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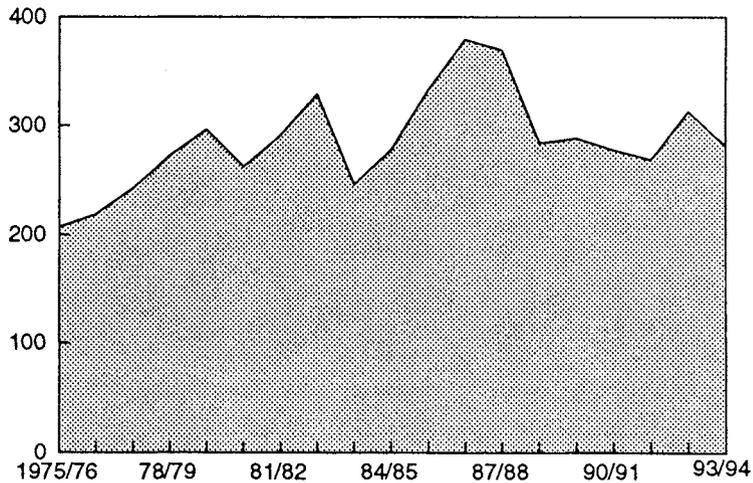
Feed

Situation and Outlook Report

ALBERT R. MANIV
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U.S. Feed Grain Supplies

Million tons



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Summary

Unfavorable Weather Cuts 1993 Feed Grain Output

Excessive rain in States along the upper Mississippi and lower Missouri rivers and drought in Mid-Atlantic and Southeastern States will reduce feed grain production in 1993. Output is forecast at 218.7 million tons, 21 percent below last year's record. Feed grain supplies in 1993/94 are forecast at 284.4 million tons, 9 percent below a year ago as larger carryin stocks partially offset lower production.

Lower feed grain supplies and higher prices will curtail disappearance in 1993/94. Total feed grain use is projected to decline 3 percent to 240.7 million tons. Exports are projected down because of lower import demand, particularly to southern African nations. Lower feed and residual use is expected because of lower supplies and higher prices for feed grains and larger wheat feeding. In contrast, food, seed, and industrial (FSI) uses are forecast to rise due to higher output of fuel ethanol and corn sweeteners.

Corn production in 1993 is forecast to decline 22 percent to 7.4 billion bushels because of lower harvested area and reduced yields. Farmers did not get as much land planted as they had intended, and unfavorable weather is expected to increase crop abandonment. As a result, harvested area is forecast at 64 million acres, 86.8 percent of planted area compared with a 90.6 percent average over the last 3 years. The national-average corn yield is forecast at 116 bushels per acre, 15.4 bushels below last year's record.

Larger carryin stocks will help buffer the smaller crop, as 1993/94 corn supplies are projected down only 9 percent to 9.6 billion bushels. Total disappearance is forecast at 8.18 billion bushels, down 260 million from last year. As a result, ending stocks are expected to drop 35 percent to 1.4 billion bushels. The tightening stocks will boost farm prices in 1993/94, ranging between \$2.15 to \$2.55 per bushel, from \$2.05 to \$2.10 for 1992/93.

Although wet weather has hampered haying operations in many areas this year, all-hay production is forecast at 151 million short tons, up 1 percent from last year.

Supplies of hay for 1993/94 are forecast at 172 million ton, down 3 percent from last year, as stocks on May 1 were down over 7 million from the previous year. Quality of alfalfa hay for dairy operations in many States has been reduced by excessive rain.

Flooding has halted barge traffic on at least part of the upper-Mississippi, Illinois, and Missouri rivers this summer. However, grain shipments have increased on the Ohio River, averaging 366,000 tons per week during the first two weeks of August 1993, 336 percent above the same time in 1992. Rail traffic to the Gulf and Pacific North-

west have also risen. Above-average volume is expected on alternate routes until navigation returns to normal.

Global coarse grain production is projected down 6 percent in 1993/94, due to a sharp decline in the U.S. corn crop. A small gain in foreign coarse grain production is expected. Global consumption is expected to fall slightly, but remain above production, leading to a drawdown in stocks. World coarse grain trade is expected to decline for the third year in a row. In the face of this weak demand, U.S. exports are projected to fall to the lowest since 1985/86.

FEED GRAIN SUMMARY

Year 1/	89/90	90/91	91/92	92/93	93/94	Record prod. 2/ 92/93	Lowest stocks 2/ 75/76	
	TOTAL FEED GRAINS						Million acres	
	Million acres					Million acres		
Planted	106.1	103.4	104.6	108.4	100.4	108.4	122.6	
Harvested	91.0	89.5	91.9	96.1	85.4	96.1	104.7	
Yield (ton/ac)	2.43	2.57	2.38	2.89	2.56	2.89	1.77	
	Million tons					Million tons		
Beg. stocks	65.9	45.5	47.7	34.0	64.1	34.0	21.1	
Production	221.0	230.5	218.4	277.4	218.7	277.4	185.1	
Supply	288.2	277.3	268.2	312.6	284.4	312.6	206.5	
Dom. Disp.	173.0	178.1	184.5	197.1	194.5	197.1	133.7	
FSI	40.3	40.7	42.7	44.0	45.0	44.0	17.9	
Feed/res.	132.7	137.5	141.8	153.1	149.5	153.1	115.8	
Exports	69.7	51.5	49.7	51.4	46.3	51.4	48.8	
End. stocks	45.5	47.7	34.0	64.1	43.7	64.1	23.9	
SECTOR	Corn		Sorghum		Barley		Oats	
Year 1/	92/93	93/94	92/93	93/94	92/93	93/94	92/93	93/94
	Million acres							
Planted	79.3	73.7	13.3	10.7	7.8	7.9	8.0	8.1
Harvested	72.1	64.0	12.2	9.7	7.3	7.5	4.5	4.1
Yield (bu/ac)	131.4	116.0	72.8	65.9	62.4	61.9	65.6	60.7
	Million bushels							
Beg. stocks	1,100	2,150	53	180	129	152	128	113
Production	9,479	7,423	884	642	456	467	295	250
Supply	10,585	9,583	937	822	596	638	477	428
Dom. disp.	6,760	6,700	483	433	364	390	358	330
FSI	1,510	1,550	8	8	165	165	125	125
Feed/res.	5,250	5,150	475	425	199	225	233	205
Exports	1,675	1,475	275	275	80	80	6	5
End. stocks	2,150	1,408	180	115	152	168	113	93
Stocks-use ratio, %	25	17	24	16	34	36	31	28
Avg. farm price, \$/bu	2.05-2.10	2.15-2.55	1.85-1.90	1.95-2.35	2.04	1.95-2.35	1.32	1.25-1.65

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

Feed Grain Production To Plummet From Flood and Drought

Feed grain output for 1993/94 is forecast at 218.7 million tons, off 21 percent from last year's record output and the lowest since 1988.

Lower Area and Yields Cause Reduced Output

Area planted to feed grains in 1993/94 declined to 100 million acres, down 7 percent from a year earlier, due in part, to a higher set-aside requirement for corn producers and a wet spring that limited fieldwork days. Excessive moisture, including severe flooding along the upper Mississippi and lower Missouri Rivers, and drought in the Southeast and Mid-Atlantic States have led to increased abandonment and reduced yield prospects for 1993 feed grain crops. Yields are forecast to average 2.56 tons per acre, 11 percent below last year's record. As a result, feed grain production is forecast at 218.7 million tons, down nearly 60 million tons from the 1992 record of 277.4 million.

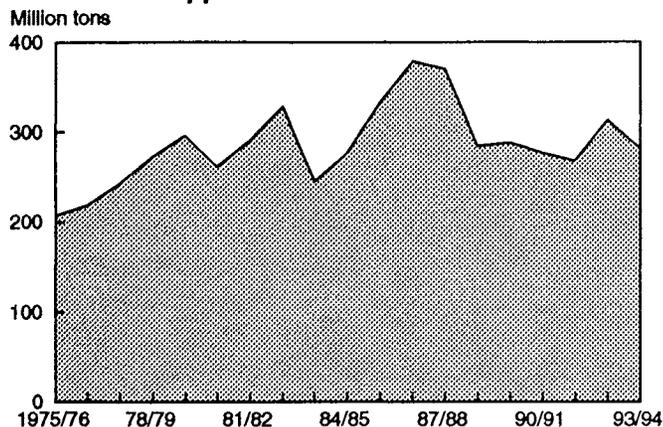
Lower Feed Grain Supplies To Boost Prices

Relatively large carryin feed grain stocks of 64.1 million tons will help buffer the impact of the lower 1993 output. Feed grain supplies for 1993/94 are forecast at 284.4 million tons, off 9 percent from last year, but still larger than either 1990/91 or 1991/92 supplies. The prospect of smaller supplies for 1993/94 have been reflected in rising futures prices as contract prices for December corn on the Chicago Board of Trade climbed from a low of \$2.26 per bushel on June 14 to a high of \$2.61 per bushel on July 9. However, conflicting reports of the extent of the damage and worries about demand weakened prices, and during the first week in August, December corn futures traded between \$2.40 and \$2.48 per bushel. Even USDA's forecast of less than expected harvested areas and weekly indications in the *Crop Progress* report that crop maturity continues to lag well behind normal, have done little to boost prices.

Feed Grain Use Reduced by Supplies and Prices

Lower feed grain supplies and higher prices are expected to result in lower use in 1993/94. Total feed grain disappearance is projected to decline nearly 3 percent to 240.7

Figure 1
Feed Grain Supplies



million tons. Exports are projected to decline 5.1 million tons due to lower global import demand, particularly from southern African nations. Larger quantities of wheat are expected to be fed due to substantial quantities of late harvested, low quality wheat and lower wheat prices, relative to corn, than a year ago. Feed and residual use of feed grains is projected to drop by 3.6 million tons to 149.5 million. In contrast, food, seed, and industrial (FSI) uses of feed grains are forecast to rise by 1 million tons because of increased use of corn for ethanol and corn sweetener production.

Ending stocks of feed grains for 1993/94 are expected to drop from carryin levels as production declines more than use. Ending stocks are projected at just under 44 million tons, down 32 percent from a year earlier. Season-average corn prices received by farmers are forecast between \$2.15 and \$2.55 per bushel for 1993/94, up from the 1992/93 preliminary estimate of \$2.05 - \$2.10 per bushel. [Thomas F. Tice, (202) 219-0840]

Corn Production in 1993/94 To Drop 22 Percent to 7.4 Billion Bushels

Drought in Southeastern and Mid-Atlantic States and excessive moisture and flooding in some Midwest and Plains States have combined to reduce both yield and harvested area from early season projections. Corn yields are forecast to average 116 bushels per acre, down 5.5 percent from initial projections, while area harvested is down 7.6 percent to 64.0 million acres.

Prospects for corn production in 1993/94 have diminished considerably from last year's record harvest of 9.5 billion bushels. A wet spring delayed the start of planting and June rains prevented some plantings. The August *Crop Production* report indicated 73.7 million acres of planted corn, compared with March intentions of 76.5 million and 79.3 million last year.

Excessive rains in the upper Mississippi Valley and the lower Missouri River Basin and drought in Southeastern and Mid-Atlantic States have reduced the proportion of planted area intended for harvest. The August *Crop Production* report indicates only 64.0 million acres of harvested corn for grain. This is 86.8 percent of the planted area, compared to initial season forecasts of 90.6 percent. Most of the normal difference between planted acres and those harvested for grain is corn planted for silage. Normally, there is only a very small percentage of the crop that is abandoned. However, most of this year's drop in the harvested-to-planted ratio from the initial projections is additional abandonment due to the adverse weather.

In addition to lower area harvested in 1993/94, the unfavorable growing conditions in many areas are expected to reduce average corn yields. Of the 17 major corn producing States, only Colorado, Michigan, and Ohio report crop conditions better than a year ago. The national-average corn yield for 1993/94 is forecast at 116.0 bushels per acre, down 15.4 bushels from last year's record. The lower yield and harvested area combine for a 22-percent reduction in corn production, which is forecast at 7.4 billion bushels.

In addition to the decline this year in the condition of the corn crop relative to last year, maturation is also slower. As of August 15, 1993, 88 percent of the corn was reported silking in the 17 major producing States, compared with 95 percent a year ago, and the 5-year average of 97 percent. Only 31 percent of the corn in these States were in the dough stage, compared with 40 percent a year ago and the 5-year average of 56 percent.

Lower Supplies in 1993/94 in Spite of Large Carryin Stocks

The current forecast for 1993/94 points to relatively large carryin stocks of 2.15 billion bushels. However, the sharply lower corn crop in 1993 will drop corn supplies to 9.6 billion bushels, 1 billion below 1992/93 supplies.

Corn Use and Stocks To Fall in 1993/94

The sharp decline in corn supplies will result in lower utilization in 1993/94. Total corn disappearance is forecast at 8.18 billion bushels, down 260 million from a year earlier. Exports of corn are forecast to drop 200 million bushels to 1.475 million, because of lower demand, especially by southern African and East European nations. Total domestic use is also forecast to fall as lower supplies and higher corn prices is expected to reduce feed use to 5.15 billion bushels. A modest increase in FSI uses of nearly 40 million bushels will partly offset lower feed and residual use.

Figure 2
Corn Supplies To Decline in 1993/94
Billion bushels

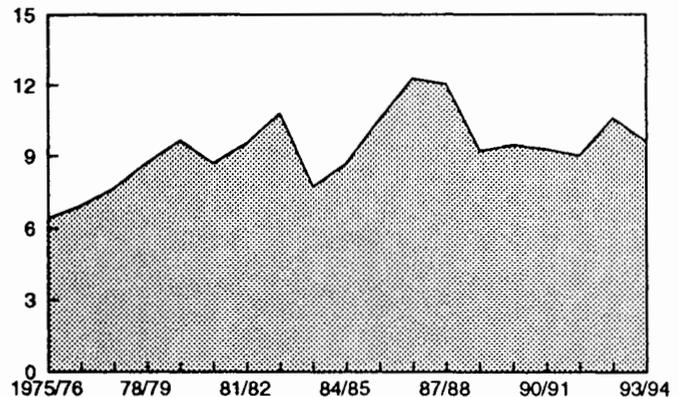


Figure 3
Corn Price and Stocks-to-Use Ratio

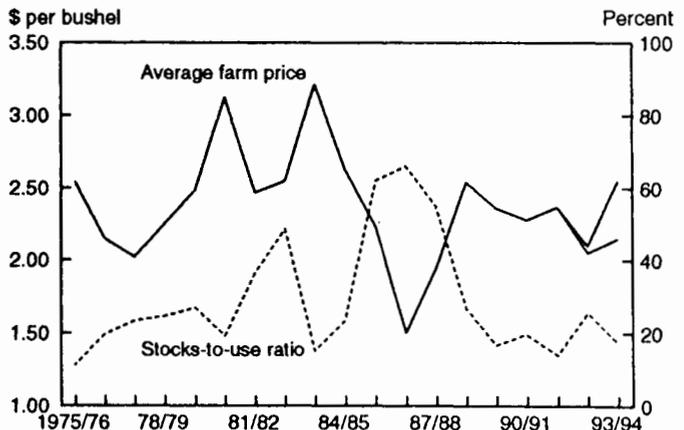


Table 1--Corn supply, disappearance, and stocks,
March-May

Item	1991/92	1992/93
Million bushels		
Supply:		
Beginning stocks, March 1:	4,561.0	5,678.2
CCC	199.2	86.8
FOR	0.6	0.0
Loan	835.0	1,362.3
Free	3,526.2	4,229.1
Imports	5.4	2.0
Total	4,566.4	5,680.2
Disappearance:		
Food, seed, & industrial	380.9	388.4
Exports	371.5	411.3
Feed and residual	1,075.5	1,068.0
Total	1,827.8	1,970.8
Ending stocks June 1:		
CCC	147.2	64.6
FOR	0.2	0.0
Loan	589.3	1,031.1
Free	2,001.9	2,613.7
Total	2,738.6	3,709.4

Totals might not add because of rounding.

Because total use of corn in 1993/94 is projected to exceed production, ending stocks are expected to fall. Ending stocks are projected at 1.4 billion bushels, down 34.5 per-

cent below carryin stocks and only 17.2 percent of total use. The dramatic drop in carryout stocks will support farm prices in 1993/94, which are forecast to average between \$2.15 and \$2.55 per bushel, up from the preliminary estimate of \$2.05 - \$2.10 per bushel for 1992/93.

