2nd Qtr.	1,268,174	2,360,332	219,409	251,535
Mar.	43,305	114,750	1,125	Dec.	616,398	971,698	68,867	73,711
Apr.	1,810	41,432	16	Jan.	405,615	753,860	48,185	83,723
May	503	56,863	0	Feb.	502,852	786,383	72,464	90,183
3rd Qtr.	45,618	213,045	1,141	3rd Qtr.	1,524,865	2,511,941	189,516	247,617
June	407,509	418,284	39	Mar.	687,319	1,176,303	67,501	75,690
July	48,187	60,912	0	Apr.	388,038	662,947	100,117	105,706
Aug.	51,275	57,174	16	May	702,898	975,666	109,205	128,927
4th Qtr.	506,971	536,370	55	4th Qtr.	1,778,255	2,814,916	276,823	310,323
Total	848,270	1,385,145	9,785	Total	5,865,172	10,205,830	1,131,892	1,294,504
1981/82:				1981/82:				
Sept.	47,232	50,064	0	June	610,314	807,773	100,775	117,252
Oct.	54,527	85,484	0	July	338,217	528,962	65,137	86,099
Nov.	8,426	71,390	0	Aug.	160,069	369,781	53,075	60,145
1st Qtr.	110,185	206,938	0	1st Qtr.	1,108,600	1,706,516	218,987	263,496
Dec.	158,826	231,084	167	Sept.	318,906	648,411	76,882	83,979
Jan.	321	32,702	0	Oct.	181,471	437,924	60,349	69,425
Feb.	118	105,527	15	Nov.	647,471	896,666	70,277	81,798
2nd Qtr.	159,265	369,313	182	2nd Qtr.	1,147,848	1,983,001	207,508	235,202
Mar.	1,063	116,202	199	Dec.	892,812	1,086,699	60,553	70,180
Apr.	4,900	20,978	0	Jan.	780,039	989,703	30,724	43,110
May	34,328	54,210	106	Feb.	844,258	1,052,933	31,463	40,939
3rd Qtr.	40,291	191,390	305	3rd Qtr.	2,517,109	3,129,335	122,740	154,229
June	217,319	249,153	6,389	Mar.	487,592	690,770	41,105	67,490
July	29,526	45,153	0	Apr.	983,354	1,276,341	336,288	344,204
Aug.	89	6,720	9,873	May	631,815	824,440	557,422	572,517
4th Qtr.	246,934	301,026	16,262	4th Qtr.	2,102,761	2,791,551	934,815	984,211
Total	556,675	1,068,667	16,749	Total	6,876,318	9,610,403	1,484,050	1,637,138

See footnotes at end of table.

Continued--

Appendix table 18--Corn, sorghum, barley, and oats imports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Buels			
1982/83:				1982/83:				
Sept.	57,841	83,885	5,440	June	1,706,202	1,890,855	173,860	192,633
Oct.	36,755	63,827	38,834	July	1,602,675	1,808,382	311,531	322,304
Nov.	153,521	184,648	3,969	Aug.	578,914	869,862	157,066	186,560
1st Qtr.	248,117	332,360	48,243	1st Qtr.	3,887,791	4,569,099	642,457	701,497
Dec.	52,888	81,987	2,673	Sept.	271,038	520,052	42,950	67,955
Jan.	5,346	25,718	0	Oct.	118,788	375,818	41,249	48,694
Feb.	383	20,320	0	Nov.	901,290	1,166,105	69,839	82,915
2nd Qtr.	58,617	128,025	2,673	2nd Qtr.	1,291,116	2,061,975	154,038	199,564
Mar.	52,592	116,099	24	Dec.	210,376	359,493	80,919	101,512
Apr.	4,472	34,644	0	Jan.	411,890	602,902	327,193	343,005
May	29,196	49,197	0	Feb.	573,023	702,910	346,452	361,453
3rd Qtr.	86,260	199,940	24	3rd Qtr.	1,195,289	1,665,305	754,564	805,970
June	72,972	79,436	29	Mar.	695,950	855,026	688,400	846,946
July	1,489	8,400	0	Apr.	748,297	869,229	441,625	461,343
Aug.	21,394	29,572	0	May	532,160	644,747	830,870	849,348
4th Qtr.	95,855	117,408	29	4th Qtr.	1,976,407	2,369,002	1,960,895	2,157,637
Total	488,849	777,733	50,969	Total	8,350,603	10,665,381	3,511,954	3,864,668
1983/84:				1983/84:				
Sept.	187,378	224,236	55	June	984,175	1,076,280	1,352,013	1,374,965
Oct.	74,362	103,908	0	July	697,624	811,948	4,040,293	4,067,425
Nov.	135,991	181,386	0	Aug.	613,639	872,632	3,759,037	3,776,309
1st Qtr.	397,731	509,530	55	1st Qtr.	2,295,438	2,760,860	9,151,343	9,218,699
Dec.	10,484	58,924	0	Sept.	406,495	681,755	2,494,421	2,511,830
Jan.	301,147	361,028	0	Oct.	152,380	432,289	2,066,649	2,107,494
Feb.	238	164,021	0	Nov.	30,350	257,914	1,517,183	1,551,431
2nd Qtr.	311,869	583,973	0	2nd Qtr.	589,225	1,371,958	6,078,253	6,170,755
Mar.	55,570	310,958	0	Dec.	636,688	805,125	1,224,336	1,262,960
Apr.	421,092	460,456	0	Jan.	305,982	470,695	1,379,602	1,388,291
May	9,899	205,026	0	Feb.	105,250	246,267	3,637,066	3,665,607
3rd Qtr.	486,561	976,440	0	3rd Qtr.	1,047,920	1,522,087	6,241,004	6,316,858
June	134,071	176,922	9	Mar.	292,509	445,810	5,560,632	5,580,005
July	368,517	372,316	141,963	Apr.	418,999	581,084	1,940,376	1,958,505
Aug.	8,062	15,913	0	May	401,076	404,011	943,825	961,346
4th Qtr.	510,650	565,151	141,972	4th Qtr.	1,112,584	1,430,905	8,444,833	8,499,856
Total	1,706,811	2,635,094	142,027	Total	5,045,167	7,085,810	29,915,433	30,206,168
1984/85:				1984/85:				
Sept.	116,290	127,399	0	June	920,819	1,054,291	305,312	322,345
Oct.	260,438	317,134	0	July	722,362	883,625	1,469,282	1,490,031
Nov.	345,944	440,702	0	Aug.	1,023,658	1,165,980	217,465	234,276
1st Qtr.	722,672	885,235	0	1st Qtr.	2,666,839	3,103,896	1,992,059	2,046,652
Dec.	41,045	134,862	120,673	Sept.	284,510	466,491	3,771,243	3,786,897
Jan.	41,925	147,551	0	Oct.	276,438	505,461	3,449,893	3,462,452
Feb.	0	81,696	0	Nov.	300,744	591,477	1,485,364	1,494,579
2nd Qtr.	82,970	364,109	120,673	2nd Qtr.	861,692	1,563,429	8,706,500	8,743,928
Mar.	15,777	93,686	0	Dec.	1,640,951	1,899,683	4,119,279	4,138,000
Apr.	9,264	38,751	0	Jan.	358,752	618,802	4,035,973	4,095,972
May	824,177	936,859	0	Feb.	356,654	688,930	4,017,603	4,092,731
3rd Qtr.	849,218	1,069,296	0	3rd Qtr.	2,356,357	3,207,415	12,172,855	12,326,703
June	60,875	944,203	0	Mar.	537,365	905,566	3,857,568	3,900,423
July	1,428	39,177	0	Apr.	939,773	1,166,350	5,170,327	5,257,192
Aug.	15,836	135,868	0	May	60,460	160,312	1,728,469	7,008,343
4th Qtr.	78,139	1,119,248	0	4th Qtr.	1,537,598	2,232,228	10,756,364	16,165,958
Total	1,732,999	3,437,888	120,672	Total	7,422,486	10,106,968	33,627,778	39,283,241

See footnotes at end of table.

