

United States
Department of
Agriculture

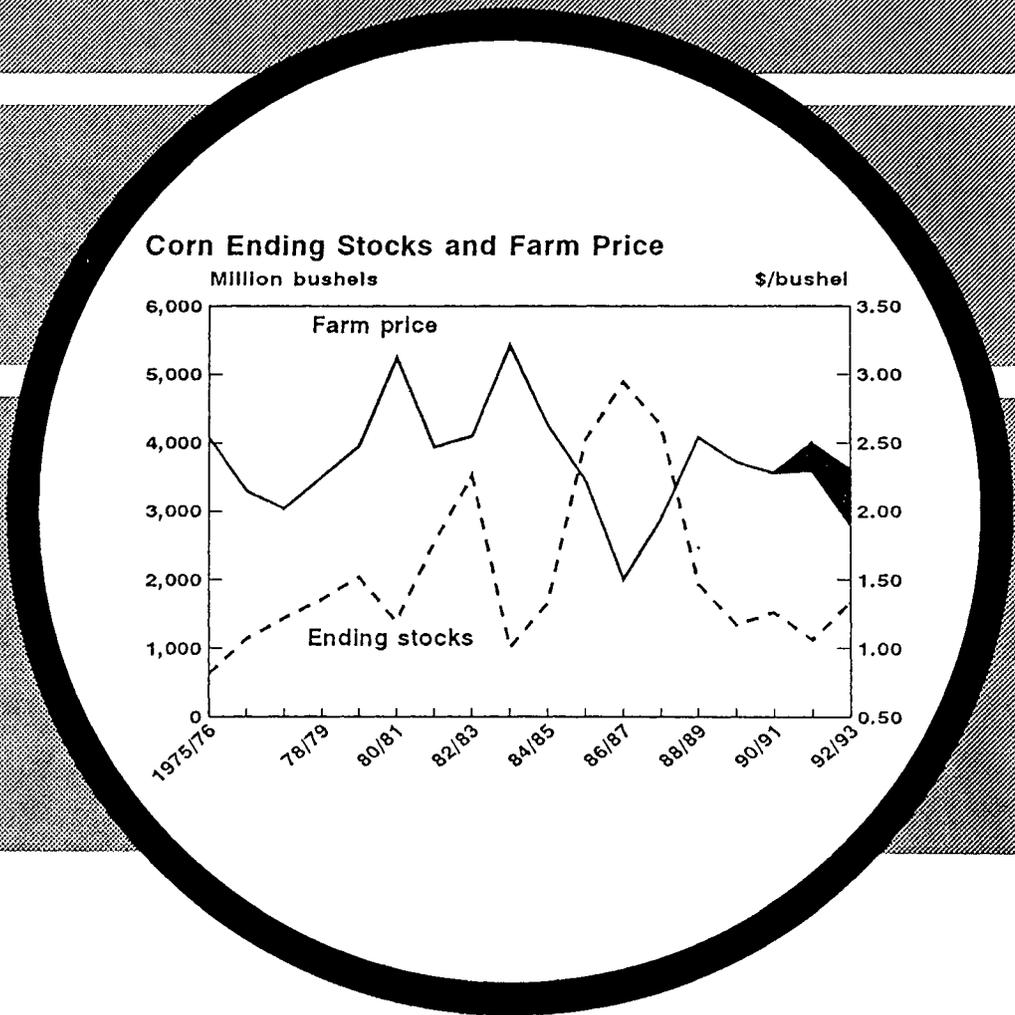
Economic
Research
Service

FDS-322
May 1992

Feed

Situation and Outlook Report

1992
11/10/92
June 1992



Contents

Feed Situation and Outlook.
Commodity Economics Division,
U.S. Department of Agriculture,
May 1992, FdS-322.

Approved by the World Agricultural
Outlook Board May 22, 1992. The next
summary will be released August 25,
1992. Situation and Outlook text may
be accessed electronically. For details,
call 1-202-720-5505.

Feed Situation and Outlook is published
three times a year and supplemented by
a yearbook. Subscriptions are available
from ERS-NASS, P.O. Box 1608,
Rockville, MD 20849-1608. Or call,
toll free, 1-800-999-6779 (U.S. and
Canada only), weekdays, 8:30-5:00 ET.