March-May Corn Disappearance Continues at Record Pace

Total corn disappearance during the first two quarters of the 1992/93 marketing year were at record levels. However, with the record crop, the beginning stocks for the third quarter at 5.68 billion bushels were still well above a year earlier. Total disappearance in the third quarter of 1.97 billion bushels just eclipsed the previous record set in 1989/90. Both FSI and feed and residual uses set March-May quarterly records. Total FSI use of 403.4 million bushels is 15.0 million bushels above a year earlier. Feed and residual use of 1,156.1 million is up 88.1 million from a year earlier. However, March-May exports of 411.3 million bushels were 40 million above a year earlier, they were well off the record of 614 million set in 1981.

Even with record corn use during the March-May quarter, stocks at the end of the quarter were 3.71 billion, more than 1 billion above a year earlier. Prices paid to farmers during the quarter averaged just \$2.13 per bushel, down from \$2.49 a year earlier.

[Thomas F. Tice, (202) 219-0840]

Sorghum Production Forecast To Decline 30 Percent

Lower expected harvested sorghum area, down 20 percent, and average yield, off 9 percent, combine to reduce forecast production by 30 percent to 642 million bushels.

Growing conditions in the major sorghum producing States have been extremely varied. Rainfall in Kansas and Nebraska was 200-400 percent above average during July, and only 25-50 percent of normal over large parts of the Southern Plains and Southeast. Both conditions have affected potential sorghum output negatively. The extreme wetness in Kansas and Missouri caused lower plantings than forecast in June. In addition, the flooding in Missouri has further reduced the potential harvested area. Nationally, harvested area is forecast at 9.7 million acres, down over 300,000 acres below the June estimate. Also, yield prospects are well below last year's record. The national average sorghum yield is forecast at 65.9 bushels per acre, 9.5 percent below last year. As a result, the August forecast of sorghum production of 642 million bushels is down 27 percent from last year.

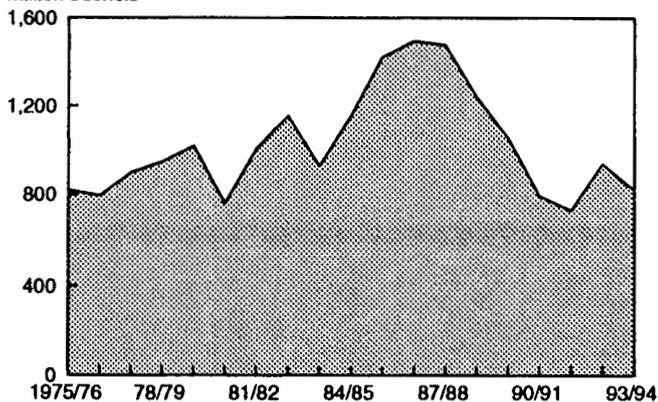
Lower Production and Use

Carryin stocks of grain sorghum for 1993/94 of 180 million bushels are over three times that of the record low of a year ago. Never the less, sorghum supplies for 1993/94 are projected at 822 million bushels, down over 100 million bushels from a year ago. Therefore, total disappearance of grain sorghum is expected to decline. FSI use of sorghum is projected to remain near last year's level of 7.5 million bushels, and continued strong export demand from Mexico and Japan is expected to stabilize export shipments at 275 million bushels. However, lower supplies and higher prices are expected to discourage feeding, which is projected at 425 million bushels, down 50 million from the 1992/93 forecast. In total, use of grain sorghum is expected to fall to 708 million, 7 percent below a year ago.

Figure 4

Grain Sorghum Supplies To Decline in 1993/94

Million bushels



Stocks Decline and Prices Rise

Although total disappearance of grain sorghum is projected below the previous year, the sharp drop in production will cause ending stocks to drop below the year earlier. Ending stocks of grain sorghum are projected at 115 million bushels, down 36 percent from a year earlier. Tighter sorghum stocks and higher corn prices are expected to boost sorghum prices in 1993/94. Season-average farm prices are forecast to average between \$1.95 and \$2.35 per bushel for 1993/94, compared with a preliminary estimate of \$1.85 to \$1.90 for 1992/93.

March-May 1993 Grain Sorghum Use Higher

Sorghum use during the current marketing year (1992/93) continued at a strong pace during the March-May quarter. Total disappearance is estimated at 169.9 million bushels, up nearly 30 million from a year earlier. The larger disappearance was due to heavy feed and residual use of 80.5 million bushels, compared to just 33 million a year earlier. In contrast, FSI use and exports were down during the quarter. Exports during March-May were off 17 percent from a year earlier to 87.3 million bushels, largely because of lower shipments to Mexico.

Table 2--Grain sorghum supply, disappearance, and stocks, March-May

Item	1991/92	1992/93
Million bushels		
Supply:		
Beginning stocks, March 1:	251.2	434.4
CCC	19.6	4.0
FOR	0.0	0.0
Loan	11.4	21.2
Free	220.2	409.2
Imports	0.0	0.0
Total	251.2	434.4
Disappearance:		
Food, seed, & industrial	2.9	2.1
Exports	105.0	87.3
Feed and residual	35.9	80.5
Total	140.9	169.9
Ending stocks June 1:		
CCC	14.3	3.9
FOR	0.0	0.0
Loan	5.7	28.2
Free	90.4	232.4
Total	110.4	264.5

Totals might not add because of rounding.

Larger feed and residual use of sorghum was encouraged by larger supplies, compared to year earlier levels, as well as lower sorghum prices relative to corn. Sorghum farm prices averaged 93 percent of corn farm prices during

March-May 1993 compared to 95 percent a year earlier. Sorghum farm prices averaged \$1.89 per bushel during March-May 1993, compared with \$2.41 a year earlier. [Thomas F. Tice, (202) 219-0840]

Barley Supplies To Expand in 1993/94; Slower Use Allows Gain in Ending Stocks

Larger 1993/94 carryin stocks plus a small gain in production will increase barley supplies 7 percent to 638 million bushels. Barley disappearance is forecast to grow less than 6 percent, allowing carryout stocks to increase to 168 million bushels, up 10 percent from a year earlier.

For the 1993/94 barley crop year, a modest increase in the number of barley harvested acres is likely to offset a slight decline in forecast average barley yield. As a result, forecast production of 467 million bushels is marginally above the outturn of last year. Some plantings this year were delayed as a result of wet conditions in major barley producing States. In addition, generally cool, wet weather in June and July delayed crop development. However, the cool, wet conditions are expected to boost average barley yields of 61.9 bushels per acre to just below last year's record.

In North Dakota, production is forecast down slightly from 1992 to 171 million bushels, which is 37 percent of the national crop. Yields are projected to fall from 65 bushels per acre in 1992/93 to 58 bushels this year because of excessive moisture in some parts of the State. This decline outweighs an anticipated 300,000-acre increase in the harvested acreage. Other major barley producing States include Montana and Idaho, where production is forecast at 67.2 million and 57.0 million bushels, respectively. In contrast to North Dakota, the Montana barley crop grew under favorable moisture in July, and yields are expected to reach 56 bushels per acre, up 27 percent from last year.

Carryin stocks for 1993/94 were up 18 percent from a year earlier to 152 million bushels. This, coupled with relatively steady outturn and expanded imports, is expected to increase forecast barley supplies to 638 million bushels. This is up moderately from the 596 million bushels in 1992/93 and the highest since 1987/88.

The relatively large forecast supplies will allow use to expand in 1993/94. Use for the year is projected at 470 million bushels, an increase of 6 percent from a year ago. All of the increase is expected to be in feed and residual use, which is projected at 225 million bushels, almost 26 million above 1992/93. Exports and FSI uses are expected to remain unchanged at 80 million and 165 million bushels, respectively.

Ending stocks are forecast to expand to 168 million bushels, as supplies grow more than use. Farmers' barley

prices are forecast to average \$1.95-\$2.35 per bushel in 1993/94, compared with \$2.04 in 1992/93.

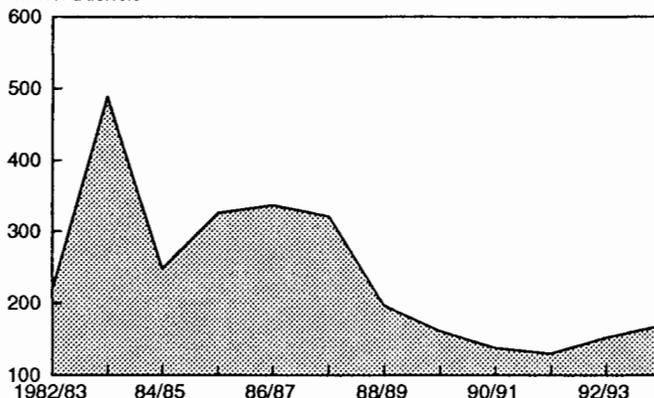
Farmers' malting barley prices in 1992/93 averaged \$2.30 per bushel, a decline of 19 cents per bushel from the previous year. Feed barley prices received by farmers averaged \$1.82 per bushel, down only 5 cents from 1991/92. As a result, the gap between malting and feed barley narrowed to 48 cents per bushel this year compared to 62 cents for 1991/92.

March-May 1993 Barley Use Stabilizes

Barley stocks in all positions on March 1, 1993, totaled 243.9 million bushels, almost 30 million above the same time last year. Purchases of barley from other countries slid during the final quarter (March-May) to 1.9 million bushels, down from 7.2 million in the same quarter a year earlier. Thus, total supplies during the quarter were about 10 percent higher than in 1991/92 reaching almost 246 million bushels and the highest since 1989/90.

During the March-May 1993 quarter, over 76 million bushels of barley were used domestically, up slightly from a year earlier. March-May barley exports were sluggish at

Figure 5
Barley Ending Stocks Up in 1993/94
Million Bushels



only 18 million bushels, down almost 2 million from the same time in 1991/92. As a result, total use of barley during the quarter was estimated at 94.1 million bushels,

about the same as a year earlier.

[Thomas F. Tice and Jim Cole, (202) 219-0840]

Oats Production in 1993/94 Forecast To Decline

An 8.4 percent reduction in harvested area and a 7.5 percent lower yield are forecast to reduce 1993/94 oats output 15 percent to 250 million bushels.

Crop prospects for 1993/94 oats are down from last year's outturn, but slightly higher than 1991/92. Total production is forecast at 250 million bushels, 45 million bushels below the 1992/93 crop, which was bolstered by record yields. Harvested oats area is forecast at 4.1 million acres, down 39,000 from the June forecast because of flooding and excess moisture in Iowa, Missouri, and Nebraska. This would be the lowest harvested area on record. National-average oats yields are forecast at 60.7 bushels per acre, nearly 5 bushels below last year's record, but still third highest on record. While delayed plantings increase the potential for damage from earlier-than-normal frost, oats have a relatively short growing season, and therefore, are threatened less than other grains.

In recent years, South Dakota has harvested more oats acres than any other State. However, in 1993/94 that distinction is shared with Wisconsin, each with forecast area of 560,000 acres. While forecast harvested acreage for Wisconsin is little changed from a year earlier, South Dakota's forecast area is down 14 percent from the 650,000 acres harvested last year. North Dakota, Minnesota, and Iowa are also major oats producing States, with little or no change in year-to-year acreage estimates.

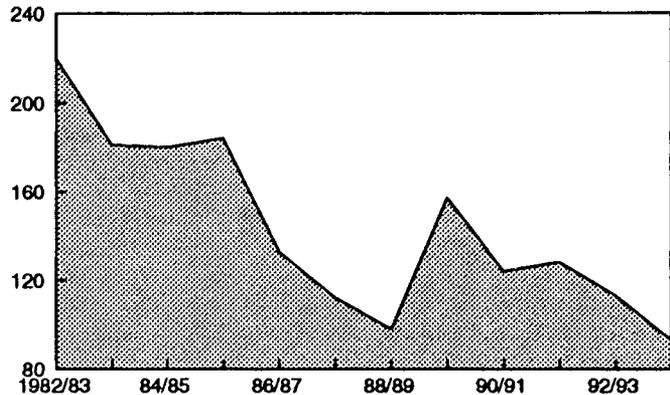
Yield prospects for 1993/94 are down from a year-earlier for most major States (producing 10 million bushels or more), with Iowa's year-to-year drop of 22 bushels per acre being the largest. Yield declines of 5 to 10 bushels per acre are forecast for Minnesota, Ohio, and South Dakota, while Wisconsin is down 2 bushels per acre. Excessive rainfall and associated disease problems are largely responsible for the lower forecast yields. In contrast, North Dakota prospects have improved from last year, with an average yield forecast of 72 bushels per acre, up from 68 bushels last year.

Oats carryin stocks for 1993/94, at 113 million bushels, were very low, down almost 15 million bushels from the year earlier, and the lowest since 1989/90. Imports are forecast at 65 million bushels, up 10 million from last

Figure 6

Oats Ending Stocks To Decline in 1993/94

Million Bushels



year, partially offsetting the lower carryin. However, with the lower crop and carryin stocks, oats supplies are forecast to decline over 10 percent to 428 million bushels.

Lower oats supplies will cause total use during 1993/94 to decline to 335 million bushels. Reduced feed and residual use is expected to account for most of the lower disappearance. Feed and residual use is forecast at 205 million bushels, down 12 percent from last year. FSI use is forecast at 125 million bushels, unchanged from 1992/93. Oats exports are forecast to remain near year earlier at 5 million bushels.

Ending stocks for 1993/94 are forecast to be a record low 93 million bushels, 5 million below the 1988 record. As a result, the stocks-to-use ratio in 1993/94 is expected to fall to 28 percent, down 3 percentage points from last year and 14 percent from 1991/92. With stronger corn prices forecast this year and tighter oats stocks, prospects for higher oats prices are good. The average farm price for oats is forecast at \$1.25 to \$1.65 per bushel, compared with \$1.32 in 1992/93.

[Thomas F. Tice and Jim Cole, (202) 219-0840]

Hay Production Forecast To Increase: Regional Weather Problems Play Havoc with Hay Crop

Hay production of all types for 1993/94 is forecast at 150.8 million short tons, up 1 percent from last year. Almost all of the higher production is the result of an increase in acres harvested, up nearly 1 percent from the 59.6 million harvested in 1992.

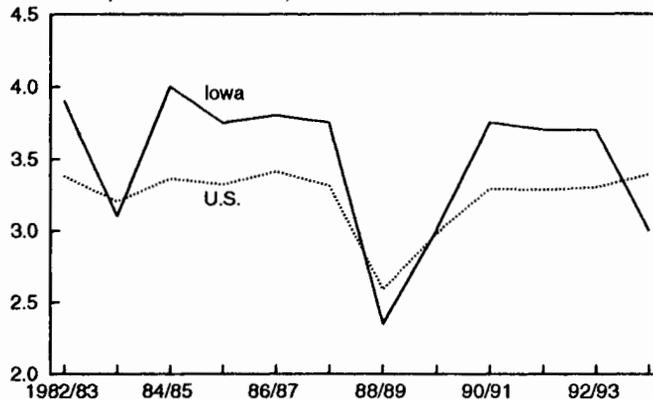
Production of alfalfa hay and alfalfa mixtures is forecast to total 80.9 million tons, up 2 percent from the 79.7 million in 1992. This rise is from a 3 percent increase in yield, because harvested acreage is forecast down 1 percent from last year at 23.8 million acres. Production of all other hay in 1993 is forecast at 69.9 million tons, up nearly 1 percent from the 69.5 million in 1992. The increase is the result of an expansion in acres harvested, up 2 percent from the 35.4 million in 1992. Yields of other hay in 1993 are forecast at 1.93 tons per acre, down nearly 2 percent from 1992.

Weather in 1993 has not been ideal for hay harvesting in many areas. Excess moisture and continual rain in some States have, at a minimum, reduced quality and possibly yield if farmers were prevented from baling the hay. If farmers cannot cut hay at the proper stage of plant maturity, the plant will become more woody, less nutritious, and less desirable by forage consuming livestock. Once the hay is cut, rain on it before baling lowers nutrition because the hay must be turned to dry, resulting in leaf shatter and loss. In addition, continual rain and or very high humidity would result in the crop rotting on the ground before farmers can bale it. At the other extreme, dry conditions have reduced forage growth resulting in fewer cuttings this year and reducing yield per acre.

Very little data are available to document these problems, however, State crop conditions reported in the *Weekly Weather and Crop Bulletin* in late May (May 25 and June 2) indicated that alfalfa cutting was behind normal, as was the case for all crops because of the cool spring. Weekly Kansas hay reports in the early spring reported rain delays and lower quality, which may explain the forecast yield of 2.46 tons of all hay, down from 2.78 in 1992. Excessive moisture is probably responsible for yield losses in Iowa, Minnesota, and Wisconsin. Also, drought is likely cutting the yields of all hay in Alabama, Georgia, North Carolina, South Carolina, Tennessee, Texas, and Virginia.