Continued--

Appendix table 18--Corn, sorghum, barley, and oats imports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Buels			
1985/86:				1985/86:				
Sept.	8,086	33,974	0	June	340,425	588,237	1,728,933	1,757,614
Oct.	314,654	350,199	0	July	251,910	478,428	1,889,404	1,931,401
Nov.	540,018	600,046	1,429	Aug.	61,653	345,756	825,818	834,833
1st Qtr.	862,758	984,219	1,429	1st Qtr.	653,988	1,412,421	4,444,155	4,523,848
Dec.	121,966	258,092	0	Sept.	109,312	347,927	1,288,425	1,304,864
Jan.	374,481	483,279	0	Oct.	872,324	1,087,159	1,256,991	1,264,610
Feb.	456,976	540,101	0	Nov.	339,674	591,311	1,672,252	1,678,864
2nd Qtr.	953,423	1,281,472	0	2nd Qtr.	1,321,310	2,026,397	4,217,668	4,248,338
Mar.	369,991	416,011	0	Dec.	592,242	689,112	3,210,457	3,232,191
Apr.	623,207	662,745	630	Jan.	528,661	935,239	3,264,356	3,284,460
May	1,212,047	1,240,983	0	Feb.	1,413,559	1,589,598	2,394,906	2,418,051
3rd Qtr.	2,205,245	2,319,739	630	3rd Qtr.	2,534,462	3,213,949	8,869,719	8,934,702
June	1,765,143	1,774,942	0	Mar.	261,745	443,882	2,336,953	2,366,047
July	2,994,897	3,082,335	797	Apr.	385,235	616,253	3,574,782	3,591,060
Aug.	1,116,694	1,139,076	0	May	1,088,551	1,276,845	3,795,409	3,822,076
4th Qtr.	5,876,734	5,996,353	797	4th Qtr.	1,735,531	2,336,980	9,707,144	9,779,183
Total	9,898,160	10,581,783	2,856	Total	6,245,291	8,989,747	27,238,686	27,486,071
1986/87:				1986/87:				
Sept.	311,213	332,783	6,329	June	1,296,495	1,501,548	5,325,371	5,345,316
Oct.	66,792	107,949	0	July	15,140	223,046	1,841,943	1,868,602
Nov.	333,201	353,750	33	Aug.	19,469	210,558	1,537,423	1,559,704
1st Qtr.	711,206	794,482	6,362	1st Qtr.	1,331,104	1,935,152	8,704,737	8,773,622
Dec.	66,353	131,009	0	Sept.	75,927	307,474	846,095	879,869
Jan.	85,979	134,935	0	Oct.	31,578	207,980	1,262,426	1,292,827
Feb.	14,207	52,622	86	Nov.	926,059	1,193,914	2,695,161	3,342,153
2nd Qtr.	166,539	318,566	86	2nd Qtr.	1,033,564	1,709,368	4,803,682	5,514,849
Mar.	29,812	63,602	0	Dec.	173,536	310,750	1,241,736	1,261,139
Apr.	400,056	428,391	0	Jan.	392,962	681,307	3,981,067	4,020,146
May	19,009	30,652	0	Feb.	625,953	772,737	3,994,932	4,027,553
3rd Qtr.	448,877	522,645	0	3rd Qtr.	1,192,451	1,764,794	9,217,735	9,308,838
June	326,401	339,131	0	Mar.	1,808,103	1,888,079	2,277,619	2,300,061
July	32,223	48,591	197	Apr.	508,133	591,606	3,401,071	3,434,844
Aug.	71,486	471,582	0	May	792,379	849,842	3,951,545	3,988,454
4th Qtr.	430,110	471,582	197	4th Qtr.	3,108,615	3,329,527	9,630,235	9,723,359
Total	1,756,732	2,107,275	6,645	Total	6,665,734	8,738,841	32,356,389	33,320,668
1987/88:				1987/88:				
Sept.	130,361	151,725	0	June	683,655	895,759	3,730,421	3,760,272
Oct.	354,333	373,790	24	July	195,998	445,492	1,717,932	1,735,424
Nov.	77,145	101,481	15	Aug.	220,222	434,668	1,541,932	1,582,741
1st Qtr.	561,839	626,996	39	1st Qtr.	1,099,875	1,775,919	6,990,285	7,078,437
Dec.	246,126	298,521	0	Sept.	1,061,243	1,396,437	1,712,779	1,744,204
Jan.	126,012	167,032	0	Oct.	926,329	1,222,581	1,270,484	1,372,822
Feb.	332,569	388,773	19	Nov.	876,498	1,209,701	5,106,952	5,148,944
2nd Qtr.	704,707	854,326	19	2nd Qtr.	2,864,070	3,828,719	8,090,215	8,265,970
Mar.	593,592	683,203	12	Dec.	1,146,248	1,384,778	2,537,116	2,566,987
Apr.	662,637	739,543	50	Jan.	1,846,528	2,038,574	4,086,315	4,154,507
May	113,606	140,762	0	Feb.	1,318,218	1,605,421	9,164,122	9,210,252
3rd Qtr.	1,369,835	1,563,508	62	3rd Qtr.	4,310,994	5,028,773	15,787,553	15,931,746
June	347,181	376,601	0	Mar.	1,163,560	1,280,709	6,426,933	6,482,646
July	257,479	275,042	0	Apr.	986,537	1,063,805	3,701,098	3,737,802
Aug.	169,701	207,314	7,229	May	876,452	961,089	4,721,106	4,756,988
4th Qtr.	774,361	858,957	7,229	4th Qtr.	3,026,549	3,305,603	14,849,137	14,977,436
Total	3,410,742	3,903,787	7,349	Total	11,301,488	13,939,014	45,717,190	46,253,589

See footnotes at end of table.