Time to renew? Your subscription to
Feed Situation and Outlook ex-pires in
the month and year shown on the top
line of the address label. If your sub-
scription is about to expire, renew to-
day. Call 1-800-999-6779.

Summary	3
Feed Grain Supply and Use	4
Corn	5
Sorghum	7
Barley	8
Oats	9
Hay	10
Feed Demand	11
Food Seed and Industrial Use of Corn	12
Transportation Update	14
World Coarse Grain Outlook	18
Special Article	
Potential El Niño Impacts on U.S. Feed Grain Production	23
List of Tables and Figures	25

Situation Coordinator
Thomas Tice (202)219-0840

Principal Contributors
Allen Baker (202)219-0840
Jim Cole (202) 219-0840
T.Q. Hutchinson (202) 219-0840
Peter Riley (202) 219-0824
Larry Van Meir (202) 219-0840
Jenny Gonzales (202) 219-0840

Word Processing
Carolyn Liggon (202) 219-0840

Summary

U.S. Feed Grain Production To Rebound in 1992/93

More area and a return to trend yields are expected to boost U.S. feed grain production by 14 percent to 249 million tons in 1992/93. The higher output will more than offset a 12-million-ton decline in carryin stocks. Total feed grain supplies for 1992/93 are initially projected at 286 million tons, up nearly 18 million tons from 1991/92 supplies.

Feed grain use in 1992/93 is projected to increase nearly 4 million tons to 236 million. An improvement in general economic conditions, lower feed grain prices, and further increases in meat production are the principal factors improving demand. Domestic feed grain use is projected to increase over 4 million tons to 189 million, with most of the gain due to higher feed and residual use. Prospects for exports are largely unchanged from the 1991/92 forecast of nearly 48 million tons.

Planting progress through May 17 was ahead of the previous 5-year average. Corn planting in the 17 major producing States was reported at 91 percent complete, compared with only 72 percent last year. Sorghum planting was 45 percent complete, up from last year's 32 percent in the 12 major States.

U.S. corn output is projected at 8.6 billion bushels, up 15 percent from 1991/92. With a carryin forecast at 1.1 billion bushels, corn supplies for 1992/93 are projected at 9.7 billion, up 700 million from 1991/92. Total disappearance of corn is expected to increase 140 million bushels to just over 8 billion. Food, seed, and industrial use is projected to account for 40 million bushels of the higher use, and feed and residual use the remainder. Projected corn exports of 1.55 billion for 1992/93 are unchanged from the 1991/92 forecast.

Transportation services have been adequate so far in 1991/92, although exports of grains and soybeans are more

than 4 percent above the previous year. A reduction of projected exports of grains and soybeans in 1992/93 suggests that transportation services will continue to be sufficient.

World production and use of coarse grains are expected to increase in 1992/93. However, production is likely

to exceed consumption, leading to an increase in carryout stocks of 14.5 million tons, totalling 144 million. World trade is projected to contract slightly in 1992/93, mainly due to reduced imports by the former Soviet Union. However, the U.S. share of the world market is expected to increase slightly to 56 percent from 53 percent for 1991/92.

FEED GRAIN SUMMARY

Year 1/	1988/89	1989/90	1991/90	1991/92	1992/93	Record prod. 2/ 1985/86	Lowest stocks 2/ 1975/76
TOTAL FEED GRAINS							
	Million acres					Mil. acres	
Planted	101.8	106.1	103.4	104.6		128.0	122.6
Harvested	80.6	91.0	89.5	91.9		111.7	104.7
Yield (ton/ac)	1.85	2.43	2.58	2.38		2.46	1.77
	Million metric tons					Mil. metric tons	
Beg. stocks	133.6	65.9	45.5	47.7	35.5	57.5	21.1
Prod.	149.3	221.0	230.5	218.2	248.7	274.3	185.1
Supply	284.2	288.2	277.3	268.0	285.9	332.6	206.5
Domestic							
disp.	157.2	173.0	178.1	184.6	188.7	133.7	133.7
FSI	38.7	40.3	40.7	42.7	43.8	35.0	17.9
Feed/res.	118.5	132.7	137.5	141.9	144.9	135.1	115.7
Exports	61.1	69.7	51.5	47.8	47.6	36.1	48.8
End. stocks	65.9	45.5	47.7	35.5	49.7	126.4	23.9