Because of these weather problems, haying and grazing restrictions have been relaxed on Conservation Reserve Program (CRP) and Acreage Conservation Reserve (ACR) acres in counties that requested and are in disaster affected areas. Farmers may still have problems harvesting hay in the flooded areas because rains are continuing, making haying difficult. In any case, the August forecast of acres harvested for hay, yield, and production may be changed more

Figure 7
Floods Cause Iowa Hay Yields To Plummet
Short tons per acre



than usual because of changes in haying and grazing restrictions.

During the first quarter of the 1993/94 (May-July) hay marketing year, prices received by farmers for all hay averaged \$81.3 per ton, up \$8.3 from last year. Prices have been stronger this year because of low carryin stocks and the spring rains, which raised questions of potential supplies. May 1 carryin stocks for hay, at 21.2 million tons, were the lowest since 1989/90. Total supplies in 1993/94 are forecast to total 172.0 million tons, down from 177.7 in 1992/93.

The number of RCAU's is forecast at 78.1 million for 1993/94, an increase of over 1 million from 1992/93. The primary cause of the expansion in the RCAU's is increased cattle and calves. The cattle herd on July 1, 1993, was 1 percent above last year, continuing the expansion begun in 1990. With RCAU's forecast higher and hay supplies lower, the supply per RCAU in 1993/94 is forecast to decline to 2.20 tons, down from 2.32 in 1992/93. For comparison, reduced supplies in 1988/89 dropped the supply per RCAU to only 2.03 tons.

Hay prices for the 1993/94 marketing year are likely to remain above last year as a result of low beginning inventories, and an increase in the quantity demanded. Hay prices may also be strengthened because, in dairy areas with hay harvesting problems, silage crops appear to be of lower quality than last year.

[Allen Baker and Jim Cole, (202) 219-0840]

Feed and Residual Use of Feed Grains Forecast Down 2 Percent From 1992/93

With larger supplies of feed-quality wheat in 1993/94 (September-August), feed and residual use of feed grains and wheat are expected to decline less than 1 percent from 1992/93.

Feed and residual use of feed grains (corn, sorghum, barley, and oats) in 1993/94 (September-August) is projected to be down 2 percent to 149.3 million metric tons. Increased numbers of livestock in 1993/94 are expected to keep feed demand strong, but increased corn prices may moderate feed use. However, rain and other weather problems have increased quantities of low-quality wheat available. Wheat feeding is expected to be significantly above the previous 2 years. Feed and residual use of feed grains and wheat in 1993/94 could total 158.8 million metric tons, down from 1992/93's forecast 159.2 million.

The index of grain-consuming animal units (GCAU's) in 1993/94 is projected to be up 1 percent from 1992/93, which was 3 percent above 1991/92. The expected increase in the 1993/94 GCAU index is caused by a 5-percent rise in broiler units, and a 1-percent rise in hogs, turkeys, and cattle on feed. The continuing decline in dairy numbers projected for next year lowered the dairy portion of the index.

A fractional increase in the tons of corn, sorghum, barley, oats and wheat used for feed and residual divided by the number of GCAU's may indicate lower quality feed grains. In 1992/93, 1.90 tons per GCAU are expected to be used, up from 1.82 tons in 1991/92. The tons of grains used in feed and residual have varied between 1975/76 and 1993/94 from a high of 2.08 tons per GCAU in 1986/87 to a low of 1.60 tons in 1988/89 when drought sent grain prices sharply higher.

Although a decline in dairy cow numbers is projected for 1993/94, feed use is expected to rise along with milk pro-

duction. The number of dairy cows on farms during April-June 1993 was 1 percent less than a year earlier, but milk per cow was up 2 percent. Thus, milk production for the second quarter was 1 percent higher. The grain and other concentrates fed per cow on July 1 were the same as last year at 17.6 pounds.

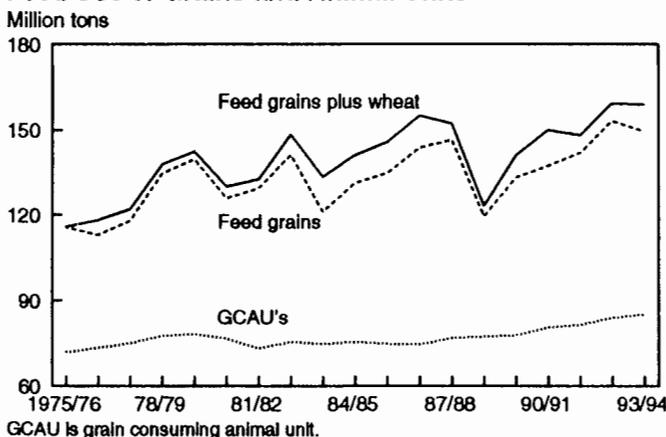
Milk production in 1992/93 is expected to be about the same as in 1991/92, even though there was one extra day's production in 1991/92. In 1993/94, milk production is projected to be up 1.9 percent, even with fewer cows and increased feed costs. However, producers probably will have to boost concentrate feeding, principally protein meal, if this year's hay is as low in quality as some have reported.

Cattle-on-feed inventories on January 1, April 1, and July 1 have been 7 to 8 percent above last year. This is the result of large fall placements and inclement weather that slowed rates of gain that led to marketings much lower than expected. Cattle on feed for the remainder of 1993 are expected to remain above last year, even though placements may not be as large. Yearling cattle outside feedlots on July 1 were down 2 percent from last year, but calf supply was up 1 percent. Feed demand in 1992/93 has likely been up from last year, because of the larger numbers of cattle in feedlots. If the preliminary calf crop estimate of July 1 is realized, the number of cattle placed on feed likely will rise in 1993/94 from the previous year. Thus feed demand is expected to remain strong, but feeding margins may narrow with higher grain prices.

Feed demand by the poultry sector is expected to continue strong in 1993/94. In 1992/93, broiler production will likely be up 6 percent from last year, as increased numbers and heavier weights boost production. Even though the hot weather in the Southeast this summer has caused some problems, production is projected to be up from last year. Broiler pullet chick placements for hatchery supply flocks have been above year-earlier levels, suggesting that producers are expecting to increase production in 1993/94. Broiler production in 1993/94 is projected to be up 5 percent from the projected 1992/93 production. Thus, feed demand by the broiler sector should remain strong through 1993/94.

Turkey production in 1992/93 is expected to increase 2 percent from the year earlier. Returns to producers have been squeezed mainly from increased supplies of competing meats, primarily pork, causing a slowing in turkey produc-

Figure 8
Feed Use of Grains and Animal Units



tion. With continued large supplies of processing meats expected in 1993/94, turkey production is projected to increase 1 percent from the forecast for 1992/93. Feed demand by the turkey sector, while larger than last year, will not be up as much as some sectors. Higher prices for concentrate feeds will also lower returns and help discourage production in 1993/94.

In 1992/93, egg production is projected to increase 1 percent from 1991/92. Lower feed prices so far this year have encouraged increased production, and the egg-type hatch was up 2 percent in January-June 1993 from a year earlier. Increased pullets, plus a larger broiler hatchery supply flock, is expected to result in another 1-percent increase in egg production, even with increased grain costs.

Thus feed demand by the egg sector will likely remain strong through 1993/94.

As of June 1, 1993, U.S. hog producers reported intentions to farrow 17,000 more sows in June-November 1993 than they did in 1992. This increase in farrowings combined with more pigs per litter is expected to result in a larger June-November pig crop. Returns in January-August have remained above cash costs and producers likely will boost farrowings as indicated. Breeding is now taking place for December 1993-May 1994 farrowings. Returns in December-May will impact on 1995. Thus, feed demand should remain above last year for the hog sector.

[Allen Baker, (202) 219-0840]

FSI Use of Corn Expected To Account for 19 Percent of Total Corn Use in 1993/94

Led by increases in corn used for production of sweeteners and fuel alcohol, FSI uses of corn in 1992/93 are estimated up 4 percent from last year.

FSI use of corn in 1992/93 (September-August) is expected to total 1,510 million bushels, up 4 percent from last year. The biggest increases are expected to be in corn used for fuel alcohol and corn sweeteners. FSI use represents 17.9 percent of estimated total corn disappearance in 1992/93, down from 18.4 percent in 1991/92. Alternatively, FSI use in 1992/93 is expected to take 14 percent of the total corn supply, down from 16 percent in 1991/92.

During 1993/94, FSI use of corn is projected to increase 3 percent, mainly on the strength of expected increases in fuel alcohol production. In addition, the continued expansion in economic activity, though slow, is projected to increase the use of other products from the wet corn milling sector. Based on the expected increase, FSI could represent 19 percent of total forecast disappearance and 16 percent of total projected supply.

High fructose corn syrup (HFCS) production in 1992/93 will likely use 410 million bushels of corn, up 5 percent from the 392 million bushels last year. Even though some sections of the country have been cool, other sections have been hot and dry, helping to stimulate demand for soft drinks. Corn used to produce HFCS in the first three quarters of 1992/93 was 4 percent higher than a year ago. June-August corn use for HFCS is projected to increase from last year and result in a yearly increase of 5 percent. In 1993/94, HFCS use is expected to increase 2 percent from the forecast use in 1992/93. A return to more normal weather patterns and population growth is expected to account for an increase in HFCS use.

Use of corn for glucose and dextrose production in 1992/93 is forecast to increase 3 percent from the 210 million bushels in 1991/92. Through the first three quarters of 1992/93, corn use was up 2 percent, as some users shifted from glucose and dextrose to HFCS. However, in the June-August period, a seasonal pickup in use is expected to result in a 3-percent gain for the year. A continuation in the growth of glucose and dextrose use is forecast to result in a 2-percent increase in corn use in 1993/94.

In 1992/93, corn use in starch production may decline 1 percent from the 237 million bushels used in 1991/92. During September 1992-May 1993, corn used to produce starch was down 1 percent from the same period a year earlier. Much of the decline appears to have been in paper products. With the economy continuing to grow, and interest rates continuing low, demand for starch is projected to increase 2 percent from the 1992/93 forecast of 235 million bushels.

Production of alcohol for fuel use in September 1992-May 1993 was up 8 percent from a year earlier. The increase was due to the winter oxygenate program effective in 1992, when alcohol used relative to MTBE was increased due to tax incentives from Federal and State governments. Additional alcohol capacity brought on line to meet the winter demand has kept corn use up, even after the winter program ended. As a result, corn use to produce fuel alcohol in 1992/93 is expected to increase 8 percent from 398 million bushels in 1991/92. Alcohol producers are planning on an increase in alcohol demand when the reformu-

Table 3--Corn: Food, seed, and industrial use, 1980/81-1993/94 1/

Year	Glucose and dextrose		Starch	-----Alcohol-----		Cereals & other products	Seed	Total
	HFCS			Fuel	Beverage			
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	410	215	235	430	83	118	19	1,510
1993/94	420	220	240	450	83	118	19	1,550

1/ Marketing year beginning September 1.

Figure 9

Corn and Corn Milling Byproduct Values

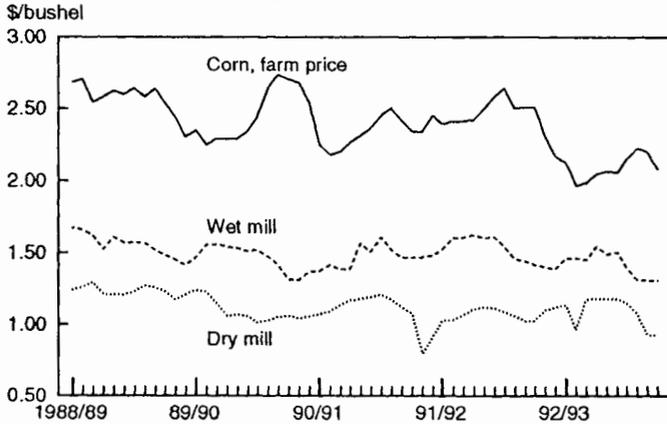
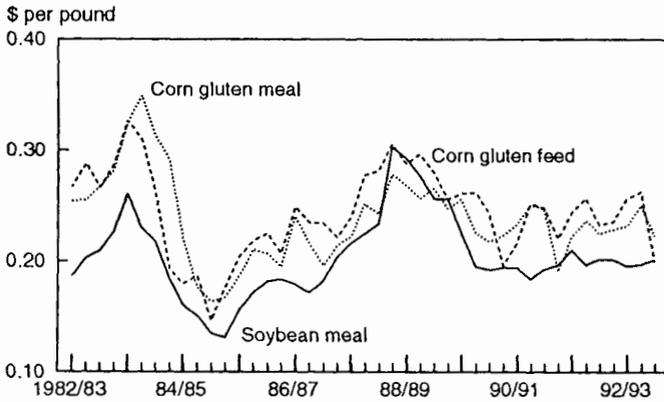


Figure 10

Protein Feed Prices



Prices are in dollars per pound of protein.

lated gasoline requirements take effect on January 1, 1995. Accordingly, alcohol producers are adding to capacity, which should increase corn use in 1993/94. Corn use in 1993/94 is expected to expand 5 percent from the projected 430 million bushels in 1992/93.

Net corn costs for alcohol producers are expected to rise in 1993/94 as corn supplies tighten and prices rise. Corn costs are calculated using prices reported by *USDA Grain Market News* for Number 2 corn in Central Illinois and do not reflect the cost of transporting the corn to the ethanol production facilities. Values per bushel of corn for milling byproducts are calculated by using reported prices for corn gluten feed and meal, corn oil, and distillers' dried grains. Price changes for these byproducts will depend on prices of competing protein and energy sources.

Corn used to produce beverage alcohol in 1992/93 is expected to be up 2 percent from a year earlier, reflecting the stronger economy and population growth. However, during September 1992-March 1993, corn and corn products used in distilled spirits and beer were below last year. Use will likely pick up seasonally, especially for beer, for the summer. Beverage use of corn for 1993/94 will likely about equal use in 1992/93.

In 1992/93, corn use in cereals and other products is expected to increase 1 percent from a year earlier, reflecting the increase in population. Similarly, use in 1993/94 may increase 1 percent from the projected 1992/93 level. [Allen Baker, (202) 219-0840]

Receding Flood Waters To Restore Water Access to Export Markets

Supply of transportation equipment will be adequate for harvest needs.

Demand for Rail Service Projected Up

Total use of grain and soybeans is projected down more than 3 percent from 1992/93. Domestic consumption, however, is projected up 1.9 million metric tons, suggesting increased demand for rail service during 1993/94.

Exports of total grains and soybeans are projected down nearly 14 million metric tons, 14 percent, with corn and soybean exports down 5 million and 3.3 million metric tons, respectively. These reductions are expected to reduce demand for barge service. Drought-induced short crops in the Southeastern States, will increase shipments of feed grains, soybeans and soybean meal to livestock and poultry producers in these States. Corn production in these States is forecast to be 205 million bushels below 1992/93, resulting in increased demand for both rail and barge service.

Rail Shipments of Grain Higher Than in 1991/92

Rail shipments of grain and soybeans during September-July 1992/93 averaged 28,323 cars per week, 4 percent above 1991/92. Much of this increase resulted from a 400-million-bushel increase in domestic use of corn. Rail deliveries of grain to ports remained nearly unchanged from 1991/92, averaging 7,652 cars per week. As usual, Pacific Coast and Texas ports dominated, averaging 3,228 and 2,590 cars per week, respectively.

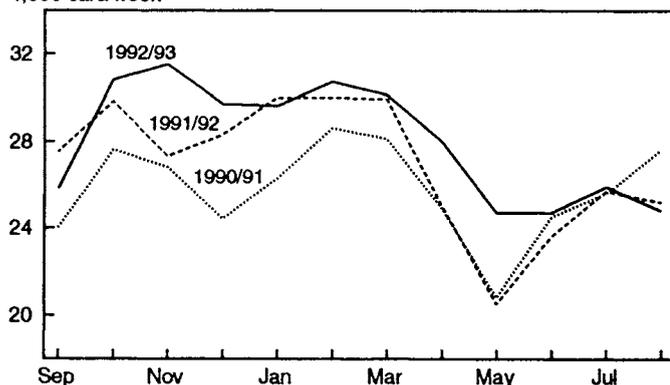
Covered Hopper Cars Will be Available at Harvest

Rail car loadings in October-November usually average 7-8 percent above September. This seasonal use often leads to short-lived, reported shortages of covered hopper cars. Because the onset of harvest is difficult to predict, rail-

Figure 11

Railcar Loadings of Grain and Soybeans

1,000 cars/week

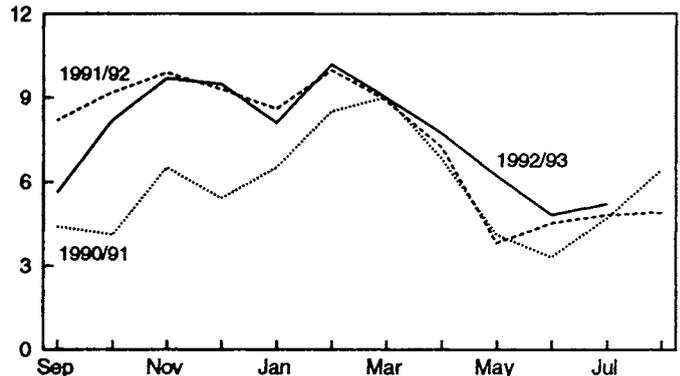


Weekly data averaged to get monthly observation.