Continued--

Appendix table 18--Corn, sorghum, barley, and oats imports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Buels			
1988/89:				1988/89:				
Sept.	148,437	177,913	0	June	1,596,106	1,700,185	5,680,015	5,772,502
Oct.	296,701	308,058	3,673	July	930,207	1,029,127	2,276,583	2,365,501
Nov.	180,789	233,514	0	Aug.	317,223	417,363	4,298,356	4,485,006
1st Qtr.	625,927	719,485	3,673	1st Qtr.	2,843,536	3,146,675	12,254,954	12,623,009
Dec.	106,151	173,241	0	Sept.	240,729	365,319	2,059,442	2,367,645
Jan.	307,023	723,699	0	Oct.	402,245	555,196	3,995,388	4,239,340
Feb.	178,260	591,385	15,130	Nov.	1,523,621	1,651,752	5,834,991	6,184,617
2nd Qtr.	591,434	1,488,325	15,130	2nd Qtr.	2,166,595	2,572,267	11,889,821	12,791,602
Mar.	420,381	742,935	0	Dec.	490,420	578,085	4,696,591	5,153,441
Apr.	633,060	845,387	5	Jan.	729,443	838,489	6,100,483	6,906,243
May	162,021	356,329	0	Feb.	1,627,551	1,720,819	9,313,487	10,172,629
3rd Qtr.	1,215,462	1,944,651	5	3rd Qtr.	2,847,414	3,137,393	20,110,561	22,232,313
June	33,363	212,637	14	Mar.	762,924	851,359	7,169,256	8,042,377
July	223,459	382,968	0	Apr.	753,742	857,654	4,750,564	5,429,227
Aug.	93,469	348,056	0	May	1,136,714	1,239,385	6,723,912	7,307,316
4th Qtr.	350,291	943,661	14	4th Qtr.	2,653,380	2,948,398	18,643,732	20,778,920
Total	2,783,114	5,096,122	18,822	Total	10,510,925	11,804,733	62,899,068	68,425,844
1989/90:				1989/90:				
Sept.	38,078	278,865	0	June	1,649,125	1,745,195	3,146,832	3,789,238
Oct.	307,119	553,242	0	July	571,185	661,468	6,440,929	6,730,677
Nov.	297,019	545,010	0	Aug.	1,356,499	1,456,086	7,372,277	7,823,880
1st Qtr.	642,216	1,377,117	0	1st Qtr.	3,576,809	3,862,749	16,960,038	18,343,795
Dec.	98,067	284,277	0	Sept.	263,515	360,996	5,871,691	6,236,194
Jan.	247,828	427,823	0	Oct.	204,334	283,661	4,460,867	4,779,170
Feb.	92,762	248,372	0	Nov.	1,517,596	1,674,049	7,146,334	7,452,067
2nd Qtr.	438,657	960,472	0	2nd Qtr.	1,985,445	2,318,706	17,478,892	18,467,431
Mar.	182,222	320,108	74,979	Dec.	1,078,994	1,235,670	6,581,569	6,720,624
Apr.	162,070	340,157	826	Jan.	823,485	951,218	4,913,651	5,106,850
May	275,032	540,454	42,236	Feb.	1,396,491	1,556,043	4,198,054	4,343,569
3rd Qtr.	619,324	1,200,719	118,041	3rd Qtr.	3,298,970	3,742,931	15,693,274	16,171,043
June	33,491	302,083	23,864	Mar.	1,412,309	1,513,346	3,990,713	4,076,976
July	135,597	409,747	75,398	Apr.	1,333,963	1,417,784	8,952,950	9,062,504
Aug.	32,720	259,866	8,410	May	1,468,205	1,585,804	3,318,193	3,416,974
4th Qtr.	201,808	971,696	107,672	4th Qtr.	4,214,477	4,516,934	16,261,856	16,556,454
Total	1,902,005	4,510,004	225,713	Total	13,075,701	14,441,320	66,394,060	69,538,723
1990/91:				1990/91:				
Sept.	29,118	260,345	5,551	June	603,614	691,947	6,675,422	6,766,369
Oct.	172,220	496,429	0	July	309,116	547,246	5,841,249	5,908,451
Nov.	683,773	920,527	60	Aug.	117,460	357,140	4,998,143	5,090,611
1st Qtr.	885,111	1,677,301	5,611	1st Qtr.	1,030,190	1,596,333	17,514,814	17,765,432
Dec.	90,489	263,269	0	Sept.	117,510	200,053	2,240,097	2,358,047
Jan.	100,811	305,895	0	Oct.	293,888	485,842	4,464,410	4,636,239
Feb.	83,751	264,812	0	Nov.	839,438	1,014,543	4,970,603	5,078,808
2nd Qtr.	275,051	833,976	0	2nd Qtr.	1,250,836	1,700,438	11,675,110	12,073,094
Mar.	80,937	251,187	60,462	Dec.	1,288,335	1,569,231	6,027,830	6,118,040
Apr.	214,595	370,354	167	Jan.	1,194,977	1,306,682	2,543,485	2,642,746
May	487,548	647,502	12	Feb.	1,723,635	1,836,340	9,675,744	9,822,449
3rd Qtr.	783,080	1,269,043	60,641	3rd Qtr.	4,206,947	4,712,253	18,247,059	18,583,235
June	155,046	327,612	0	Mar.	2,248,034	2,423,555	4,618,596	4,763,254
July	423,345	640,317	679	Apr.	3,369,631	3,401,987	3,767,262	3,887,601
Aug.	893,816	1,121,419	1,319	May	1,373,891	1,581,999	7,585,984	7,719,294
4th Qtr.	1,472,207	2,089,348	1,998	4th Qtr.	6,991,556	7,407,541	15,971,842	16,370,149
Total	3,415,449	5,869,668	68,250	Total	13,479,529	15,416,565	63,408,825	64,791,910

See footnotes at end of table.

Continued--

Appendix table 18--Corn, sorghum, barley, and oats imports, 1979/80 to date 1/--Continued

Year and month	Corn: Grain only	Corn: Total	Sorghum	Year and month	Barley: Grain only	Barley: Total	Oats: Grain only	Oats: Total
	Bushels				Buels			
1991/92:				1991/92:				
Sept.	1,100,354	2,099,166	0	June	4,575,522	4,778,394	5,759,634	5,844,622
Oct.	2,251,767	3,433,843	0	July	1,743,996	1,919,668	7,175,340	7,240,484
Nov.	3,128,935	3,991,138	0	Aug.	1,120,846	1,279,512	8,780,737	8,871,528
1st Qtr.	6,481,056	9,524,147	0	1st Qtr.	7,440,364	7,977,574	21,715,711	21,956,634
Dec.	1,420,521	2,368,422	118	Sept.	567,099	652,111	4,958,443	5,041,886
Jan.	1,404,407	2,572,915	0	Oct.	1,232,489	1,313,834	9,129,115	9,219,462
Feb.	1,579,933	2,826,668	0	Nov.	1,657,843	1,741,481	3,209,866	3,325,064
2nd Qtr.	4,404,861	7,768,005	118	2nd Qtr.	3,457,431	3,707,426	17,297,424	17,586,412
Mar.	1,962,895	3,380,386	393	Dec.	1,818,152	2,009,904	4,236,846	4,411,775
Apr.	2,193,891	3,361,470	0	Jan.	2,349,600	2,483,012	5,997,604	6,120,696
May	1,247,071	2,395,941	225	Feb.	2,286,473	2,460,709	7,414,705	7,525,443
3rd Qtr.	5,403,857	9,137,797	618	3rd Qtr.	6,454,225	6,953,625	17,649,155	18,057,914
June	1,380,817	2,692,486	4,565	Mar.	2,525,374	2,676,242	6,625,725	6,729,380
July	1,390,021	2,499,421	1,567	Apr.	2,288,155	2,422,134	8,797,008	8,894,410
Aug.	576,112	1,777,124	394	May	2,356,369	2,453,301	2,679,647	2,788,631
4th Qtr.	3,346,950	6,969,031	6,526	4th Qtr.	7,169,898	7,551,677	18,102,380	18,412,421
Total	19,636,724	33,398,980	7,262	Total	24,521,918	26,190,302	74,764,670	76,013,381
1992/93:				1992/93:				
Sept.	221,471	1,553,822	0	June	2,159,260	2,244,926	7,323,161	7,515,000
Oct.	296,504	1,510,619	0	July	3,279,771	3,467,803	4,075,120	4,197,542
Nov.	739,778	1,843,315	0	Aug.	1,117,761	1,210,126	3,740,291	3,898,321
1st Qtr.	1,257,753	4,907,756	0	1st Qtr.	6,556,792	6,922,855	15,138,572	15,610,863
Dec.	541,980	1,818,086	0	Sept.	566,767	676,418	2,452,932	2,632,483
Jan.	241,471	1,522,523	0	Oct.	499,308	594,740	3,920,278	4,104,556
Feb.	255,908	1,280,493	4,650	Nov.	467,239	565,914	5,525,416	5,733,071
2nd Qtr.	1,039,359	4,621,102	4,650	2nd Qtr.	1,533,314	1,837,072	11,898,626	12,470,110
Mar.	629,207	2,075,358	0	Dec.	359,479	465,468	5,190,977	5,359,648
Apr.	555,199	2,108,923	148	Jan.	611,251	750,665	2,661,061	2,875,420
May	814,925	2,048,094	876	Feb.	476,363	647,058	2,845,670	3,107,494
3rd Qtr.	1,999,331	6,232,374	1,024	3rd Qtr.	1,447,093	1,863,191	10,697,708	11,342,562
June	691,647	1,927,256	6,736	Mar.	321,428	466,275	1,979,249	2,238,823
July	978,610	2,242,449	0	Apr.	548,083	705,239	7,656,387	7,939,956
Aug.	1,124,329	2,532,369	0	May	997,906	1,088,029	7,607,251	7,818,451
4th Qtr.	2,794,586	6,702,074	6,736	4th Qtr.	1,867,417	2,259,543	17,242,887	17,997,230
Total	7,091,029	22,463,306	12,410	Total	11,404,616	12,882,661	54,977,793	57,420,765
1993/94:				1993/94:				
Sept.	626,777	2,048,980	0	June	951,500	1,133,778	8,118,931	8,329,893
Oct.	1,022,455	2,306,477	0	July	751,986	1,104,042	5,207,841	5,471,101
Nov.	3,559,780	4,807,204	0	Aug.	1,467,158	1,868,049	3,492,138	3,724,005
1st Qtr.	5,209,012	9,162,661	0	1st Qtr.	3,170,644	4,105,869	16,818,910	17,524,999
Dec.	3,358,367	4,746,265	2,859	Sept.	1,495,435	1,919,584	9,336,793	9,728,511
Jan.	1,942,517	3,287,367	14	Oct.	3,536,261	3,967,197	11,312,576	11,783,389
Feb.	2,652,844	3,778,840	3,819	Nov.	5,737,065	5,938,311	14,228,011	14,705,412
2nd Qtr.	7,953,728	11,812,472	6,692	2nd Qtr.	10,768,761	11,825,092	34,877,380	36,217,312
Mar.	3,127,232	4,496,118	0	Dec.	9,548,547	9,837,874	15,145,835	15,521,516
Apr.	1,745,743	2,952,344	0	Jan.	6,305,201	6,456,667	8,356,046	8,656,598
May	1,401,306	2,477,028	94	Feb.	7,828,521	8,094,532	7,868,091	8,229,651
3rd Qtr.	6,274,281	9,925,490	94	3rd Qtr.	23,682,269	24,389,073	31,369,972	32,407,765
June	639,210	1,760,985	866	Mar.	9,182,180	9,551,416	5,834,471	6,258,538
July	363,591	1,400,676	118	Apr.	13,199,853	13,538,720	6,966,622	7,298,970
Aug.	375,230	1,420,154	0	May	11,471,981	11,965,254	10,954,717	11,339,625
4th Qtr.	1,378,031	4,581,815	984	4rd Qtr.	33,854,014	35,055,390	23,755,810	24,897,133
Total	20,815,052	35,482,438	7,770	Total	71,475,688	75,375,424	106,822,072	111,047,209
1994/95:				1994/95:				
Sept.				June	11,000,515	11,489,434	8,651,819	9,149,458
Oct.				July	6,945,978	7,525,251	6,060,150	6,673,769
Nov.				Aug.	6,177,541	6,529,860	5,683,580	6,514,150
1st Qtr.				1st Qtr.	24,124,034	25,544,545	20,395,549	22,337,377