SECTOR	Corn		Sorghum		Barley		Oats	
	91/92	92/93	91/92	92/93	91/92	92/93	91/92	92/93
	Million acres							
Planted	76.0		11.0		8.9		8.7	
Harvested	68.8		9.8		8.4		4.8	
Yield (bu/ac)	108.6		59.0		55.2		50.6	
	Million bushels							
Beg. stocks	1521	1121	143	107	135	125	171	113
Prod.	7474	8575	579	700	464	420	243	275
Supply	9016	9706	722	807	625	565	484	453
Domestic								
disp.	6345	6485	370	440	400	360	370	340
FSI	1445	1485	15	15	175	175	125	130
Feed/res.	4900	5000	355	425	225	185	245	210
Exports	1550	1550	245	245	100	90	1	1
End. stocks	1121	1671	107	122	125	115	113	113
Stocks-use ratio, %	14.2	20.8	17.4	17.8	25.0	25.5	30.5	33.1
Avg. farm price, \$/bu	2.30-2.50	1.90-2.30	2.20-2.40	1.75-2.15	2.10	1.85-2.25	1.20	1.05-1.45

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

Feed Grain Supplies To Rebound in 1992/93

Total feed grain production in 1992/93 is projected to increase 14 percent to nearly 249 million tons. A 2.5 percentage point cut in the corn, sorghum, and barley acreage reduction program (ARP) requirement and a rebound in corn yields are the primary factors affecting the change in output.

Feed grain supplies for 1992/93 are projected to increase nearly 18 million tons to 285.9 million. Higher output, 248.7 million tons, is expected to more than offset a 12-million-ton decline in forecast carryin stocks of 35.5 million tons, the lowest carryin stocks since 1976/77. Total use of feed grains is projected to increase modestly in 1992/93 due to higher domestic disappearance. The export outlook is little changed from 1991/92.

Feed Grain Planted Area To Increase

Based on the March *Prospective Plantings* report, farmers intend to plant 108 million acres to feed grain crops, 3 million more than last year and the most since 1986/87. Planting intentions for corn and sorghum are up 4 and 10 percent to 79.0 and 12.1 million acres, respectively. In contrast, area planted to barley and oats is expected to drop 7 and 4 percent to 8.3 million acres each. However, producers intend to harvest 2 percent more oats than a year ago.

The prospective shifts in planted area for 1992/93 primarily reflect changes in program options and relative market returns. The cut in the ARP from 7.5 percent to 5.0 percent for corn, sor-

ghum, and barley permit program participants to increase their plantings from 1991/92 levels. For corn and sorghum, the *Prospective Plantings* report indicates that, overall, producers intend to take advantage of the higher permitted planting. On a regional basis, relative expected crop returns likely played a crucial role in the reduction of barley plantings and the increase in harvesting intentions for oats. (See individual crop section analyses for more on farmers' planting intentions.)

Corn and sorghum plantings have proceeded ahead of the previous 5-year pace. As of May 17, 1992, 91 percent of the corn acreage in the 17 major producing States had been planted, compared to only 72 percent last year and the previous 5-year average of 81 percent. Sorghum planting was 46 percent complete, compared with a 32-percent average. In each of the major producing States, Kansas, Missouri, Nebraska and Texas, sorghum planting progress is well ahead of the 5-year average.

Higher Domestic Feed Grain Use Projected for 1992/93

Feed grain use in 1992/93 is projected to increase nearly 4 million tons to 236.2 million. As forecast for 1991/92, do-

mestic demand is responsible for the increased disappearance. A recovery in general economic conditions and further increases in meat production are two principle factors improving demand. Food, seed, and industrial (FSI) use of feed grains is projected to increase 1.1 million tons to 43.8 million, while forecast feed and residual use of 144.9 million tons is up 3 million tons. A decline in projected world coarse grain trade would limit U.S. feed grain exports to 47.6 million tons, marginally below the 1991/92 forecast.