Figure 12

Railcar Unloadings of Grain

1,000 cars/week



At Atlantic, Gulf, and Pacific ports.

roads find it difficult to position cars exactly where and when they are needed. In the few days required to move cars from storage sites to areas of peak harvest, some reports of car shortages are expected, especially early in the season.

The number of jumbo covered hopper cars (4,000 cubic feet capacity or larger) available for use has increased since last year. In August 1993, 249,952 jumbo cars, with a total capacity of about 849 million bushels, were in service. This represents a 1-percent increase from August 1992.

More than 3,000 covered hopper cars are now on order. The new cars will be capable of hauling 120 tons of grain, 20 percent more than most of the current fleet. Good demand for rail-carried bulk commodities and favorable interest rates are the major underlying factors for these orders.

Prospects for reduced corn harvest and exports suggest that demand for rail service in October-November 1993 will be well below the 30,000-31,000 cars per week in 1992.

Harvest Time Rail Rates Projected Up From Last Year

The Bureau of Labor Statistics' rail rate index for grain in July 1993 was up 3 percent from July 1992. During September 1992-July 1993 the index averaged 113.7, about 1 percent above 1991/92. Strong demand by grain shippers and substantial costs associated with continuing rail service during the recent flood, suggest that rail rates will continue to increase moderately during 1993/94.

Flood Conditions Close Most Inland Waterways

High water and flooding caused a halt in traffic at least along sections of the Illinois, Missouri, and upper-Mississippi rivers much of the summer. In mid-July, the U.S. Coast Guard prohibited commercial barge traffic from Cape Girardeau to the heads-of-navigation of the three rivers. July 1993 grain and soybean shipments through Lock 27 averaged only 202,000 tons per week, 81 percent below June and 80 percent below July 1992. Through this period, the Ohio River remained open. Grain traffic on the Ohio River in the September-July 1992/93 period averaged 174,000 tons per week, 60 percent above 1991/92. During the last 3 weeks of July, grain and soybean shipments on the Ohio River averaged 173,000 tons per week. Continued closing of the Illinois, Missouri and upper-Mississippi rivers into August, saw grain shipments doubling above September-July 1992/93. Grain and soybean shipments on the Ohio River averaged 366,000 tons during the first 2 weeks of August 1993. Above-average volume is expected on the Ohio River until navigation on the Missouri, Illinois and upper-Mississippi rivers return to normal.

Prospective Return to Normal Navigation

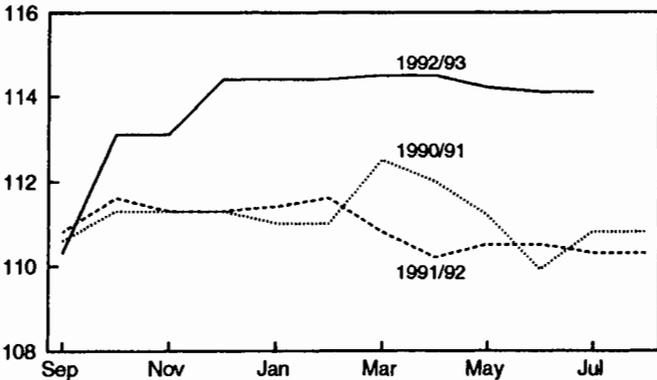
Rapidly receding water levels on the Mississippi and Missouri allowed resumption of restricted commercial barge operations in late-August. On August 3, 1993, the flood gauge at St. Louis, Missouri, registered 47.9 feet, 17.9 feet above flood stage. By August 20, the river had fallen to 36 feet, and on August 23 stood at 33.7 feet. Similar reductions took place throughout the flooded system.

On August 23, the U.S. Coast Guard permitted both north and south bound traffic on the Mississippi River, unrestricted navigation was permitted on the Missouri River, and the Illinois River was expected to reopen. Some restrictions and localized closures continued in effect and normal conditions are not expected to return for several weeks for a number of reasons. Wakes from tows and tow-boats have the potential to damage water-weakened levees. Channel markers have been swept away by the flood and need to be replaced. Finally the channel itself may contain hazards. Flood waters have created sand bars and snags are likely to be found at unexpected places. As the result, the U.S. Coast Guard will limit speed and tow size until the dangers have passed.

Figure 13

Rail Rate Index for Grain

% of December 1984

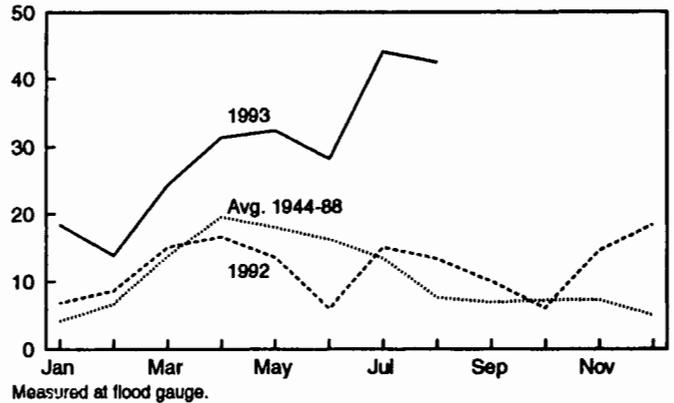


Source: Bureau of Labor Statistics.

Figure 15

River Stages at St. Louis

Feet

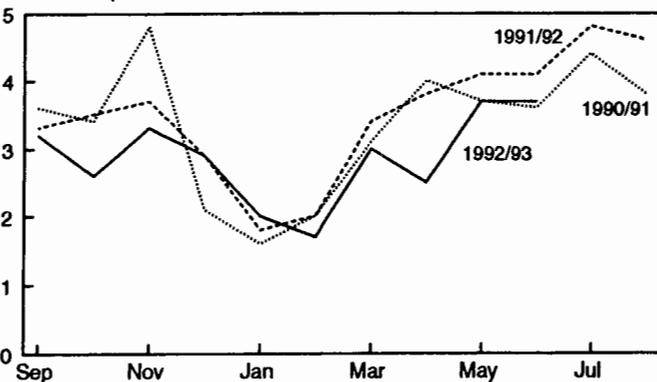


Measured at flood gauge.

Figure 14

Barge Shipments of Grain

Million tons per month

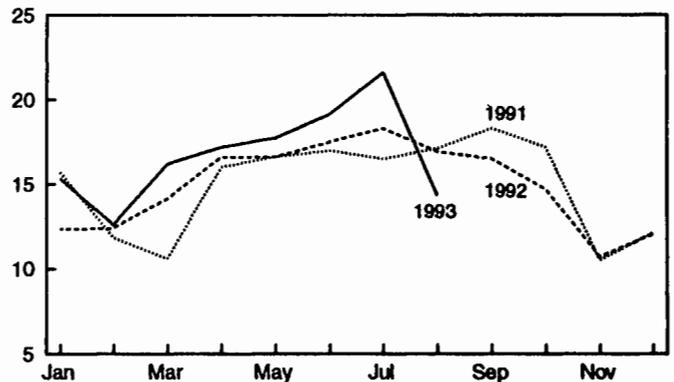


Mississippi River and Illinois waterway.

Figure 16

River Stages at Sioux City

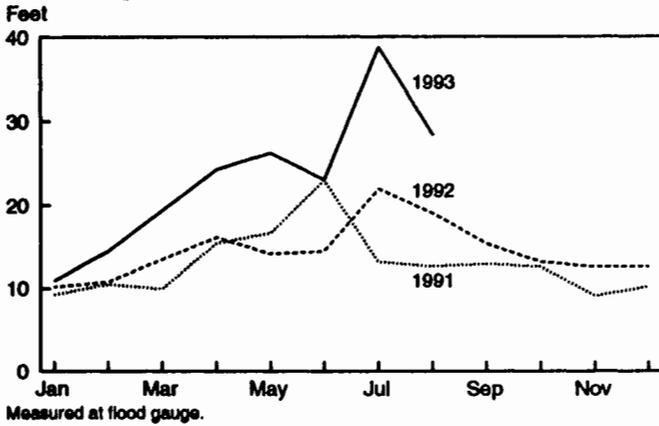
Feet



Measured at flood gauge.

Figure 17

River Stages at Kansas City



The following restrictions applied on the Mississippi River downstream from St. Louis, Missouri. Tow size was restricted to 15 barges moving downstream, 24 barges upbound. Speed is restricted so as to produce no wake. Towboats must offer 250 horsepower for each 1,500 tons pushed. Under normal circumstances, 15 barge tows are common upstream from St. Louis and 30 barge tows are found downstream.

Once all restrictions are lifted, barge operators are expected to quickly respond to improved conditions. Flooding in early May 1993 reduced grain shipments through Lock 27 to 289,000 tons during the first week of May, down 53 percent from the last week of April. As the flood abated in the last week of May, shipments were 962,000 tons and averaged 1.45 million tons per week in the first 3 weeks of June. Some navigation has been permitted on some portions of the involved waterways throughout the flood period. Towboat operators have moved grain as far downstream as possible and substantial volumes are positioned for rapid shipment to export points.

Diesel Fuel Prices Trend Down

Following a high of \$1.19 per gallon for the year in October 1992, diesel fuel prices trended down to average \$1.10 per gallon for August 1993. The recently enacted 4.3 cents-per-gallon increase in Federal fuel taxes, effective October 1, 1993, will result in prices well below the \$1.563 average of October 1990, when events in the Persian Gulf caused fuel prices to skyrocket. [T.Q. Hutchinson, (202) 219-0840]

Lower U.S. Corn Crop To Pull Down World Coarse Grain Supply

Global coarse grain production is forecast down 6 percent in 1993/94, despite stable foreign outlook. Consumption is expected to slip but still exceed production.

Corn Supplies To Tighten, But Other Grains Relatively Abundant

Global coarse grain production in 1993/94 is projected to decline from 854 million tons in 1992/93 to 800 million in 1993/94 largely because of the sharp decline in the U.S. corn crop. The outlook for foreign coarse grain production is for little change in aggregate from a year earlier, although there will be numerous country and regional differences. Despite large carryin stocks, global coarse grain supplies are projected to decline 3 percent in the face of the marked drop in production.

Corn will account for most of the reduction in world production, projected down 51 million tons, or 10 percent, from the record 1992/93 harvest. Global output of sorghum will also decline, projected to drop 8 million tons, with the largest portion of the decrease in the United States. In addition, a small decline in world rye production is expected. World production of barley is projected to rise 5 million tons and oats about 900,000 tons.

Global consumption of coarse grains is expected to fall about 0.5 percent in 1993/94. However, this will still outstrip production and lead to some drawdown in stocks. World ending stocks in 1993/94 are projected to drop 17 percent to 131 million tons, the lowest since 1989/90. This would result in a stocks-to-use ratio of 15.8 percent, also the lowest since 1989/90.

Tighter global corn supplies, mainly due to events in the United States, are expected to lead to higher prices in the world market. Based on forecasts of U.S. farm prices, in 1993/94 the export price for U.S. corn, f.o.b. Gulf Ports, is likely to rise by \$5 to \$20 per ton from \$98 per ton in 1992/93. Sorghum prices are also likely to be somewhat higher. However, the price of barley in the world market will probably stay flat or decline due to sluggish world demand and abundant supplies. In contrast to corn, world wheat prices are forecast to decline in 1993/94, reflecting large exportable supplies, sharp competition, and weak import demand.

Foreign Production Prospects Stable

Foreign coarse grain production is projected at 581 million tons in 1993/94, up from 577 million in 1992/93. Prospects for many of the largest producers, including the European Community (EC), the former Soviet Union (FSU), and Canada, have improved in recent weeks because of favorable weather. Outside of the United States and North

Africa, relatively few countries have experienced major weather problems so far this season. However, planting in most of the Southern Hemisphere has not yet begun.

Despite earlier expectations of larger reductions, EC coarse grain production is projected to decline just 1 percent in 1993/94. The Common Agricultural Policy (CAP) Reforms that include a new set-aside program and lower price supports have reduced acreage and, apparently, input use. However, good growing conditions and other factors, such as idling more marginal land, have supported yield prospects. In addition, Spain is expected to rebound from its drought-ravaged crop, somewhat skewing comparisons with 1992/93. Excluding Spain, the EC crop is projected down 2.6 percent from a year earlier.

Coarse grain output in the newly independent countries of the former Soviet Union and the Baltic States is projected to increase 8 percent to 103 million tons, the highest in 3 years. This reflects both higher area and yields, with most of the gain expected in barley and smaller gains likely for corn. While above-normal rainfall in many areas during mid-summer hampered the harvest of winter grains, it benefited most spring grains. The quality of the crops and the ability to handle this size crop without excessive losses are of extreme concern, however. Barley is the leading coarse grain grown in the FSU, followed by rye, oats, and corn. Among the individual States, Russia is the largest producer of coarse grains as well as wheat. Ukraine accounts for the biggest share of corn production.

Although a slight drop is likely, China will have another large crop in 1993/94. Corn production in China is projected at 94 million tons, down just 1.5 percent from last year, because of lower area.

In Eastern Europe, crop prospects are mixed. Growing conditions are somewhat better than in 1992/93 in some areas, but others have continued to suffer from below normal rainfall. Also, acreage has dropped. Most countries have also faced tighter input supplies. Overall production is forecast to rise 3 percent to 44 million tons, historically still very low.

Foreign Consumption To Remain Flat in 1993/94

After a modest gain in 1992/93, foreign coarse grain consumption is projected to fall slightly in 1993/94. This continues the stagnant pattern of recent years largely related to contraction of the livestock sectors in the FSU and Eastern Europe.

Table 4--Foreign coarse grain production, major countries and regions, 1990/91-1993/94

	1990/91	1991/92	1992/93 1/	1993/94 2/
	Million tons			
China	111.7	112.3	109.0	107.7
Former Soviet Union	103.3	80.4	95.4	102.9
EC-12	84.0	89.7	82.5	81.9
Eastern Europe	51.4	64.8	43.0	44.2
India	32.5	26.3	36.8	31.2
Brazil	24.4	29.3	28.8	27.8
Canada	24.5	21.8	19.5	22.7
Mexico	18.4	17.6	18.0	18.0
Argentina	10.8	14.5	15.3	14.1
Other Western Europe	13.5	12.8	9.4	10.3
Turkey	9.3	9.7	9.1	9.9
South Africa	8.9	3.4	9.3	8.6
Australia	6.8	7.5	8.4	8.5
Nigeria	6.3	8.1	8.1	8.3
Thailand	4.1	3.8	3.8	3.8
Others	79.5	80.5	80.7	80.9
Total	589.4	582.2	576.8	580.8

1/ Preliminary. 2/ Forecast.

In 1992/93, foreign coarse grain use is up a forecast 1.7 percent, the first increase in 3 years. However, most of the increase can be attributed to a sharp rebound in food use of coarse grains in India, which had a record crop after the drought the year before. Low government procurements of wheat and rice also contributed to higher usage of coarse grains in India. Foreign use for livestock feed, the major component of coarse grain consumption, has continued to decline in 1992/93, and is forecast to fall to the lowest level since the mid-1980's.

In 1993/94, foreign consumption is projected to decline about 0.2 percent to 631.5 million tons. One of the key

factors that will determine use will be the amount of wheat that competes with coarse grain for feeding in much of Europe and the FSU. This will largely hinge on the quality and availability of wheat from local harvests. While supplies of feed quality wheat in the world market should be plentiful in 1993/94, and priced attractively, only South Korea is expected to import large amounts of wheat for feed.

In the EC, consumption of coarse grains is projected to be about unchanged in 1993/94 from the previous year, with a slight increase in feeding. However, EC feed use of wheat is projected to increase even more. The interplay of a number of factors, such as reduced grain prices due to CAP Reform, changes in prices of competing feeds, and exchange rate movements could lead to further adjustments in EC coarse grain use.

A small gain is expected in FSU consumption in 1993/94 because of a larger harvest and a slower decline in livestock inventories. Russia, Ukraine, and some other republics have re-introduced subsidies to livestock producers. However, consumer demand for meat and livestock products is likely to decline further. In Russia, per capita consumption of meat and dairy products declined about 15 percent in 1992 in response to higher retail prices, while consumption of bread and potatoes rose about 5 percent. Relative to other countries at similar income levels, per capita meat consumption in the FSU has been high. Recent adjustments resulting from cuts in subsidies and more realistic pricing are bringing meat consumption patterns to levels more in line with other countries.