1/ Corn includes grain only (yellow dent corn, other), seed, and cornmeal. Sorghum is grain only. Barley includes grain only barley for malting, other), pearl barley, milled and malting. Oats include grain (hulled or unhulled), unhulled oats fit and unfit for human consumption, and oatmeal fit for human consumption.

Source: Bureau of the Census, U.S. Department of Commerce.

Appendix table 19--Feed grains and grain products used in the production of alcohol, distilled spirits, and beer, by month, 1976 to date 1/ 2/

Year	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Total
							1 ,000 bushels						
							Corn and corn products						
Distilled spirits and alcohol:													
1976	1,511	2,072	1,632	1,274	1,464	1,607	2,022	2,004	1,959	1,756	1,416	1,613	20,330
1977	1,884	1,705	1,444	1,459	1,451	1,495	1,628	1,912	1,995	1,746	750	1,624	19,094
1978	1,682	1,962	2,121	2,121	1,849	1,928	2,168	2,274	2,399	2,217	907	1,539	23,166
1979	1,920	2,378	2,501	1,696	2,149	2,174	2,826	2,795	2,738	2,153	910	1,565	25,803
1980	1,737	2,110	1,836	1,903	2,441	2,297	2,949	2,775	2,234	1,802	1,593	2,055	25,730
1981	2,240	2,621	2,066	2,550	2,433	2,869	4,024	3,630	3,369	3,261	4,075	3,528	36,666
1982	4,829	6,291	6,007	6,443	6,188	5,654	6,029	4,584	5,565	5,955	5,135	4,985	67,665
1983	3,898	3,892	3,599	3,446	3,690	3,800	4,261	4,238	3,902	3,091	2,571	3,035	43,422
1984	3,532	5,395	5,299	5,150	5,294	5,262	6,033	5,403	4,568	5,950	6,385	5,640	63,911
1985	5,691	5,997	2,927	2,071	2,243	2,162	2,788	3,114	4,679	4,571	3,816	3,989	44,048
1986	4,501	4,994	4,568	4,797	4,618	4,376	4,775	4,536	4,756	4,614	4,334	4,288	55,158
1987	4,481	4,522	3,721	3,917	3,907	3,862	5,010	4,443	4,530	4,199	3,526	3,550	49,669
1988	3,932	4,798	4,072	4,510	5,595	5,272	8,397	7,632	9,222	8,369	7,642	8,524	77,965
1989	9,603	10,839	10,067	10,263	11,848	11,453	10,988	10,659	9,015	8,358	8,885	9,851	121,830
1990	11,198	10,773	12,113	6,235	6,497	11,465	10,606	10,427	12,280	11,214	3,998	10,313	117,118
1991	11,852	13,038	12,169	13,354	13,992	12,671	13,769	12,834	13,125	12,501	12,987	11,678	153,971
1992	12,009	7,058	6,056	4,754	13,184	13,254	13,992	13,471	11,760	12,374	11,917	10,802	130,631
1993	12,470	13,661	13,358	13,802	13,838	13,123	13,550						
Beer:													
1976	4,118	4,006	3,422	3,381	3,715	3,693	5,526	5,375	5,402	5,275	4,890	4,805	53,609
1977	3,900	3,679	3,644	3,793	3,960	3,904	4,555	4,708	4,788	5,017	4,656	4,892	51,496
1978	3,989	3,907	3,511	3,478	3,529	3,166	4,232	4,149	4,334	4,115	4,366	4,206	46,983
1979	3,547	3,546	3,191	2,991	3,463	3,787	4,049	4,011	4,376	4,335	4,627	4,353	46,275
1980	3,985	3,600	3,359	3,772	3,070	3,576	3,965	4,262	4,530	4,540	4,693	4,117	47,468
1981	3,586	3,547	2,959	3,102	3,389	3,447	4,015	3,998	4,178	3,677	3,829	3,878	43,606
1982	3,461	3,329	2,910	2,960	3,157	3,128	3,809	3,633	3,884	4,038	4,255	3,787	42,350
1983	3,421	3,127	2,857	2,362	3,180	3,408	4,049	4,234	4,169	3,963	3,994	3,569	42,332
1984	2,829	3,327	2,673	2,397	2,889	2,985	3,314	3,923	4,240	4,078	3,595	3,410	39,661
1985	3,220	3,259	2,649	2,498	3,191	3,157	3,469	3,929	4,120	3,838	3,770	3,110	40,210
1986	2,759	2,862	2,419	2,411	2,777	2,858	3,164	3,073	3,199	3,178	3,049	2,780	34,529
1987	2,734	2,362	2,213	2,103	2,620	2,671	2,948	3,384	3,258	3,212	2,714	2,672	32,890
1988	2,318	2,434	2,167	1,919	2,380	2,541	2,893	2,713	2,951	2,986	2,925	3,096	31,321
1989	2,381	2,451	2,109	2,120	2,661	2,666	3,022	2,971	3,160	3,228	3,053	3,091	32,913
1990	2,553	2,751	2,529	2,145	2,633	2,675	2,774	2,908	2,992	3,252	3,378	3,294	33,882
1991	2,587	2,830	2,310	2,180	2,488	2,777	2,928	3,188	3,128	3,242	3,163	2,824	33,644
1992	2,515	2,624	2,495	2,403	2,535	2,797	3,158	3,035	3,271	3,339	2,777	2,834	33,784
1993	2,704	2,566	2,514	2,222	2,566	2,302	3,159						
Total distilled spirits and beer:													
1976	5,629	6,078	5,053	4,655	5,180	5,299	7,549	7,379	7,361	7,031	6,306	6,419	73,939
1977	5,784	5,384	5,088	5,252	5,412	5,399	6,183	6,620	6,783	6,763	5,405	6,516	70,589
1978	5,671	5,869	5,632	5,599	5,378	5,095	6,400	6,423	6,733	6,332	5,273	5,745	70,149
1979	5,466	5,924	5,692	4,687	5,612	5,960	6,875	6,806	7,114	6,488	5,537	5,918	72,078
1980	5,723	5,709	5,195	5,674	5,510	5,873	6,913	7,036	6,764	6,342	6,286	6,172	73,199
1981	5,826	6,168	5,025	5,651	5,823	6,316	8,039	7,628	7,547	6,938	7,904	7,406	80,271
1982	8,290	9,620	8,916	9,403	9,344	8,782	9,838	8,218	9,449	9,993	9,390	8,773	110,015
1983	7,319	7,018	6,456	5,808	6,870	7,208	8,309	8,471	8,071	7,054	6,565	6,604	85,754
1984	6,361	8,722	7,972	7,547	8,183	8,247	9,347	9,327	8,808	10,029	9,980	9,050	103,572
1985	8,911	9,255	5,576	4,569	5,434	5,318	6,257	7,043	8,800	8,410	7,585	7,099	84,257
1986	7,260	7,856	6,987	7,208	7,396	7,234	7,940	7,609	7,956	7,792	7,384	7,068	89,687
1987	7,215	6,884	5,934	6,020	6,526	6,533	7,958	7,827	7,788	7,411	6,240	6,222	82,559
1988	6,249	7,232	6,239	6,429	7,974	7,814	11,290	10,345	12,174	11,354	10,566	11,620	109,286
1989	11,984	13,290	12,177	12,384	14,509	14,118	14,010	13,631	12,175	11,586	11,938	12,942	154,743
1990	13,751	13,524	14,642	8,379	9,130	14,140	13,380	13,335	15,272	14,465	7,376	13,606	151,000
1991	14,439	15,868	14,479	15,534	16,479	15,448	16,697	16,022	16,253	15,743	16,150	14,502	187,614
1992	14,524	9,682	8,551	7,156	15,719	16,052	17,150	16,506	15,032	15,713	14,694	13,635	164,415
1993	15,173	16,227	15,873	16,024	16,403	15,425	16,709						
							Grain sorghum						
Distilled spirits and alcohol:													
1976	252	277	224	201	212	214	200	212	246	237	245	225	2,746
1977	237	294	216	250	289	354	306	294	307	300	386	316	3,550
1978	308	363	369	368	366	320	375	353	347	296	331	349	4,144
1979	349	442	434	418	460	392	368	271	399	320	406	353	4,612
1980	331	380	415	399	199	275	379	340	380	381	357	370	4,206
1981	409	392	410	456	420	406	437	390	415	386	415	371	4,907
1982	269	231	378	389	356	355	241	264	299	347	322	253	3,704
1983	334	409	364	334	279	263	195	246	299	326	306	323	3,678
1984	362	1,311	1,207	1,503	1,085	835	1,117	1,110	943	516	474	523	10,984
1985	1,170	1,499	2,183	2,762	2,875	2,694	2,798	2,056	769	410	1,515	833	21,565
1986	467	315	370	423	519	363	360	471	421	337	444	318	4,808
1987	348	593	610	1,021	1,215	1,289	1,129	1,327	2,506	2,679	2,816	2,350	17,883
1988	2,161	2,816	2,496	2,287	1,670	405	506	465	473	484	772	541	15,075
1989	557	584	571	521	609	577	598	1,399	2,270	748	2,365	1,024	11,823
1990	552	515	464	467	443	459	448	440	435	422	427	461	5,531
1991	452	518	470	392	431	413	505	367	375	334	326	0	4,584
1992	298	395	349	422	381	37	480	399	401	404	368	367	4,300
1993	417	312	429	386	327	319	385						