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Prospective 1993/94 Coarse Grain Trade Weak

A sharp decline in corn trade is expected but only small changes for other coarse grains are likely. U.S. coarse grain exports are projected to decline 8 percent and the U.S. market share to drop.

Update on 1992/93

U.S. corn exports are forecast at 42 million tons in 1992/93.¹ Flooding along the Mississippi and other rivers this summer has had a relatively small impact on U.S. exports of corn and other coarse grains. Although barges on the Mississippi River supply a large share of corn exports, the disruption coincided with a slow period for export movement. Supplies already in position at the port, movement via the Ohio river and by rail, and some switching of shipments to the West Coast and Great Lakes were adequate to cover a large share of needs.

Traditionally July and August are two of the slowest months for U.S. corn exports. In 1992, there was a noticeable jump in summer exports due to unusually large shipments of corn to drought-stricken southern Africa. In 1993, this extra demand was absent, and the two major customers have been Japan and Taiwan. Both of these importers also use ports in the Pacific Northwest as an alternative to Gulf ports, and some shipments were switched. Despite some delays, neither importer was desperately in need of supplies and it appeared that little, if any, business was shifted to other suppliers. China, the most logical alternative supplier for Asian markets, also experienced shipping delays during this period.

U.S. exports to Russia during the late summer will be less than expected, however. As of August 20th, Russia had not tapped the U.S. food aid package announced earlier in the year that included \$227.5 million for corn. On August 17th, USDA issued a purchase authorization for this package, allowing Russia to buy more than 2 million tons of U.S. corn, with a contracting period of August 24 to September 30. In 1992/93, FSU imports are forecast to decline for the fourth consecutive year. This downturn has had the biggest impact on the United States, the FSU's major supplier of corn.

World Coarse Grain Imports Projected To Decline 3 Percent in 1993/94

World coarse grain trade in 1993/94 is projected at 85.2 million tons, compared with 87.9 million forecast for 1992/93, mainly because of a steep decline in corn. Trade prospects for the other coarse grains are more even. In particular, the outlook for sorghum is very stable, with projected trade at 9.1 million tons in 1993/94, up marginally from 1992/93. Larger increases are expected in barley and oats.

¹ All trade years referred to in this section are October-September and exclude intra-EC trade unless otherwise specified.

Figure 18
U.S. Corn Exports by Month

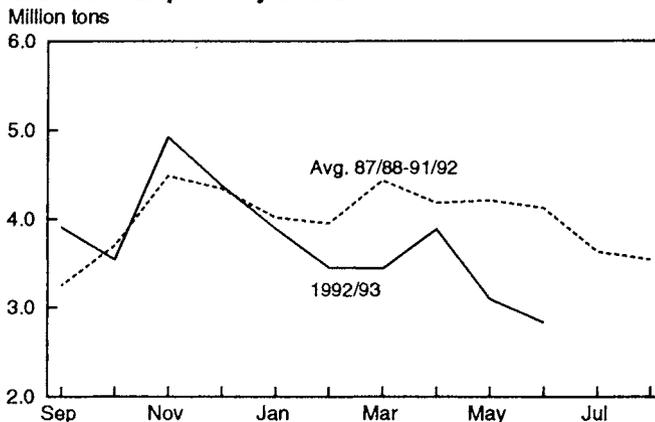
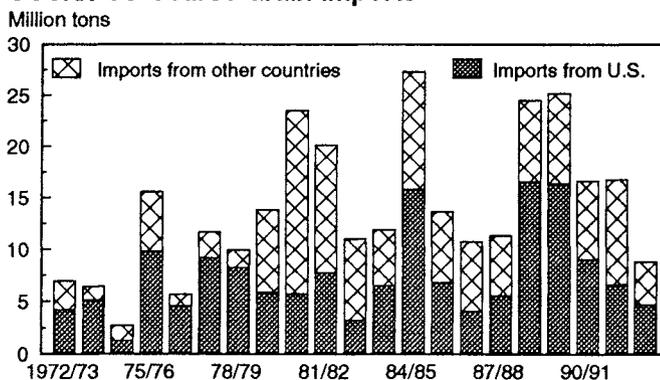


Figure 19
USSR/FSU Coarse Grain Imports



Data are on an October/September marketing year.
Data for 1992/93 are shipments through June.

World corn trade is projected at 55.9 million tons in 1993/94, down from 60 million forecast in 1992/93. This will be the lowest since 1985/86. Trade is expected to shrink in 1993/94 in response to bigger crops in a number of countries, stagnant consumption in others, and continued competition with feed wheat in South Korea. The outlook was depressed even before problems surfaced with the U.S. corn crop. Higher prices stemming from the smaller U.S. supplies are expected to have relatively little additional impact.

World barley trade is projected to increase 7 percent in 1993/94 to 16.2 million tons. However, the outlook is weak relative to earlier years because of limited import demand. Imports by both Saudi Arabia and the FSU have dropped in 1992/93, pulling down world trade to a forecast 15.2 million tons, the lowest since 1982/83. Saudi Arabia

is attempting to reduce large barley stocks, while encouraging a shift from wheat into barley production. No gains are forecast in Saudi imports in 1993/94, and over the longer run, success in increasing domestic harvests would mean lower barley imports. Barley imports by the FSU are down in response to a larger crop and continued cuts in livestock feeding.

Although barley prices are currently relatively low and likely to stay low, few importers will increase purchases. The only significant increases in imports in 1993/94 are forecast in Morocco and Algeria, where domestic crops are down.

World oats trade is projected to increase in 1993/94. A gain in U.S. imports due to a smaller domestic harvest and a rebound in exporter supplies will account for most of this increase. Improved crop conditions in Sweden and Finland will support higher exports in 1993/94, which will mainly come to the United States. Canada is also expected to have large supplies. In 1992/93 (June/May), Canada was the dominant U.S. supplier, providing two-thirds of U.S. imports. However, with the drought reduced crops in Finland and Sweden, total U.S. imports fell to the lowest volume since 1987/88.

U.S. Exports To Decline 8 Percent

The contraction in world trade in 1993/94 is expected to lead to a sharp fall in U.S. coarse grain exports, which are projected to drop to 46.6 million tons from the forecast level of 50.8 million in 1992/93. This will result in a U.S. market share of 55 percent, down from 58 in 1992/93.

U.S. corn exports are projected to decline 10 percent to 38 million tons. Aggregate competitor corn exports are projected to be about unchanged. Some easing of shipments by Argentina is projected, but the outlook will mainly be determined by the size of the crop yet to be planted. Farmers in Argentina will respond to relative prices of corn and oilseeds in their planting decisions. Current conditions suggest some gains in soybean area at the expense of corn are likely. Small gains in South Africa's corn exports are projected, but prospects will also be largely dependent on the crop to be planted later this year.

Competition from China is expected to remain intense in Asian markets, with exports projected to remain large at 9 million tons, equal to 1992/93. In recent weeks, however,

there has been some slowing in the pace of China's exports, suggesting that supplies of old crop corn are tight. Other possible causes may be a shortage of transportation, excessive amounts of low quality corn below export standards, and some confusion following the end of the government monopoly on exporting. What is more uncertain is whether stronger domestic demand for feed is beginning to erode China's exportable corn supplies. This is likely to occur at some point in the future.

U.S. sorghum exports are projected at 7 million tons, the same as 1992/93. The outlook for competitors is also for little change. Argentina's exports are forecast to drop slightly, but this is offset by a rebound in Australia's exports due to a bigger crop. Among minor suppliers, Sudan is expected to continue some exports, but less than in 1992/93.

U.S. barley exports are projected to decline 12 percent to 1.5 million tons in 1993/94. The major variable will be demand by Saudi Arabia, the largest U.S. market. In addition, competition in the world market will be sharp because of weak import demand and relatively large export supplies. Most U.S. export sales are expected to continue under the Export Enhancement Program (EEP).

CAP reform will not have an appreciable impact on EC barley exports in 1993/94, and it is expected to remain the world's largest exporter. Exports by Australia are forecast to fall slightly, but it will continue to do well exporting malting barley. Over the past 5 years, malting barley exports have accounted for an average of more than 40 percent of Australia's total barley exports, a much higher share than other major exporters.

Canada's barley exports are projected to rise 20 percent because of a larger crop and the likelihood of improved malting barley supplies. Canada is facing shrinking demand from some of its traditional customers, but its shipments to the United States are likely to increase in 1993/94. A change in the structure of Canada's export marketing, with the end of the Canadian Wheat Board's monopoly on barley exports to the U.S. on August 1, will probably have less of an effect than a larger crop and competitive prices.

U.S. Barley Malt Exports Sustain Gains

U.S. barley malt exports increased 6 percent to 124,132 tons in calendar year 1992, the highest since 1947. For the first 6 months of 1993, exports are up significantly from the same period a year earlier. U.S. exports have been increasing steadily in the 1990's, while imports have been dwindling to very low levels. Although barley malt is covered under EEP, the recent export success is mainly the result of sales to non-EEP markets.

The major destinations for U.S. malt in recent years have been Mexico and the UK, followed by Japan. These three countries have accounted for 70 percent of total U.S. sales in the last 4 years. Mexico's growth is tied to gains in domestic beer consumption as its economy grows, and to the development of beer exports, largely to the United States.

Table 5--U.S. Oats imports by country of origin, 1988/89-1992/93 1/

	1988/89	1989/90	1990/91	1991/92	1992/93
	Thousand metric tons				
Canada	654	688	398	266	625
Finland	1	210	362	386	119
Sweden	278	193	212	497	116
Poland	18	0	0	59	22
Argentina	41	0	0	0	0
Other	18	1	0	0	65
Total	1,010	1,092	972	1,207	947

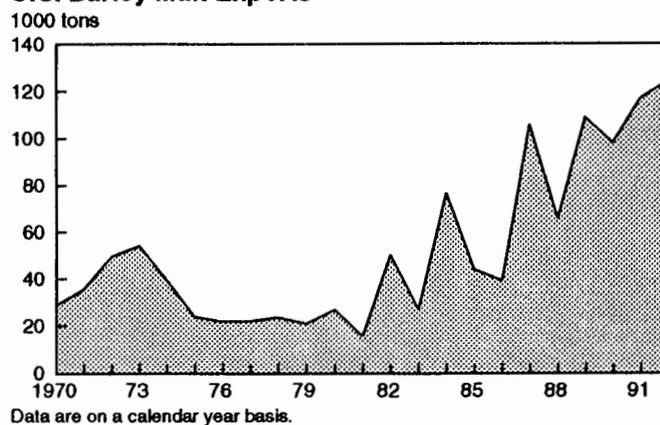
1/ June-May year.

Table 6--World coarse grain trade: Major exporters and importers, by commodity, 1990/91-1993/94 1/

Item	1990/91	1991/92	1992/93 2/	1993/94 3/
----- Million metric tons -----				
CORN				
Exporters:				
U.S.	44.5	40.6	42.0	38.0
Argentina	3.6	5.9	6.5	6.0
China	6.6	9.3	9.0	9.0
Thailand	1.2	0.4	0.1	0.3
South Africa	0.7	0.8	0.0	0.4
Others	2.2	4.6	2.4	2.2
Total	58.8	61.6	60.0	55.9
Importers:				
Japan	16.3	16.5	16.4	16.2
Former USSR	11.5	10.3	6.1	6.4
EC-12	3.1	1.8	2.0	2.0
Korea, Rep.	5.6	6.2	6.5	6.5
Taiwan	5.3	5.4	5.4	5.4
Mexico	1.9	1.1	0.5	0.5
China	0.0	0.0	0.0	0.0
Eastern Europe	1.3	0.1	1.2	0.4
Brazil	0.9	0.5	0.7	0.7
Egypt	1.9	1.3	1.3	1.3
Others	11.0	18.4	19.9	16.5
Total	58.8	61.6	60.0	55.9
SORGHUM				
Exporters:				
U.S.	5.8	7.5	7.0	7.0
Argentina	1.3	1.3	1.6	1.4
Australia	0.3	0.2	0.0	0.3
Others	0.4	0.4	0.4	0.4
Total	7.8	9.4	9.0	9.1
Importers:				
Japan	3.6	3.3	3.4	3.3
Mexico	3.0	5.0	4.5	4.5
Taiwan	0.1	0.1	0.1	0.1
Venezuela	0.0	0.0	0.0	0.0
Israel	0.2	0.2	0.2	0.3
Former USSR	0.0	0.0	0.0	0.0
Others	0.9	0.8	0.8	0.9
Total	7.8	9.4	9.0	9.1
BARLEY				
Exporters:				
EC-12	7.1	8.3	6.0	6.5
Canada	4.3	3.5	2.5	3.0
Australia	2.8	2.0	2.7	2.5
U.S.	1.5	2.1	1.7	1.5
Others	2.9	2.9	2.3	2.7
Total	18.6	18.8	15.2	16.2
Importers:				
Saudi Arabia	4.2	6.5	4.0	4.0
Former USSR	5.7	5.3	3.0	2.8
Eastern Europe	1.2	0.2	0.8	1.2
Japan	1.5	1.5	1.5	1.5
Others	6.0	5.3	5.9	6.7
Total	18.6	18.8	15.2	16.2
COARSE GRAINS				
TOTAL TRADE	88.1	93.4	87.9	85.2

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

Figure 20
U.S. Barley Malt Exports



Sales of U.S. malt to the UK is linked to the brewing of American-style beers that have become more popular there. Japan is the world's largest malt market, and typically has a diversified buying pattern that includes U.S. malt.

Outside of the Dominican Republic, which has emerged as a steady market, U.S. barley malt sales under EEP have been quite irregular and sporadic. Since the EEP began, the United States has made occasional EEP sales to some large markets, including Venezuela, Brazil, and the Philippines, but they have bought sparingly from the United States.

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Appendix table 1--Feed grains: Marketing year supply and disappearance, area, and prices, 1986/87-1993/94 1/

Year 2/	Supply				Disappearance					Ending stocks			
	Begin- ning stocks	Produc- tion	Imports	Total	Domestic use			Exports	Total disap- pearance	Govt. owned	Privately owned 3/	Total	
					Food, alcohol, and industrial	Seed	Feed and residual						
Million metric tons													
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	11.3	36.4	47.7
1991/92	47.7	218.4	2.1	268.2	41.6	1.1	141.8	184.5	49.7	234.2	3.2	30.7	34.0
1992/93 4/	34.0	277.4	1.2	312.6	42.9	1.1	153.1	197.1	51.4	248.5	1.3	62.9	64.1
1993/94 5/	64.1	218.7	1.6	284.4	---45.0---		149.5	194.5	46.3	240.7			43.7

	Area			Yield per harvested hectare	Average price received by farmers 7/	Government- support program Total payments to participants 8/
	Set-aside and diverted 6/	Planted	Harvested for grain			
1986/87	7.4	48.4	41.1	6.12	73	7,281
1987/88	12.5	43.2	35.2	6.16	97	8,447
1988/89	11.1	41.2	32.6	4.59	129	3,111
1989/90	6.7	42.9	36.8	6.00	118	3,918
1990/91	6.9	41.8	36.2	6.36	112	3,400
1991/92	5.1	42.3	37.2	5.87	117	2,458
1992/93	4.2	43.9	38.9	7.13	103	4,120
1993/94		40.6	34.5	6.33		

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 resale). 4/ Preliminary. 5/ Projected. 6/ Includes diversion, acreage reduction, 0-92, and 50-92 programs; 0-92 and 50-92 set-asides include idled acreage and acreage planted to minor oilseeds. 7/ Excludes support payments. 8/ Deficiency and diversion payments.