See footnote at end of table.

Continued--

Appendix table 19--Feed grains and grain products used in the production of alcohol, distilled spirits, and beer, by month, 1976 to date--Continued 1/ 2/

Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
						1,000 bushels							
						Barley and malt							
Distilled spirits and alcohol:													
1976	263	147	173	209	231	193	212	227	246	331	293	288	2,813
1977	256	198	259	262	265	203	184	202	210	226	250	268	2,782
1978	228	127	240	269	289	321	340	256	294	336	352	363	3,416
1979	302	156	221	264	291	272	287	266	254	333	330	352	3,328
1980	222	119	179	195	241	164	231	320	298	357	345	320	2,992
1981	248	162	189	247	316	297	263	287	302	359	369	284	3,321
1982	234	199	185	456	309	274	225	252	292	315	288	248	3,276
1983	180	94	131	157	167	181	160	211	263	289	252	213	2,300
1984	105	56	110	162	215	240	167	192	194	180	156	182	1,959
1985	153	119	141	148	173	370	122	163	169	185	183	148	2,075
1986	127	95	77	114	140	117	115	161	167	253	225	200	1,792
1987	111	83	100	84	107	107	73	84	105	153	151	155	1,314
1988	123	93	118	152	188	189	180	196	155	240	268	286	2,189
1989	197	129	201	210	147	256	213	255	247	250	458	290	2,853
1990	207	126	174	184	239	241	221	230	239	183	132	107	2,281
1991	166	128	106	205	239	171	249	244	218	219	186	159	2,289
1992	117	61	42	132	177	175	146	178	156	235	221	161	1,802
1993	113	64	97	155	196	198	156	174	198	221			
Beer:													
1976	11,988	12,297	12,271	10,969	10,304	8,567	8,504	9,244	8,693	11,930	12,164	12,240	129,172
1977	12,671	11,983	11,103	9,594	9,448	9,244	8,901	9,950	9,832	12,355	12,170	12,656	129,907
1978	13,060	13,051	14,021	11,494	12,095	9,849	10,142	10,792	10,523	13,284	12,614	13,327	144,251
1979	13,106	13,293	13,120	11,450	12,014	10,689	10,482	11,100	12,062	12,977	13,241	14,035	147,570
1980	14,190	14,721	14,148	12,861	12,106	10,548	10,616	10,622	11,595	12,858	13,678	14,451	152,394
1981	14,194	14,356	13,466	11,806	11,319	9,852	10,057	12,234	11,232	12,813	13,194	13,260	147,782
1982	13,628	12,430	12,590	11,537	11,251	10,061	9,981	11,112	10,640	12,862	12,724	13,350	142,165
1983	13,427	13,027	13,069	10,778	10,779	9,669	9,030	10,526	10,925	13,008	12,289	13,632	140,159
1984	13,333	13,751	12,456	10,396	10,939	9,383	9,669	11,161	10,357	12,253	13,101	13,390	140,190
1985	12,880	12,597	11,646	10,367	11,040	9,363	9,578	11,568	11,082	11,925	12,967	12,855	137,868
1986	13,472	13,535	11,904	10,862	11,163	9,719	10,387	11,627	11,126	12,739	12,150	12,669	141,352
1987	12,781	12,273	11,905	11,325	11,114	9,055	9,935	11,155	11,468	12,397	12,857	13,126	139,391
1988	13,161	12,914	12,264	10,955	11,123	10,300	9,690	11,388	11,111	12,756	12,530	13,170	141,362
1989	13,241	13,089	13,282	10,979	11,217	9,992	9,713	11,945	11,415	12,928	12,569	13,329	143,698
1990	13,159	13,056	13,508	11,361	12,205	10,194	9,890	11,785	10,920	11,614	12,333	13,161	143,187
1991	13,477	13,697	12,980	11,449	11,803	10,047	9,597	11,113	11,688	12,980	12,354	13,048	144,233
1992	12,921	13,300	12,349	10,780	11,356	10,191	10,071	10,642	11,294	12,175	12,220	13,225	140,524
1993	12,991	13,112	12,395	11,659	10,980	10,777	10,334	11,321	9,875	12,881			
Total distilled spirits and beer:													
1976	12,252	12,444	12,444	11,178	10,535	8,760	8,716	9,471	8,939	12,261	12,457	12,528	131,985
1977	12,927	12,181	11,362	9,856	9,713	9,447	9,086	10,152	10,042	12,581	12,419	12,924	132,689
1978	13,287	13,178	14,261	11,764	12,384	10,170	10,482	11,048	10,818	13,620	12,966	13,689	147,667
1979	13,408	13,449	13,341	11,714	12,305	10,961	10,770	11,366	12,316	13,310	13,571	14,387	150,898
1980	14,412	14,840	14,327	13,056	12,348	10,712	10,847	10,942	11,893	13,215	14,023	14,772	155,386
1981	14,441	14,518	13,654	12,053	11,635	10,149	10,319	12,521	11,534	13,172	13,562	13,543	151,103
1982	13,862	12,629	12,775	11,992	11,560	10,335	10,206	11,365	10,931	13,177	13,012	13,598	145,442
1983	13,607	13,121	13,200	10,935	10,946	9,851	9,191	10,737	11,187	13,297	12,541	13,845	142,459
1984	13,438	13,807	12,567	10,557	11,155	9,623	9,836	11,353	10,550	12,433	13,256	13,572	142,149
1985	13,033	12,717	11,787	10,516	11,213	9,733	9,700	11,731	11,251	12,110	13,150	13,003	139,943
1986	13,599	13,630	11,982	10,976	11,304	9,835	10,502	11,788	11,292	12,993	12,375	12,869	143,144
1987	12,893	12,356	12,005	11,409	11,221	9,162	10,008	11,240	11,573	12,550	13,008	13,280	140,705
1988	13,285	13,007	12,382	11,107	11,311	10,489	9,870	11,584	11,266	12,996	12,798	13,456	143,550
1989	13,438	13,217	13,483	11,189	11,364	10,248	9,926	12,200	11,661	13,178	13,027	13,620	146,551
1990	13,366	13,182	13,682	11,545	12,444	10,435	10,110	12,015	11,159	11,796	12,465	13,267	145,468
1991	13,643	13,824	13,086	11,655	12,043	10,218	9,846	11,356	11,906	13,199	12,540	13,206	146,522
1992	13,038	13,361	12,391	10,912	11,533	10,367	10,217	10,821	11,450	12,411	12,441	13,386	142,325
1993	13,104	13,176	12,492	11,814	11,176	10,975	10,490	11,495	10,073	13,101			

1/ Mostly for beverage but also includes some industrial alcohol and may include some fuel alcohol. 2/ Data reflects revisions from 1975 to present.

Source: Department of the Treasury, Bureau of Alcohol, Tobacco and Firearms.

Appendix table 20--Hay: Production, harvested acreage, yield, prices received by farmers, and stocks

Year	Production: Alfalfa hay	Production: Other	Production: Total all hay	Harvested acreage	Yield per harvested acre	Season average price	Stocks: May 1	Stocks: December 1
	1,000 tons			1,000 acres	Tons	$/ton	100 tons	
1970	75,573	51,396	126,969	61,467	2.07	26.10	24,056	89,365
1971	77,285	51,847	129,132	61,355	2.10	28.10	22,200	87,651
1972	78,226	50,339	128,565	59,680	2.15	31.30	25,472	89,445
1973	78,805	55,412	134,217	61,828	2.17	41.60	24,311	88,790
1974	74,368	52,016	126,384	60,195	2.10	50.90	25,353	93,159
1975	78,183	54,214	132,397	61,353	2.16	52.10	18,505	84,687
1976	69,960	50,165	120,125	60,377	1.99	60.20	25,541	86,411
1977	80,814	51,397	132,211	60,988	2.17	53.70	19,540	77,651
1978	87,294	56,523	143,817	62,113	2.32	49.80	24,184	92,136
1979	88,110	59,197	147,307	61,279	2.40	59.40	30,108	99,024
1980	79,963	50,777	130,740	58,870	2.22	71.00	33,192	107,707
1981	83,696	58,824	142,520	59,599	2.39	67.30	25,374	91,689
1982	88,385	60,856	149,241	59,812	2.50	69.30	24,981	99,160
1983	82,255	58,483	140,738	59,694	2.36	75.80	28,118	103,996
1984	90,144	60,438	150,582	61,414	2.45	72.70	20,140	89,262
1985	85,121	63,598	148,719	60,461	2.46	67.60	26,826	100,533
1986	91,865	63,520	155,385	62,334	2.49	59.70	26,731	1/ 121,200
1987	84,225	63,232	147,457	60,133	2.45	65.00	32,333	118,593
1988	69,304	56,706	126,010	65,055	1.94	85.20	27,074	90,312
1989	77,370	68,142	145,512	63,300	2.30	85.40	17,507	101,194
1990	83,555	63,265	146,820	61,407	2.39	80.60	27,089	104,873
1991	83,795	69,530	153,325	62,475	2.45	71.20	27,023	111,404
1992	79,571	69,292	148,863	59,597	2.50	74.30	28,599	105,601
1993	80,878	67,976	148,854	60,398	2.46	81.60	21,102	101,888
1994	82,477	71,408	153,885	60,315	2.55	NA	22,714	NA

NA = Not available.
1/ Per program modification, hay stocks survey reference date was changed from January 1 to December 1 beginning December 1, 1986.

Source: Agricultural Statistics Board, USDA.

Appendix table 21--Hay: Average prices received by farmers, United States, by month, 1970/71-1994/95 1/

Year	May	June	July	Aug.	Sept.	Oct. 2/	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Average 3/
	$/ton												
1970/71	23.50	22.40	22.10	22.50	23.30	23.90	24.40	25.00	25.40	25.80	26.00	26.10	26.10
1971/72	25.60	24.60	24.10	24.30	24.50	24.90	25.30	26.10	29.20	29.70	29.00	28.00	28.10
1972/73	31.10	30.90	28.50	29.30	29.80	30.30	31.00	33.00	34.60	35.40	35.40	33.90	31.30
1973/74	37.50	35.20	36.30	39.00	43.10	46.20	46.80	46.00	47.10	47.10	45.40	44.40	41.60
1974/75	54.00	47.70	48.20	51.10	51.90	51.50	50.30	50.70	50.10	49.30	49.70	52.40	50.90
1975/76	56.30	53.60	51.20	51.00	50.80	50.30	50.20	51.60	52.70	54.30	54.10	54.10	52.10
1976/77	64.10	59.60	59.00	58.70	60.80	60.10	59.00	59.00	60.90	62.70	63.90	63.20	60.20
1977/78	68.10	61.30	56.80	52.50	50.00	48.20	48.40	49.50	50.50	51.80	51.40	51.40	53.70
1978/79	55.30	51.20	49.20	49.00	47.80	47.10	46.40	47.30	48.90	50.70	50.20	49.90	49.80
1979/80	65.60	58.00	56.00	57.50	59.00	60.80	58.90	60.10	59.10	60.00	57.40	60.10	59.40
1980/81	69.30	65.10	67.00	67.20	71.90	77.20	75.00	74.80	72.80	72.50	69.80	68.20	71.00
1981/82	75.30	66.90	64.00	63.90	62.70	64.80	65.40	65.70	67.90	69.90	69.50	73.30	67.30
1982/83	77.50	69.60	66.10	65.00	66.80	67.10	68.70	68.60	70.30	73.20	69.90	74.00	69.30
1983/84	78.10	72.70	71.20	71.20	74.70	76.80	75.10	76.70	76.60	78.70	79.40	79.80	75.80
1984/85	82.50	76.10	72.40	70.40	70.70	73.10	71.40	73.40	73.00	73.10	72.20	72.50	72.70
1985/86	80.80	70.20	67.90	65.20	67.10	67.50	64.30	65.40	65.80	66.70	67.10	66.20	67.60
1986/87	66.70	61.00	58.80	58.20	57.60	57.90	56.00	57.70	56.10	58.50	59.20	64.10	59.70
1987/88	71.70	62.90	61.20	62.70	64.10	64.20	61.10	63.20	62.80	64.60	67.20	71.40	65.00
1988/89	79.70	77.00	81.60	81.40	82.90	85.10	86.40	87.60	89.50	91.80	96.90	101.00	85.20
1989/90	100.00	90.20	83.40	81.60	85.70	83.20	83.20	83.50	84.90	85.70	87.50	95.00	85.40
1990/91	96.00	85.00	81.60	81.00	83.20	84.00	80.40	78.70	77.90	77.80	80.50	85.50	80.60
1991/92	81.10	75.20	71.80	70.80	69.80	68.50	68.20	68.90	68.70	71.10	69.90	70.90	71.20
1992/93	79.50	75.80	69.70	71.90	70.10	70.30	71.00	73.50	76.10	78.00	80.50	83.60	74.30
1993/94	86.60	79.60	76.90	77.50	78.80	82.30	84.20	83.50	85.70	86.90	90.80	98.20	81.60
1994/95	100.00	88.70	82.50	83.10	82.40	86.80							