Appendix table 2--Foreign coarse grains: Supply and disappearance, 1981/82-1993/94 1/

Year	Beginning stocks	Production	Feed	Total disappearance	Imports	Adjusted imports 2/	Ending stocks
Million metric tons							
Corn:							
1981/82	50.1	235.2	177.9	291.4	77.9	67.3	44.6
1982/83	44.6	230.6	175.7	281.5	72.9	63.3	39.9
1983/84	39.9	241.6	168.9	288.7	64.2	61.1	40.7
1984/85	40.7	264.2	185.1	303.4	72.5	66.5	48.5
1985/86	48.5	253.8	187.4	290.9	61.6	54.2	42.3
1986/87	42.3	266.1	193.9	307.4	59.5	56.6	38.8
1987/88	38.8	268.9	199.7	313.3	62.8	56.6	40.4
1988/89	40.4	275.2	211.9	326.6	74.1	65.4	40.3
1989/90	40.3	268.9	214.6	330.9	81.5	74.4	38.4
1990/91	38.4	275.9	196.7	316.5	61.8	58.7	41.5
1991/92	41.5	295.0	208.2	324.7	73.5	61.1	51.5
1992/93 3/	51.5	287.4	204.3	333.2	62.3	59.9	48.1
1993/94 4/	48.1	289.1	212.3	335.2	61.4	55.7	39.2
Sorghum:							
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	24.6	47.3	9.6	8.8	5.0
1986/87	5.0	40.5	22.9	46.3	7.9	7.8	4.3
1987/88	4.3	37.7	22.2	44.9	8.6	8.3	3.0
1988/89	3.0	39.9	23.2	46.0	11.0	10.6	4.8
1989/90	4.8	39.4	21.5	47.2	9.2	9.0	4.7
1990/91	4.7	37.8	21.0	44.3	8.0	7.8	4.0
1991/92	4.0	36.5	21.8	43.1	9.8	9.4	4.8
1992/93 3/	4.8	39.7	21.5	47.0	9.1	9.0	4.5
1993/94 4/	4.5	37.6	21.2	45.2	9.0	9.1	3.8
Barley:							
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	115.9	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	163.4	125.7	162.5	24.1	18.4	26.0
1987/88	26.0	162.5	124.8	166.1	23.7	15.7	24.8
1988/89	24.8	156.4	116.6	155.5	21.2	15.6	27.2
1989/90	27.2	155.9	121.1	159.4	21.9	17.5	25.3
1990/91	25.3	168.8	123.3	166.7	22.9	18.2	28.8
1991/92	28.8	159.0	114.3	161.3	22.6	18.3	28.0
1992/93 3/	28.0	155.3	113.3	158.2	19.3	15.0	26.7
1993/94 4/	26.7	160.3	115.9	159.0	20.1	15.8	29.2
Total coarse grains: 5/							
1981/82	82.1	512.2	353.7	580.4	114.7	97.1	73.1
1982/83	73.1	524.5	359.1	576.2	103.7	89.3	73.6
1983/84	73.6	540.3	366.0	598.2	99.0	92.5	71.2
1984/85	71.2	569.1	378.9	609.0	110.8	99.3	86.7
1985/86	86.7	558.3	388.8	598.0	95.1	81.8	82.3
1986/87	82.3	570.0	395.1	614.9	93.1	82.1	82.6
1987/88	82.6	566.7	404.2	622.2	97.2	87.2	80.9
1988/89	80.9	571.2	404.8	627.1	108.1	93.7	84.9
1989/90	84.9	568.9	412.6	639.9	114.5	102.5	82.3
1990/91	82.3	589.4	396.7	629.3	94.2	86.3	92.5
1991/92	92.5	582.2	395.1	622.7	108.0	91.2	99.5
1992/93 3/	99.5	576.8	385.8	633.1	93.9	86.8	93.3
1993/94 4/	93.3	580.8	392.9	631.5	92.6	83.5	87.1

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/ Forecast. 4/ Projected. 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--Corn: Marketing year supply and disappearance, area, and prices, 1986/87-1993/94

Year beginning September 1	Supply				Disappearance					Ending stocks Aug. 31			
	Begin- ning stocks	Produc- tion	Imports	Total	Domestic use			Exports	Total disap- pearance	Govt. owned	Privately owned 1/	Total	
					Food, alcohol, and industrial	Seed	Feed and residual						
Million bushels													
1986/87	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	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	4,259.1	4,928.7	2.8	9,190.6	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
1989/90	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	1,344.5	7,934.0	3.4	9,281.9	1,353.7	19.3	4,663.0	6,036.1	1,724.6	7,760.7	371.1	1,150.1	1,521.2
1991/92	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	112.5	987.8	1,100.3
1992/93 2/	1,100.3	9,478.9	6.0	10,585.2	1,491.3	18.7	5,250.0	6,760.0	1,675.0	8,435.0	45.0	2,105.2	2,150.2
1993/94 3/	2,150.2	7,423.1	10.0	9,583.4	----1,550.0----		5,150.0	6,700.0	1,475.0	8,175.0			1,408.4

	Area			Yield per harvested acre	Average prices				Government-support program		
	Set-aside and diverted 4/	Planted	Harvested for grain		Received by farmers 5/	St. Louis No. 2 yellow	Omaha No. 2 yellow	Gulf Ports No. 2 yellow	National average loan rate	Target price	Total payments to participants 6/
	-----Million acres-----			Bushels	-----\$/bu.-----				\$ million		
1986/87	12.7	76.6	68.9	119.4	1.50	1.68	1.53	1.83	1.92	3.03	6,328
1987/88	23.2	66.2	59.5	119.8	1.94	2.19	1.98	2.39	1.82	3.03	7,378
1988/89	20.5	67.7	58.3	84.6	2.54	2.72	2.49	2.93	1.77	2.93	2,728
1989/90	10.8	72.2	64.7	116.3	2.36	2.58	2.41	2.79	1.65	2.84	3,504
1990/91	10.7	74.2	67.0	118.5	2.28	2.49	2.28	2.67	1.57	2.75	3,015
1991/92	7.5	76.0	68.8	108.6	2.37	2.53	2.36	2.74	1.63	2.75	2,080
1992/93	5.3	79.3	72.1	131.4	2.05-2.10	7/ 2.22	7/ 2.06	7/ 2.44	1.72	2.75	3,621
1993/94 3/		73.7	64.0	116.0	2.15-2.55				1.72	2.75	

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected. 4/ Includes diversion, acreage reduction, 0-92, and 50-92 programs; 0-92 and 50-92 set-asides include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Deficiency and diversion payments. 7/ September 1992-June 1993 average.

Appendix table 4--Sorghum: Marketing year supply and disappearance, area, and prices, 1986/87-1993/94

Year beginning September 1	Supply				Disappearance					Ending stocks Aug. 31			
	Begin-ning stocks	Produc-tion	Imports	Total	Domestic use			Exports	Total disap-pearance	Govt. owned	Privately owned 1/	Total	
					Food, alcohol, and industrial	Seed	Feed and residual						
Million bushels													
1986/87	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	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	662.7	576.7	0.0	1,239.3	20.5	1.5	466.3	488.3	311.5	799.8	340.9	98.6	439.5
1989/90	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	219.8	573.3	0.1	793.1	7.3	1.4	409.6	418.4	232.2	650.5	64.7	77.9	142.6
1991/92	142.6	584.9	0.0	727.5	6.8	1.7	374.0	382.5	291.7	674.3	8.2	45.0	53.2
1992/93 2/	53.2	884.0	0.0	937.2	6.1	1.4	475.0	482.5	275.0	757.5	1.0	178.7	179.7
1993/94 3/	179.7	642.4	0.0	822.1	----7.5----		425.0	432.5	275.0	707.5			114.6

	Area			Yield per harvested acre	Average prices				Government-support program		
	Set-aside and diverted 4/	Planted	Harvested for grain		Received by farmers 5/	Kansas City No. 2 yellow	Texas No. 2 yellow	Gulf Ports No. 2 yellow	National average loan rate	Target price	Total payments to participants 6/
1986/87	2.9	15.3	13.9	67.7	2.45	2.73	3.24	3.22	3.25	5.14	570
1987/88	4.1	11.8	10.5	69.4	3.04	3.40	3.81	3.96	3.11	5.14	708
1988/89	3.9	10.3	9.0	63.8	4.05	4.17	4.66	4.81	3.00	4.96	325
1989/90	3.3	12.6	11.1	55.4	3.75	4.21	4.38	4.76	2.80	4.82	391
1990/91	3.3	10.5	9.1	63.1	3.79	4.08	4.48	4.65	2.66	4.66	317
1991/92	2.4	11.1	9.9	59.3	4.02	4.36	4.78	4.86	2.75	4.66	175
1992/93	2.0	13.3	12.2	72.8	3.30-3.39	7/ 3.69	7/ 3.94	7/ 4.24	2.91	4.66	331
1993/94 3/		10.7	9.7	65.9	3.48-4.20				2.91	4.66	

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected. 4/ Includes diversion, acreage reduction, 0-92, and 50-92 programs; 0-92 and 50-92 set-asides include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Deficiency and diversion payments. 7/ September 1992-June 1993 average.

Appendix table 5--Barley: Marketing year supply and disappearance, area, and prices, 1986/87-1993/94

Year beginning June 1	Supply				Disappearance				Ending stocks May 31				
	Begin- ning stocks	Produc- tion	Imports	Total	Domestic use		Total	Exports	Total disap- pearance	Govt. owned	Privately owned 1/	Total	
					Food, alcohol, and industrial	Seed							
-----Million bushels-----													
1986/87	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	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	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
1989/90	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	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	135.4	464.3	24.5	624.2	158.0	12.9	230.2	401.1	94.5	495.6	6.5	122.1	128.6
1992/93 2/	128.6	456.3	11.4	596.3	151.8	13.2	199.4	364.4	80.3	444.7	5.0	146.7	151.7
1993/94 3/	151.7	466.7	20.0	638.4	---165.0---		225.0	390.0	80.0	470.0			168.4

	Area			Yield per harvested acre	Average prices			Government-support program			
	Set-aside and diverted 4/	Planted	Harvested for grain		Minneapolis		Portland No. 2	National average loan rate	Target price	Total payments to participants 7/	
					Received by farmers 5/	No. 2 or better feed 6/					No. 3 or better malting
-----Million acres-----											
				Bushels	-----\$/bu.-----				\$ million		
1986/87	2.0	13.0	12.0	50.8	1.61	1.44	1.89	1.96	1.56	2.60	352
1987/88	3.0	10.9	10.0	52.4	1.81	1.78	2.04	2.09	1.49	2.60	336
1988/89	2.8	9.8	7.6	38.0	2.80	2.32	4.11	2.74	1.44	2.51	54
1989/90	2.3	9.1	8.3	48.6	2.42	2.20	3.28	2.61	1.34	2.43	23
1990/91	2.9	8.2	7.5	56.1	2.14	2.13	2.42	2.65	1.28	2.36	60
1991/92	2.2	8.9	8.4	55.2	2.10	2.17	2.38	2.66	1.32	2.36	173
1992/93	2.4	7.8	7.3	62.4	2.04	2.11	2.37	2.57	1.40	2.36	153
1993/94			7.5	61.3	1.95-2.35				1.40	2.36	

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected. 4/ Includes diversion, acreage reduction, 0-92, and 50-92 programs; 0-92 and 50-92 set-asides include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Starting March 1987, shifted to Duluth. 7/ Deficiency and diversion payments.

Appendix table 6--Oats: Marketing year supply and disappearance, area, and prices, 1986/87-1993/94

Year beginning June 1	Supply				Disappearance					Ending stocks May 31			
	Begin-ning stocks	Produc-tion	Imports	Total	Domestic use			Exports	Total disap-pearance	Govt. owned	Privately owned 1/		
					Food, alcohol, and industrial	Seed	Feed and residual				Total	Total	
-----Million bushels-----													
1986/87	183.7	385.0	32.4	601.0	45.0	38.0	384.5	467.5	0.9	468.4	3.5	129.1	132.6
1987/88	132.6	373.7	45.7	552.0	49.8	31.6	358.2	439.6	0.5	440.1	3.5	108.4	111.9
1988/89	111.9	217.6	62.9	392.4	72.7	27.1	193.8	293.6	0.6	294.2	2.4	95.9	98.3
1989/90	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	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	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 2/	127.7	294.6	55.0	477.3	107.2	17.8	233.1	358.1	6.0	364.2	0.0	113.1	113.1
1993/94 3/	113.1	249.8	65.0	428.0	----125.0----		205.0	330.0	5.0	335.0			93.0

	Area			Yield per harvested acre	Received by farmers 5/	Average prices			Government-support program		
	Set-aside and diverted 4/	Planted	Harvested for grain			Minneapolis No. 2 white, heavy	Portland No. 2 white, heavy	Toledo No. 2	National average loan rate	Target price	Total payments to participants 6/
1986/87	0.5	14.7	6.8	56.3	1.21	1.46	1.53	1.20	0.99	1.60	32
1987/88	0.8	17.9	6.9	54.3	1.56	1.92	1.76	1.68	0.94	1.60	26
1988/89	0.3	13.9	5.5	39.3	2.61	2.80	2.23	2.26	0.90	1.55	4
1989/90	0.3	12.1	6.9	54.3	1.49	1.65	1.63	1.40	0.85	1.50	0
1990/91	0.2	10.4	5.9	60.1	1.14	1.30	1.57	1.17	0.81	1.45	8
1991/92	0.6	8.7	4.8	50.7	1.20	1.47	1.60	1.37	0.83	1.45	30
1992/93	0.7	8.0	4.5	65.6	1.32	1.58	1.73	1.51	0.88	1.45	15
1993/94		8.1	4.1	60.7	1.25-1.65				0.88	1.45	

1/ Includes quantity under loan and farmer-owned reserve. 2/ Preliminary. 3/ Projected. 4/ Includes diversion, acreage reduction, 0-92, and 50-92 programs; 0-92 and 50-92 set-asides include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Deficiency and diversion payments.

Appendix table 7--Corn: Marketing year supply and disappearance, specified periods, 1986/87-1993/94

Year beginning September 1	Supply				Disappearance					Ending stocks			
	Beginning stocks	Production	Imports	Total	Domestic use			Exports	Total disappearance	Govt. owned	Privately owned 1/		
					Food, alcohol, and industrial	Seed	Feed and residual				Total	Total	
Million bushels													
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	952.8	1,288.1	509.7	1,797.8	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	1,174.4	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	9,190.6	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
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	686.2	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	4,663.0	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	112.5	987.8	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	112.5	987.8	1,100.3
1992/93:													
Sept.-Nov.	1,100.3	9,478.9	1.3	10,580.5	359.8	0.0	1,826.8	2,186.6	487.5	2,674.1	87.4	7,819.0	7,906.4
Dec.-Feb.	7,906.4	---	1.0	7,907.4	350.1	0.0	1,415.6	1,765.7	463.0	2,228.8	86.8	5,591.8	5,678.6
Mar.-May	5,678.6	---	2.0	5,680.6	387.0	16.4	1,156.5	1,559.9	411.3	1,971.2	64.4	3,645.0	3,709.4
June-Aug. 2/	3,709.4	---	1.7	3,711.1	394.3	2.3	851.1	1,247.7	313.2	1,560.9	45.0	2,105.2	2,150.2
Mkt. year 2/	1,100.3	9,478.9	6.0	10,585.2	1,491.3	18.7	5,250.0	6,760.0	1,675.0	8,435.0	45.0	2,105.2	2,150.2
1993/94:													
Mkt. year 3/	2,150.2	7,423.1	10.0	9,583.4	---	1,550.0	---	5,150.0	6,700.0	1,475.0	8,175.0	---	1,408.4

--- = Not applicable.

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

Appendix table 8--Sorghum: Marketing year supply and disappearance, 1986/87-1993/94

Year beginning September 1	Supply				Disappearance					Ending stocks			
	Begin-ning stocks	Produc-tion	Imports	Total	Domestic use			Exports	Total disap-pearance	Govt. owned	Privately owned 1/		
					Food, alcohol, and industrial	Seed	Feed and residual				Total	Total	
Million bushels													
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	1,239.3	20.5	1.5	466.3	488.3	311.5	799.8	340.9	98.6	439.5
1989/90:													
Sept.-Nov.	439.5	615.4	0.0	1,054.9	3.6	0.0	185.8	189.4	89.9	279.3	314.6	461.0	775.6
Dec.-Feb.	775.6	---	0.0	775.6	4.4	0.0	176.5	180.8	81.2	262.0	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	1.8	0.0	222.3	224.1	56.6	280.7	157.7	354.6	512.3
Dec.-Feb.	512.3	---	0.0	512.3	1.9	0.0	116.4	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	1.8	0.7	38.5	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	409.6	418.4	232.2	650.5	64.7	77.9	142.6
1991/92:													
Sept.-Nov.	142.6	584.9	0.0	727.4	2.0	0.0	228.5	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	1.8	1.1	33.0	35.9	105.0	140.9	14.3	96.1	110.4
June-Aug.	110.4	---	0.0	110.4	1.2	0.6	23.4	25.2	32.0	57.2	8.2	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	8.2	45.0	53.2
1992/93:													
Sept.-Nov.	53.2	884.0	0.0	937.2	1.6	0.0	273.8	275.4	56.4	331.9	2.5	602.8	605.3
Dec.-Feb.	605.3	---	0.0	605.3	1.7	0.0	67.7	69.4	101.5	170.9	4.0	430.4	434.4
Mar.-May	434.4	---	0.0	434.4	1.4	0.7	80.5	82.6	87.3	169.9	3.9	260.6	264.5
June-Aug. 2/	264.5	---	0.0	264.5	1.4	0.7	53.0	55.1	29.8	84.8	1.0	178.7	179.7
Mkt. year 2/	53.2	884.0	0.0	937.2	6.1	1.4	475.0	482.5	275.0	757.5	1.0	178.7	179.7
1993/94:													
Mkt. year 3/	179.7	642.4	0.0	822.1	----	7.5----	425.0	432.5	275.0	707.5			114.6

--- = Not applicable.