1/ Prices reported for mid-month. 2/ October 1994 data is preliminary. 3/ U.S. season-average prices weighted by marketings.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

Appendix table 22--Shipments of grain on the Illinois waterway and the Mississippi River (Locks 11-22), 1981/82-1994/95

Crop year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						Million tons							
1981/82	3.4	3.4	4.6	3.9	1.2	0.8	2.1	4.1	3.8	4.4	3.9	5.0	3.4
1982/83	4.1	3.2	4.2	3.2	2.7	2.3	3.8	3.3	3.9	4.2	4.2	4.8	3.6
1983/84	5.3	4.9	5.7	4.4	1.0	3.6	4.5	5.3	4.4	3.7	3.4	3.3	4.1
1984/85	3.1	4.6	5.5	3.1	2.0	0.9	3.1	4.1	3.1	3.2	3.4	3.0	3.3
1985/86	2.4	2.6	4.3	3.3	1.8	1.7	2.9	3.4	3.6	3.2	2.5	3.3	2.9
1986/87	3.2	3.1	5.2	2.4	1.2	1.7	3.6	3.8	4.0	3.8	2.8	3.5	3.2
1987/88	3.3	3.8	3.9	2.9	1.9	2.0	3.0	4.2	4.3	3.6	2.7	3.3	3.2
1988/89	3.3	3.3	3.9	3.5	1.7	1.5	2.6	3.5	4.3	4.1	3.9	3.4	3.3
1989/90	3.0	3.9	4.7	2.5	2.2	2.2	3.5	4.5	5.2	4.5	5.0	4.0	3.8
1990/91	3.6	3.4	4.8	2.1	1.6	2.0	3.1	4.0	3.7	3.6	4.4	3.8	3.4
1991/92	3.3	3.5	3.7	2.9	1.8	2.0	3.4	3.8	4.1	4.1	4.8	4.6	3.5
1992/93	3.2	2.6	3.3	2.9	2.0	1.7	3.0	2.5	3.7	3.7	0.4	1.3	2.5
1993/94	3.6	3.5	3.0	2.9	1.5	1.7	2.4	2.9	2.8	2.5	3.3	3.1	2.8
1994/95	2.0												

Source: Mississippi River Barge Traffic, U.S. Army Corps of Engineers, Rock Island District.

Appendix table 23--Weekly average of rail car loadings of grain and soybeans, 1981/82-1994/95

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						Carloads							
1981/82	25,607	25,609	27,419	22,384	22,967	27,220	26,813	25,798	23,755	22,540	27,020	25,123	25,188
1982/83	20,321	29,523	25,350	21,888	24,700	26,318	26,807	21,243	20,849	21,393	27,942	27,461	24,483
1983/84	29,735	31,414	29,515	25,927	31,068	29,105	27,666	26,784	23,616	24,335	26,632	29,848	27,970
1984/85	29,162	24,482	28,587	25,441	25,310	23,688	23,340	20,164	17,715	24,724	22,662	20,218	23,791
1985/86	18,889	26,227	28,214	23,482	25,424	22,558	20,648	17,743	17,673	24,907	24,426	24,342	22,878
1986/87	27,329	33,605	29,877	24,827	23,086	26,663	27,134	25,046	26,189	32,154	32,257	30,825	28,249
1987/88	32,977	32,820	29,947	29,225	32,223	34,224	34,241	32,963	30,861	33,316	29,678	27,010	31,624
1988/89	29,014	30,628	27,140	27,120	30,324	30,583	31,436	30,181	25,943	27,253	25,095	25,990	28,392
1989/90	24,437	28,950	31,701	29,411	32,250	32,605	29,648	27,938	25,696	28,122	25,717	26,904	28,615
1990/91	23,982	27,622	26,822	24,359	26,337	28,560	28,100	24,927	20,833	24,500	25,581	27,573	25,766
1991/92	27,537	29,833	27,300	28,264	30,017	29,966	29,862	24,974	20,508	23,606	25,739	26,200	26,984
1992/93	25,785	30,684	31,417	29,657	29,571	30,399	30,160	28,086	24,694	24,715	25,934	25,636	28,061
1993/94	27,063	28,851	27,432	26,224	26,043	25,154	25,111	23,663	22,190	22,011	24,508	26,095	25,099
1994/95	25,766												

Source: Association of American Railroads.

Appendix table 24--Rail-freight-rate index for grain, crop years 1981/82-1994/95

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
						December 1984=100							
1981/82	88.5	89.4	89.4	89.4	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	92.1
1982/83	93.0	93.0	93.0	93.0	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.6
1983/84	93.9	94.2	94.2	94.2	98.0	98.0	98.0	98.0	98.0	98.0	98.4	98.4	96.8
1984/85	98.4	100.0	100.0	100.0	100.0	100.0	99.3	99.3	98.7	97.3	96.4	96.3	98.8
1985/86	98.0	98.0	98.0	98.0	98.9	99.0	99.0	99.1	99.2	99.2	99.2	99.2	98.7
1986/87	99.2	98.5	98.5	97.8	98.3	98.3	98.8	98.6	98.5	98.6	98.6	98.5	98.5
1987/88	98.9	99.2	99.1	98.5	101.2	101.2	101.4	102.7	104.1	104.3	106.4	109.3	102.2
1988/89	109.3	108.3	108.5	108.2	109.2	109.2	108.8	108.8	108.8	108.0	108.4	108.4	108.7
1989/90	108.4	108.6	108.7	108.7	109.1	109.1	109.1	109.7	109.7	109.2	109.7	110.5	109.1
1990/91	110.6	111.3	111.3	111.3	111.0	111.0	112.5	112.0	111.2	109.9	110.8	110.8	111.1
1991/92	110.8	111.6	111.3	111.3	111.4	111.6	110.8	110.2	110.5	110.5	110.3	110.3	110.9
1992/93	110.3	113.1	113.1	114.4	114.4	114.4	114.5	114.5	114.2	114.1	114.1	114.0	113.6
1993/94	114.2	115.8	116.0	115.7	116.1	115.6	115.7	115.1	115.1	114.8	114.3	114.3	115.2
1994/95	114.6												

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Appendix table 25--Indexes of animal units, 1975/76-1994/95 1/