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

Appendix table 9--Barley: Marketing year supply and disappearance, specified periods, 1986/87-1993/94

Year beginning June 1	Supply			Disappearance						Ending stocks			
	Beginning stocks	Production	Imports	Total	Domestic use			Exports	Total disappearance	Govt. owned	Privately owned 1/		
					Food, alcohol, and industrial	Seed	Feed and residual				Total	Total	1/
Million bushels													
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
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	44.7	0.0	109.0	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	78.4	36.7	115.0	7.0	321.4	328.4
Dec.-Feb.	328.4	---	6.5	334.8	36.5	1.0	56.8	94.3	24.6	119.0	6.8	209.1	215.9
Mar.-May	215.9	---	7.2	223.1	39.0	11.0	24.7	74.7	19.7	94.5	6.5	122.1	128.6
Mkt. year	135.4	464.3	24.5	624.2	158.0	12.9	230.2	401.1	94.5	495.6	6.5	122.1	128.6
1992/93:													
June-Aug.	128.6	456.3	6.6	591.5	42.7	0.0	112.0	154.7	18.4	173.1	5.8	412.6	418.4
Sept.-Nov.	418.4	---	1.5	419.9	37.1	0.9	13.3	51.3	22.0	73.4	5.4	341.2	346.6
Dec.-Feb.	346.6	---	1.4	348.0	35.0	1.1	46.1	82.2	21.9	104.1	5.5	238.4	243.9
Mar.-May	243.9	---	1.9	245.8	37.0	11.2	27.9	76.1	18.0	94.1	5.0	146.7	151.7
Mkt. year 2/	128.6	456.3	11.4	596.3	151.8	13.2	199.4	364.4	80.3	444.7	5.0	146.7	151.7
1993/94:													
Mkt. year 3/	151.7	466.7	20.0	638.4	----	165.0----	225.0	390.0	80.0	470.0			168.4

--- = Not applicable.

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

Appendix table 10--Oats: Marketing year supply and disappearance, 1986/87-1993/94

Year beginning June 1	Supply				Disappearance					Ending stocks			
	Begin-ning stocks	Produc-tion	Imports	Total	Domestic use			Exports	Total disap-pearance	Govt. owned	Privately owned	Total	
					Food, alcohol, and industrial	Seed	Feed and residual						
Million bushels													
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	129.1	132.6
Mkt. year	183.7	385.0	32.4	601.0	45.0	38.0	384.5	467.5	0.9	468.4	3.5	129.1	132.6
1987/88:													
June-Aug.	132.6	373.7	7.0	513.3	14.5	0.0	104.8	119.3	0.2	119.5	3.3	390.5	393.8
Sept.-Nov.	393.8	---	8.1	401.9	12.7	3.8	91.1	107.6	0.1	107.8	3.4	290.7	294.1
Dec.-Feb.	294.1	---	15.8	309.9	12.3	0.9	84.3	97.6	0.1	97.7	3.4	208.8	212.2
Mar.-May	212.2	---	14.8	227.0	10.2	26.9	77.9	115.0	0.1	115.1	3.5	108.4	111.9
Mkt. year	132.6	373.7	45.7	552.0	49.8	31.6	358.2	439.6	0.5	440.1	3.5	108.4	111.9
1988/89:													
June-Aug.	111.9	217.6	12.3	341.8	21.2	0.0	56.7	77.9	0.2	78.1	3.0	260.7	263.7
Sept.-Nov.	263.7	---	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	159.8
Mar.-May	159.8	---	18.6	178.5	15.0	23.0	42.2	80.1	0.1	80.2	2.4	95.9	98.3
Mkt. year	111.9	217.6	62.9	392.4	72.7	27.1	193.8	293.6	0.6	294.2	2.4	95.9	98.3
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	77.1	103.1	0.3	103.4	1.2	286.2	287.4
Dec.-Feb.	287.4	---	15.7	303.1	22.6	0.7	64.9	88.2	0.2	88.3	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	294.6	15.1	437.5	30.5	0.0	111.3	141.8	1.0	142.8	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	38.3	77.7	1.6	79.2	0.0	113.1	113.1
Mkt. year 1/	127.7	294.6	55.0	477.3	107.2	17.8	233.1	358.1	6.0	364.2	0.0	113.1	113.1
1993/94:													
Mkt. year 2/	113.1	249.8	65.0	428.0	----125.0----		205.0	330.0	5.0	335.0			93.0

--- = Not applicable.

1/ Preliminary. 2/ Projected.

Appendix table 11--Average prices received by farmers, United States, by month, and loan rate, 1984-93 1/

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July 2/	Aug.	Average 3/	Loan rate

\$/bu.														
Corn:														
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	1.63
1992	2.16	2.05	1.98	1.97	2.03	2.00	2.10	2.16	2.13	2.09	2.17		2.05-2.10	1.72

\$/cwt														
Sorghum:														
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	3.41	3.82		3.30-3.39	2.91

Year	June	July 2/	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Average 3/	Loan rate

\$/bu.														
Oats:														
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	1.20	0.83
1992	1.38	1.32	1.23	1.28	1.31	1.35	1.36	1.41	1.42	1.42	1.44	1.51	1.32	0.87
1993	1.43	1.43												

All barley:														
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	1.98	2.04	1.40
1993	1.96	1.88												

Year	June	July 2/	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May		

\$/bu.														
Feed barley:														
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	1.59	1.54	1.57	1.65	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	1.86	1.86	1.83		1.84	1.87	
1993	1.98	1.87												

Malting barley:														
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	1.79	
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	2.31	2.20	2.17		2.32	2.14	
1993	1.92	1.90												

1/ Prices do not include an allowance for loans outstanding and government purchases. 2/ July 1993 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 12--Cash prices at principal markets, 1986-93

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
\$/bu.													
Corn, no. 2 yellow, Central Illinois:													
1986	1.34	1.34	1.55	1.52	1.44	1.38	1.46	1.56	1.75	1.74	1.60	1.46	1.51
1987	1.50	1.64	1.74	1.78	1.84	1.90	1.92	1.92	1.97	2.66	2.85	2.70	2.03
1988	2.68	2.70	2.54	2.58	2.62	2.60	2.64	2.58	2.64	2.53	2.44	2.30	2.57
1989	2.35	2.25	2.29	2.29	2.29	2.34	2.44	2.64	2.73	2.70	2.68	2.54	2.46
1990	2.25	2.18	2.20	2.27	2.31	2.36	2.45	2.50	2.41	2.34	2.34	2.45	2.34
1991	2.39	2.41	2.41	2.42	2.49	2.58	2.64	2.50	2.51	2.51	2.31	2.17	2.45
1992	2.13	1.97	1.99	2.05	2.07	2.06	2.16	2.23	2.20	2.08	2.24		
Corn, no. 2 yellow, Gulf Ports:													
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		
Corn, no. 2 yellow, St. Louis:													
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		
Sorghum, no.2 yellow, Gulf Ports: 1/													
\$/cwt													
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		
Sorghum, no. 2 yellow, Kansas City:													
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		
Sorghum, no. 2 yellow, Texas High Plains: 2/													
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	3.91	3.86	4.04	4.14	4.05	3.95	4.47		
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:													
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											
Barley, no. 2 feed, Duluth: 3/, 4/													
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											
Oats, no. 2 heavy white, Minneapolis:													
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											

NQ - No quotes.

1/ Rail delivered to Texas Gulf. 2/ Reporting point changed from Texas High Plains to South Panhandle starting January 1991. 3/ Prior to June 1977 reported as barley, no. 3 or better. 4/ Reporting point changed from Minneapolis #2 feed to Duluth #2 feed beginning March 1987.

Appendix table 13--Feed-price ratios for livestock, poultry, and milk, by month, 1983-93

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July 1/	Aug.	Average
Hog/corn, U.S. basis 2/:													
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	15.20	16.20	15.70	16.50	18.10	18.90	19.10	20.40	17.68
1992	19.40	20.50	20.70	21.20	20.50	22.10	22.30	21.10	22.10	23.10	21.20		
Beef-steer/corn, Omaha 3/:													
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	21.00	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		
Milk/feed, U.S. basis 4/:													
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	1.65	1.64	1.65	1.63	1.51	1.47	1.43	1.40	1.37	1.36	1.15	1.19	1.45
1988	1.25	1.32	1.36	1.37	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	1.28	1.27	1.27	1.27	1.28	1.37	1.43	1.35
1991	1.49	1.53	1.57	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	1.39	1.36	1.35	1.41	1.45	1.46	1.45		
Egg/feed, U.S. basis 5/:													
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	6.60	6.40	6.20	7.10	6.90	6.30	6.50	5.70		
Broiler/feed, U.S. basis 6/:													
1983	2.50	2.80	2.90	2.90	3.10	3.10	3.10	2.70	2.70	2.70	3.00	2.70	2.85
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	3.40	3.50	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	3.30	3.40	3.04
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	3.10	3.20	3.40	3.30	3.40		
Turkey/feed, U.S. basis 7/:													
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	5.60	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	3.20	3.20	3.10	3.10	3.14
1992	3.10	3.20	3.30	3.20	3.00	2.90	3.10	3.00	3.10	3.00	3.10		

1/ July 1993 data are preliminary. 2/ Bushels of corn equal in value to 100 pounds of hog, live weight. 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 pound broiler, live weight. 7/ Pounds of turkey grower feed equal in value to 1 pound of turkey, live weight.

Appendix table 14--Price trends, selected feeds, and corn products

Item		Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.-Aug.
														Average 1/
-----\$/ton-----														
Wholesale, mostly bulk 2/:														
Soybean meal, 44% solvent, Decatur:	1990/91	176.99	172.50	163.00	164.80	155.70	163.60	165.75	171.50	171.00	171.10	169.70	177.60	168.60
	1991/92	191.90	183.00	178.00	170.70	172.70	174.30	174.20	174.80	182.75	181.70	173.90	174.40	177.70
	1992/93	175.10	168.60	170.90	176.40	175.60	167.50	172.40	175.60	181.70	181.30	217.60		
Soybean meal, high protein, Decatur:	1990/91	190.00	185.40	174.25	175.90	167.00	174.50	177.60	182.50	182.10	183.25	181.00	188.75	180.19
	1991/92	204.25	196.30	190.25	183.10	184.00	185.40	185.90	187.20	195.25	203.90	186.25	186.00	190.65
	1992/93	187.00	180.60	181.90	187.60	188.75	179.90	183.60	187.40	191.70	193.10	229.90		
Cottonseed meal, 41% solvent, Memphis:	1990/91	178.75	163.00	147.50	141.25	125.00	118.10	125.00	122.50	118.10	117.20	127.50	130.90	134.57
	1991/92	133.10	131.00	144.40	162.00	156.25	143.10	124.25	121.25	127.50	132.50	133.75	146.90	138.00
	1992/93	163.00	154.40	157.50	174.50	164.40	149.40	153.50	149.00	143.10	153.00	170.30		
Linseed meal, 34% solvent, Minneapolis:	1990/91	116.25	133.00	143.75	133.50	131.00	131.25	120.00	121.00	126.25	134.25	133.00	131.25	129.54
	1991/92	116.25	128.00	133.75	127.80	122.00	124.00	115.00	117.50	120.00	125.00	123.50	126.25	123.25
	1992/93	131.00	141.25	152.50	137.40	136.70	142.50	135.40	125.50	126.25	123.20	133.75		
Meat and bone meal, Kansas City 3/:	1990/91	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
	1991/92	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
	1992/93	217.20	216.60	208.60	214.50	225.00	214.25	215.80	221.90	208.90	208.50	268.40		
Fishmeal, 67% protein East Coast:	1990/91	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
	1991/92	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
	1992/93	404.00	412.50	412.50	410.00	NQ	NQ	NQ	NQ	333.75	334.00	375.00		
Corn gluten feed, Illinois pts.:	1990/91	83.50	92.60	94.25	98.40	114.20	103.75	114.25	101.70	95.90	94.25	92.00	90.50	97.94
	1991/92	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
	1992/93	107.30	108.50	106.10	115.20	108.10	107.00	89.00	80.50	81.60	82.70	81.90		
Corn gluten meal, 60% protein, IL. pts.:	1990/91	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
	1991/92	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
	1992/93	266.00	269.40	266.90	287.00	283.10	294.40	295.50	284.40	276.90	276.50	300.60		
Brewers' dried grains grains, Milwaukee:	1990/91	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
	1991/92	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
	1992/93	103.60	110.25	110.50	111.00	111.00	113.00	108.90	99.60	89.50	87.00	NQ		
Dist. dried grains, Lawrenceburg, IN.:	1990/91	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
	1991/92	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
	1992/93	130.00	110.25	134.00	135.00	135.00	135.00	131.00	123.00	106.00	106.00	106.00		
Feather meal, Arkansas pts.:	1990/91	186.25	202.00	223.75	227.00	207.50	167.50	204.50	206.00	189.40	170.75	173.20	178.80	194.72
	1991/92	202.50	198.80	205.00	227.50	221.40	209.75	226.00	198.10	191.25	195.20	192.50	201.75	205.81
	1992/93	223.80	240.00	261.25	276.00	271.25	265.00	235.50	246.75	227.50	223.20	256.25		
Wheat bran, Kansas City:	1990/91	73.60	79.30	78.75	70.60	79.10	69.40	70.40	56.30	51.90	52.75	55.70	63.50	66.78
	1991/92	61.60	72.90	84.40	81.80	76.90	78.40	77.40	60.10	59.10	62.10	60.25	56.50	69.29
	1992/93	68.30	79.60	86.40	92.30	81.00	62.50	69.70	59.60	54.75	55.80	58.10		
Wheat middlings, Kansas City:	1990/91	73.60	79.00	78.75	70.63	79.10	69.40	70.40	56.30	51.90	52.75	55.70	63.50	66.75
	1991/92	61.60	72.90	84.40	81.80	76.90	78.40	77.40	60.10	59.10	62.10	60.25	56.50	69.29
	1992/93	68.30	79.60	86.40	92.30	81.00	66.25	69.70	59.60	54.75	55.80	58.10		
Rice bran, f.o.b. mills, Arkansas:	1990/91	64.40	63.10	56.90	66.50	75.20	57.75	62.60	66.40	54.65	59.10	60.10	53.40	61.68
	1991/92	49.90	46.60	59.90	75.50	77.50	60.50	52.70	52.60	50.10	51.90	56.75	49.20	56.93
	1992/93	42.50	45.10	62.60	76.75	79.90	57.60	53.80	51.00	32.75	45.30	50.60		
Hominy feed, Illinois pts.:	1990/91	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
	1991/92	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
	1992/93	76.40	72.50	67.10	66.90	65.60	60.00	60.80	66.90	69.40	65.70	73.25		

See footnotes at end of table.

Continued--

Appendix table 14--Price trends, selected feeds, and corn products--continued

Item		Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.-Aug. Average 1/
-----\$/ton-----														
Wholesale, mostly bulk 2/:														
Alfalfa meal, dehyd.	1990/91	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
Kansas City:	1991/92	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
	1992/93	96.20	99.50	102.75	106.60	111.00	112.00	115.40	124.10	125.00	111.00	109.00		
Cane molasses, New Orleans:	1990/91	70.60	72.25	71.25	67.50	67.50	67.50	67.50	67.50	67.50	67.50	67.50	67.50	68.47
	1991/92	65.25	65.00	65.00	67.00	65.00	65.00	65.00	65.00	63.75	62.50	62.50	62.50	64.46
	1992/93	58.75	55.30	55.00	61.30	55.00	55.00	55.00	55.00	55.00	55.00	NA		
Molasses beet pulp, Los Angeles 4/:	1990/91	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
	1991/92	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
	1992/93	113.20	102.80	98.90	108.10	114.50	114.75	112.00	109.00	108.80	108.40	NA		
-----cents/lb.-----														
Animal fat, Kansas City 5/:	1990/91	9.90	10.50	10.70	11.50	11.60	11.20	10.60	10.50	10.00	10.00	10.70	10.50	10.64
	1991/92	10.50	10.20	9.60	9.60	10.00	10.00	10.00	10.30	10.20	NQ	NQ	NQ	20.77
	1992/93	11.40	NQ	NQ	NQ	NQ	NQ	12.00	12.80	NQ	NQ	NQ		
-----\$/ton-----														
Urea, 42% nitrogen, Fort Worth:	1990/91	202.00	208.50	198.50	185.00	185.00	185.00	187.00	185.00	185.00	185.00	185.00	183.33	189.53
	1991/92	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	190.00	190.00	190.00	182.50
	1992/93	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00	190.00		
-----\$/bu.-----														
Corn, no. 2 white, Kansas City:	1990/91	2.98	2.85	2.86	2.91	2.95	2.95	2.95	2.96	3.10	3.12	3.13	2.96	2.98
	1991/92	2.80	2.80	2.73	2.64	2.66	2.73	3.30	3.54	3.55	3.60	3.54	2.79	3.06
	1992/93	2.70	2.61	2.55	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45		
-----\$/cwt-----														
Prices paid, U.S. basis 6/ 7/:														
Soybean meal, 44%:	1990/91	---	13.10	---	---	12.50	---	---	12.70	---	---	12.70	---	12.75
	1991/92	---	13.40	---	---	13.00	---	---	13.00	---	---	13.20	---	13.15
	1992/93	---	12.90	---	---	13.60	---	---	13.20	---	---	13.90	---	13.40
Cottonseed meal, 41%:	1990/91	---	14.90	---	---	14.60	---	---	14.00	---	---	13.80	---	14.33
	1991/92	---	13.40	---	---	14.00	---	---	13.80	---	---	13.90	---	13.78
	1992/93	---	14.50	---	---	14.70	---	---	14.60	---	---	14.90	---	14.68
Wheat bran:	1990/91	---	10.70	---	---	10.70	---	---	10.80	---	---	10.60	---	10.70
	1991/92	---	10.60	---	---	10.90	---	---	10.80	---	---	10.80	---	10.78
	1992/93	---	10.70	---	---	11.00	---	---	10.90	---	---	10.90	---	10.88
-----\$/ton-----														
Broiler grower feed:	1990/91	---	210.00	---	---	211.00	---	---	209.00	---	---	202.00	---	208.00
	1991/92	---	208.00	---	---	205.00	---	---	212.00	---	---	211.00	---	209.00
	1992/93	---	203.00	---	---	206.00	---	---	209.00	---	---	204.00	---	205.50
Laying feed:	1990/91	---	199.00	---	---	198.00	---	---	195.00	---	---	189.00	---	195.25
	1991/92	---	199.00	---	---	202.00	---	---	200.00	---	---	201.00	---	200.50
	1992/93	---	196.00	---	---	198.00	---	---	201.00	---	---	201.00	---	199.00
Turkey grower feed:	1990/91	---	237.00	---	---	235.00	---	---	237.00	---	---	227.00	---	234.00
	1991/92	---	241.00	---	---	239.00	---	---	239.00	---	---	244.00	---	240.75
	1992/93	---	242.00	---	---	243.00	---	---	248.00	---	---	248.00	---	245.25

See footnotes at end of table.

Continued--

Appendix table 14--Price trends, selected feeds, and corn products--continued

Item		Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.-Aug. Average 1/
		-----\$/ton-----												
Prices paid, U.S. basis 6/ 7/:														
Chick starter:	1990/91	---	215.00	---	---	217.00	---	---	222.00	---	---	218.00	---	218.00
	1991/92	---	225.00	---	---	227.00	---	---	228.00	---	---	228.00	---	227.00
	1992/93	---	227.00	---	---	219.00	---	---	224.00	---	---	228.00	---	224.50
Dairy feed, 16%:	1990/91	---	181.00	---	---	179.00	---	---	178.00	---	---	172.00	---	177.50
	1991/92	---	176.00	---	---	179.00	---	---	179.00	---	---	178.00	---	178.00
	1992/93	---	177.00	---	---	181.00	---	---	179.00	---	---	179.00	---	179.00
Beef cattle conc., 32-36% protein 8/:	1990/91	---	251.00	---	---	249.00	---	---	249.00	---	---	245.00	---	248.50
	1991/92	---	248.00	---	---	250.00	---	---	249.00	---	---	250.00	---	249.25
	1992/93	---	254.00	---	---	261.00	---	---	261.00	---	---	264.00	---	260.00
Hog concentrate, 38-42% protein 8/:	1990/91	---	302.00	---	---	294.00	---	---	295.00	---	---	297.00	---	297.00
	1991/92	---	312.00	---	---	301.00	---	---	304.00	---	---	302.00	---	304.75
	1992/93	---	303.00	---	---	311.00	---	---	305.00	---	---	324.00	---	310.75
		-----50 lb.-----												
Stock salt 8/:	1990/91	---	3.53	---	---	3.57	---	---	3.58	---	---	3.58	---	3.57
	1991/92	---	3.58	---	---	3.57	---	---	3.60	---	---	3.63	---	3.60
	1992/93	---	3.65	---	---	3.51	---	---	3.57	---	---	3.58	---	3.58
		-----\$/cwt-----												
Corn products, wholesale 9/:														
Corn meal, yellow, New York:	1990/91	13.40	13.53	13.54	13.50	13.51	13.62	13.62	13.69	13.43	12.82	13.20	13.62	13.46
	1991/92	13.40	13.46	13.32	13.36	13.42	13.75	13.77	13.51	13.56	13.79	13.48	13.25	13.51
	1992/93	13.30	13.10	13.18	13.14	13.09	13.07	13.33	13.66	13.65	13.51	13.83		
Brewers' grits, Chicago:	1990/91	10.01	10.02	10.02	9.96	9.97	10.05	10.09	10.18	9.92	9.79	9.69	10.11	9.98
	1991/92	9.90	9.95	9.81	9.85	9.91	10.07	10.06	9.85	9.90	10.13	9.82	9.59	9.90
	1992/93	9.64	9.44	9.51	9.48	9.43	9.41	9.67	9.88	9.88	9.74	10.07		
		-----cents/lb.-----												
Syrup, Midwest/West:	1990/91	12.01	10.44	10.44	10.44	10.44	10.44	11.36	12.73	12.73	12.73	12.73	12.73	11.60
	1991/92	12.86	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.23	13.20
	1992/93	13.23	9.13	9.13	9.03	8.88	8.88	9.01	9.80	10.41	10.41	11.91		
Sugar, dextrose, Midwest:	1990/91	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
	1991/92	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
	1992/93	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
High-fructose 42% in tank cars, Midwest:	1990/91	16.28	13.66	12.78	12.78	12.78	12.78	13.16	14.70	14.70	15.34	17.25	17.25	14.46
	1991/92	17.25	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	16.61	16.61	15.23
	1992/93	16.61	12.78	12.78	12.78	12.78	12.78	12.38	11.69	12.46	12.46	15.02		
		-----\$/cwt-----												
Corn starch, f.o.b. Midwest:	1990/91	11.27	10.92	10.62	10.62	10.73	10.86	10.86	11.01	11.41	11.41	11.41	11.11	11.02
	1991/92	11.56	11.35	11.05	10.50	10.38	10.62	10.92	11.22	11.22	11.22	11.32	11.02	11.03
	1992/93	10.62	10.62	10.17	10.17	10.37	10.37	10.37	10.82	11.27	11.27	11.27		

--- = Not applicable.

NQ = No quotes.

1/ 1992/93 preliminary. 2/ Grain and Feed Market News, Agricultural Marketing Service, USDA, except urea, which is from Feedstuffs, Miller Publishing Co., Minneapolis, Minnesota. 3/ Reported as Central U.S. starting December 1991. 4/ Reported as N. California & Central Areas starting November 1991. 5/ Reported as Central U.S. starting November 1991. 6/ Agricultural Prices, Agricultural Statistics Board, USDA. 7/ Prices-paid data are available on a quarterly basis only. 8/ Prices previously published in cwt. 9/ Milling and Baking News, Kansas City, Missouri, except starch which is from industry sources.

Appendix table 15--Corn, sorghum, barley, and oats exports, 1990/91 to date 1/

Year and month	-----Corn-----			Year and month	-----Barley-----		-----Oats-----	
	Grain only	Total	Sorghum		Grain only	Total	Grain only	Total
Bushels				Bushels				
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
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	156,156,803	23,555,198	June	6,112,452	7,571,349	337,169	451,272
Oct.	139,423,233	141,952,722	19,463,829	July	5,114,631	5,669,888	319,670	437,796
Nov.	194,133,827	196,628,374	13,422,100	Aug.	7,136,040	7,769,056	376,990	658,652
1st Qtr.	487,514,130	494,737,899	56,441,127	1st Qtr.	18,363,123	21,010,293	1,033,830	1,547,720
Dec.	173,102,447	175,021,686	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	469,170,521	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	35,484,351	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	87,323,128	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				Apr.	6,537,531	8,851,068	820,188	925,617
Aug.				May	5,768,991	6,935,036	304,789	460,022
4th Qtr.				4th Qtr.	17,964,868	23,110,838	1,569,622	1,900,589
Total				Total	80,291,690	92,246,637	6,018,205	7,882,579
1993/94:				1993/94:				
Sept.				June	3,878,573	5,772,239	636,998	767,269

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 16--Corn, sorghum, barley, and oats imports, 1990/91 to date 1/

Year and month	Corn			Sorghum	Year and month	Barley		Oats	
	Grain only	Total				Grain only	Total	Grain only	Total
Bushels				Bushels					
1990/91:					1990/91:				
Sept.	29,118	967,853	5,551		June	603,614	691,947	6,675,422	6,766,369
Oct.	172,220	1,396,469	0		July	309,116	547,246	5,841,249	5,908,451
Nov.	683,773	2,131,564	60		Aug.	117,460	357,140	4,998,143	5,090,611
1st Qtr.	885,111	4,495,886	5,611		1st Qtr.	1,030,190	1,596,333	17,514,814	17,765,432
Dec.	90,489	1,059,442	0		Sept.	117,510	200,053	2,240,097	2,358,047
Jan.	100,811	1,255,105	0		Oct.	293,888	485,842	4,464,410	4,636,239
Feb.	83,751	1,095,646	0		Nov.	839,438	1,014,543	4,970,603	5,078,808
2nd Qtr.	275,051	3,410,193	0		2nd Qtr.	1,250,836	1,700,438	11,675,110	12,073,094
Mar.	80,937	1,201,768	60,462		Dec.	1,288,335	1,569,231	6,027,830	6,118,040
Apr.	214,595	1,285,191	167		Jan.	1,194,977	1,306,682	2,543,485	2,642,746
May	487,548	1,534,735	12		Feb.	1,723,635	1,836,340	9,675,744	9,822,449
3rd Qtr.	783,080	4,021,694	60,641		3rd Qtr.	4,206,947	4,712,253	18,247,059	18,583,235
June	155,046	1,151,719	0		Mar.	2,248,034	2,423,555	4,618,596	4,763,254
July	423,345	1,586,421	679		Apr.	3,369,631	3,401,987	3,767,262	3,887,601
Aug.	893,816	1,996,622	1,319		May	1,373,891	1,581,999	7,585,984	7,719,294
4th Qtr.	1,472,207	4,734,762	1,998		4th Qtr.	6,991,556	7,407,541	15,971,842	16,370,149
Total	3,415,449	16,662,535	68,250		Total	13,479,529	15,416,565	63,408,825	64,791,910
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	6,232,375	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					Apr.	548,083	705,239	7,656,387	7,939,956
Aug.					May	997,906	1,088,029	7,607,251	7,818,451
4th Qtr.					4th Qtr.	1,867,417	2,259,543	17,242,887	17,997,230
Total					Total	11,404,616	12,882,661	54,977,793	57,420,765
1993/94:					1993/94:				
Sept.					June	951,500	1,133,778	8,118,931	8,329,893

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 17--Shipments of grain on the Illinois waterway and the Mississippi River (Locks 11-22), 1981/82-1992/93

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			2.9

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

Appendix table 18--Weekly average of rail car loadings of grain and soybeans, 1980/81-1992/93

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Carloads													
1980/81	32,127	24,114	31,450	28,106	34,396	31,108	27,657	23,490	21,291	28,014	22,162	26,152	27,506
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	25,797	30,787	31,497	29,667	29,642	30,707	30,065	28,049	24,694	24,715	25,934		28,323

Source: Association of American Railroads.

Appendix table 19--Rail-freight-rate index for grain, crop years 1980/81-1992/93

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
December 1984=100													
1980/81	78.3	78.8	78.8	79.2	83.1	84.1	85.0	84.8	84.8	85.7	88.0	88.5	83.3
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			113.7

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

Appendix table 20--Hay (all): Acreage, supply, and disappearance, 1986/87-1993/94

Item	Unit	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
Acres harvested	Mil. acres	62.3	60.1	65.1	63.3	61.4	62.5	59.6	60.1
Yield per acre	Tons	2.49	2.45	1.94	2.30	2.39	2.45	2.50	2.51
Carryover (May 1)	Mil. tons	26.7	32.3	27.1	17.5	27.1	27.0	28.6	21.2
Production	"	155.4	147.5	126.0	145.5	146.8	153.3	149.1	150.8
Supply	"	182.1	179.8	153.1	163.0	173.9	180.3	177.7	172.0
Disappearance	"	149.9	152.7	135.6	135.9	146.9	152.0	156.6	NA
Roughage-consuming animal units (RCAU's)	Mil. units	78.3	76.3	75.5	75.5	75.5	76.4	77.0	78.1
Supply per RCAU	Tons	2.33	2.36	2.03	2.16	2.30	2.36	2.32	2.20
Disappearance per RCAU	"	1.91	2.00	1.80	1.80	1.94	1.98	2.03	NA

NA - Not available.

Appendix table 21--Hay: Average prices received by farmers, United States, by month, 1983/84-1992/93 1/

Year	May	June	July 2/	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Average 3/
\$/ton													
Alfalfa:													
1983/84	83.80	78.30	77.40	77.40	79.10	82.40	80.10	81.70	82.00	85.10	84.40	84.30	81.33
1984/85	87.10	80.10	75.60	72.80	73.90	76.70	74.30	77.50	76.20	76.40	75.80	76.70	76.93
1985/86	85.50	74.90	72.50	68.10	70.70	70.50	67.70	69.10	70.20	71.30	72.00	69.80	71.86
1986/87	69.50	64.10	61.40	60.10	58.80	59.90	57.90	60.70	58.80	61.10	62.80	67.90	61.92
1987/88	76.30	66.90	65.10	66.30	67.60	67.70	63.70	67.40	66.50	69.60	72.50	76.90	69.31
1988/89	84.50	81.90	87.90	86.10	87.30	90.30	92.20	94.40	96.70	99.40	105.00	107.00	93.83
1989/90	105.00	96.50	89.90	87.50	91.20	89.80	91.30	92.50	93.30	95.20	96.70	103.00	93.80
1990/91	104.00	92.60	89.40	86.30	89.20	90.70	85.70	84.60	84.20	84.80	85.90	90.10	86.60
1991/92	86.50	80.10	75.40	74.00	72.30	71.20	71.00	72.00	72.30	74.50	72.90	73.70	74.60
1992/93	80.00	80.00	75.80	72.80	73.80	74.70	78.30	79.10	80.80	83.70	84.30	88.20	78.40
1993/94	93.20	87.40	83.40										
Other hay:													
1983/84	58.90	56.10	54.30	52.90	57.80	59.50	62.10	64.30	63.30	63.80	64.90	66.50	60.37
1984/85	64.90	63.40	61.80	60.90	62.40	62.00	62.60	64.80	64.80	64.70	61.70	58.40	62.70
1985/86	58.70	54.00	57.00	58.40	58.60	58.20	55.30	56.00	56.10	56.00	54.80	54.90	56.50
1986/87	54.00	50.90	50.00	51.00	52.70	50.00	49.70	49.40	48.10	50.90	48.30	48.20	50.27
1987/88	51.90	50.80	49.60	51.00	51.80	51.10	52.30	51.10	52.20	51.50	51.70	51.90	52.09
1988/89	59.30	62.00	65.10	68.10	68.90	69.00	70.00	69.50	70.00	72.10	73.60	76.70	70.03
1989/90	78.80	69.00	63.60	63.10	66.10	62.80	63.00	63.00	64.00	62.50	63.70	65.10	65.50
1990/91	66.10	62.90	60.40	62.90	63.20	63.50	63.60	62.40	61.30	60.20	61.60	60.10	65.10
1991/92	59.90	58.00	59.20	61.20	62.00	60.00	59.60	60.00	59.20	62.30	61.90	59.00	60.50
1992/93	56.40	58.60	53.60	56.10	55.50	57.40	58.30	58.00	59.60	63.50	61.60	63.40	57.60
1993/94	61.60	59.00	58.00										
All hay:													
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	74.70	74.50	69.90	69.20	69.20	70.30	73.40	73.60	75.10	77.70	78.90	83.80	73.20
1993/94	86.30	80.50	77.20										

1/ Revised prices reported for mid-month. 2/ July 1993 data are preliminary. 3/ U.S. season average prices weighted by monthly marketings.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

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