Year	Animal units consuming				Grain consuming animal units				
	Grain	High protein	Roughage	Grain & roughage	Dairy	Beef	Pork	Poultry	Other
	Million units								
1975/76	71.6	96.6	96.3	86.5	12.3	25.3	17.5	15.9	0.7
1976/77	73.1	99.4	92.9	85.0	12.2	24.5	19.4	16.3	0.7
1977/78	74.7	100.9	87.7	82.3	12.1	25.5	19.6	16.9	0.7
1978/79	77.2	105.9	84.0	81.0	12.0	24.9	21.7	17.9	0.7
1979/80	78.1	108.6	85.2	82.1	12.0	23.3	23.8	18.2	0.7
1980/81	76.4	107.8	87.8	83.0	12.1	22.6	22.4	18.6	0.7
1981/82	73.0	104.6	88.9	82.5	12.2	21.2	20.3	18.6	0.7
1982/83	75.2	105.4	87.7	82.5	12.4	23.2	20.5	18.3	0.7
1983/84	74.6	105.7	86.7	81.7	12.4	22.5	20.4	18.6	0.7
1984/85	75.2	105.9	83.2	79.7	12.1	23.5	19.8	19.0	0.7
1985/86	74.5	107.1	80.5	77.8	12.5	22.2	19.3	19.8	0.7
1986/87	74.4	110.0	78.3	76.4	11.7	21.4	19.4	21.1	0.7
1987/88	76.8	112.9	76.3	76.1	11.5	22.2	20.8	21.5	0.7
1988/89	77.0	115.0	75.5	75.7	11.4	21.5	21.3	22.0	0.7
1989/90	77.7	117.6	75.5	75.9	11.4	21.8	20.7	23.1	0.7
1990/91	80.3	121.2	75.5	76.9	11.4	23.3	21.0	23.9	0.7
1991/92	81.1	123.9	76.4	77.8	11.1	22.3	22.4	24.6	0.7
1992/93	82.9	126.2	76.6	78.6	11.0	23.5	22.3	25.3	0.7
1993/94	84.1	129.0	77.1	79.3	10.8	23.9	22.4	26.2	0.7
1994/95	85.5	132.5	78.6	80.8	10.8	23.2	23.6	27.1	0.7

1/ Index based upon feed consumed by one dairy cow in 1969-71 feeding years.

Appendix table 26--Feed concentrates, number of animal units, and feed per unit, 1986-93 1/

	1986	1987	1988	1989	1990	1991	1992	1993
				Million metric tons				
Concentrates:								
Corn	118.6	121.9	100.1	111.5	118.4	123.9	134.7	119.7
Sorghum	13.6	14.1	11.8	13.1	10.4	9.5	12.1	12.4
Oats	5.5	4.5	3.3	4.8	3.7	3.3	3.0	3.1
Barley	6.0	5.9	4.2	3.9	4.7	5.0	3.8	6.0
Wheat and rye	11.5	6.0	3.9	7.9	12.6	6.2	4.2	9.7
Oilseed meals	20.0	21.4	19.8	21.9	23.1	23.8	24.5	25.5
Animal protein feeds	3.3	3.2	3.0	3.1	3.0	3.0	3.0	3.2
Grain protein feeds	2.1	2.6	2.3	1.7	0.2	0.8	0.8	1.0
Other byproduct feeds	11.1	10.9	11.0	11.4	12.3	11.7	12.5	12.9
Total	191.7	190.5	159.4	179.4	188.4	187.2	198.6	193.5
Grain-consuming animal units (GCAU's):				Million units				
Dairy cattle	11.7	11.5	11.4	11.4	11.4	11.1	11.0	10.8
Cattle on feed	17.3	18.2	17.5	17.8	19.3	18.3	19.5	19.8
Other cattle	4.2	4.0	4.0	4.0	3.9	4.0	4.0	4.1
Hogs	19.4	20.8	21.3	20.7	21.0	22.4	22.3	22.4
Poultry	21.1	21.5	22.0	23.1	23.9	24.6	25.3	26.2
Other livestock	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Total	74.4	76.7	77.0	77.7	80.3	81.1	82.9	84.1
Concentrates GCAU				Tons per unit				
Four feed grains	1.93	1.91	1.55	1.71	1.71	1.75	1.9	1.7
All concentrates	2.58	2.48	2.07	2.31	2.35	2.31	2.4	2.3

1/ Marketing years, 1992/93 forecast.

Appendix table 27--Processed feeds: Quantity fed, 1985-93 1/ 2/

	1985	1986	1987	1988	1989	1990	1991	1992	1993 3/
	---- 1,000 metric tons ----								
High protein:									
Oilseed meal--									
Soybean 4/	17,318	18,495	19,317	17,833	20,197	20,805	20,873	22,000	22,725
Cottonseed	1,379	1,026	1,442	1,481	1,239	1,470	1,584	1,287	1,284
Linseed	100	115	127	93	126	112	115	96	103
Peanut	159	103	109	147	112	103	156	161	103
Sunflower	313	269	381	293	271	306	450	401	290
Canola	120	204	219	322	342	353	586	592	1,014
Total	19,389	20,212	21,595	20,169	22,287	23,149	23,764	24,538	25,518
Animal proteins--									
Tankage and meat meal	2,540	2,395	2,457	2,328	2,320	2,292	2,305	2,152	2,209
Fishmeal and solubles	464	471	353	265	324	249	233	450	544
Milk products	374	398	411	405	418	416	428	413	413
Total	3,377	3,265	3,221	2,998	3,062	2,957	2,965	3,014	3,166
Grain protein feeds--									
Gluten feed and meal	1,055	1,165	1,484	1,289	218	164	795	796	1,035
Brewers' dried grains	135	146	120	107	108	0	0	0	0
Distillers' dried grains	873	805	1,035	947	1,419	0	0	0	0
Total	2,063	2,116	2,639	2,343	1,744	164	795	796	1,035
Other:									
Wheat millfeeds	5,278	5,714	5,652	5,717	5,617	5,987	6,210	6,300	6,652
Rice millfeeds	503	610	551	615	554	555	530	548	590
Dried and molasses beetpulp	701	645	699	661	758	1,051	791	1,298	1,355
Alfalfa meal	777	589	554	365	300	333	265	284	188
Fats and oils	765	832	826	943	973	999	878	991	1,070
Molasses, inedible	1,887	1,771	1,598	1,593	1,988	2,168	1,723	1,728	1,724
Miscellaneous byproduct feeds	791	895	976	1,107	1,202	1,248	1,297	1,327	1,324
Total	10,702	11,056	10,856	11,000	11,391	12,341	11,694	12,476	12,903
Grand total	35,531	36,649	38,311	36,510	38,484	38,611	39,219	40,823	42,622

NA = Not available.
1/ Year beginning October. 2/ Adjusted for stocks, productions, foreign trade, and nonfeed uses where applicable. 3/ Preliminary.
4/ Includes use in edible soy products and shipments to U.S. territories. 5/ Allowance for hominy feed, oat millfeeds, and screenings.

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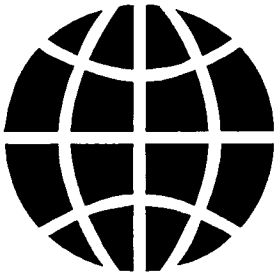
Effects of the Uruguay Round Agreement on U.S. Agricultural Commodities



On December 15, 1993, the United States reached an historic agreement concluding the Uruguay Round of Multilateral Trade Negotiations under the auspices of the General Agreement on Tariffs and Trade (GATT). Benefits arising from the agreement include:

- U.S. farmers will gain from the increase in world income that will arise from the Uruguay Round agreement.
- U.S. agricultural exports are expected to increase by between $1.6 billion and $4.7 billion in 2000 and between $4.7 billion and $8.7 billion in 2005.
- Increased exports mean more export-related jobs, particularly for high-value and value-added products.
- Increased exports will raise farm prices, increase farm income, and lower Government outlays on price and income support programs.
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