Since projected feed grain use of 236 million tons falls short of production, ending stocks are up in 1992/93. The projected ending stocks of 49.7 million tons would represent a gain of over 14 million tons during 1992/93. As a result of buildup in carryover stocks, feed grain prices are expected to weaken. Prices received by farmers for corn in 1992/93 are projected to average between \$1.90 and \$2.30 per bushel, down from the forecast of \$2.30-2.50 for the 1991/92 crop.

[Tom Tice, (202) 219-0840]

Corn Production Up 15 Percent On Higher Plantings and Yields

A 4-percent increase in prospective plantings combined with trend yields would increase 1992/93 corn production 15 percent from last year to nearly 8.6 billion bushels.

Farmers' plans for the 1992/93 crop year were released in the March *Prospective Plantings* report. Producers intend to plant 79 million acres of corn, 3 million more than actual plantings for 1991. Over half of this increase is in Minnesota and Iowa where a wet spring in 1991 limited corn planting. Farmers in Minnesota intend to plant 7.1 million acres, up 500,000 from 1991. Iowa farmers indicated they would plant 13.3 million acres of corn, up 1.1 million. Gains in prospective corn plantings in other major producing States--Indiana, Nebraska, Missouri, and Ohio--are up between 2.2 and 3.5 percent.

The first report of farmers' actual plantings will be released on June 30. Changes in relative expected crop returns (due to market conditions) and spring weather will be two major factors influencing changes, if any, from the March *Prospective Plantings*. In addition, some winter wheat land which has been plowed up because of poor stands in Indiana, Ohio, and Illinois will likely be planted to spring crops, including corn.

As of May 17, 97 percent of the corn crop in Iowa had been planted, compared with 59 percent last year and the 5-year average of 86 percent. Planting progress was also well ahead of average in Minnesota, with 94 percent in the ground, compared with 51 percent a year ago and a 79-percent average. Ohio was the only Corn Belt State reporting planting progress below last year.

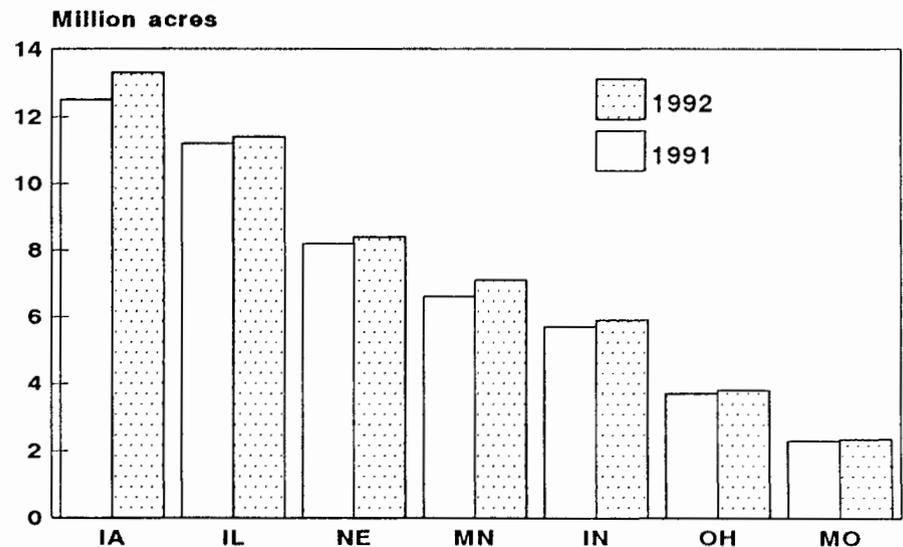
Based on the assumption of trend yields, average corn yields for 1992 will rebound from last year's depressed levels. Higher yields and more planted acreage imply a corn crop near 8.6 billion bushels, the second largest on record. With carryin stocks of 1.1 billion bushels, 1992/93 corn supplies are projected at 9.7 billion bushels, up nearly 8 percent.

1992/93 Corn Prices To Weaken On Larger Supplies

The large increase in projected corn supplies will weigh on the market because

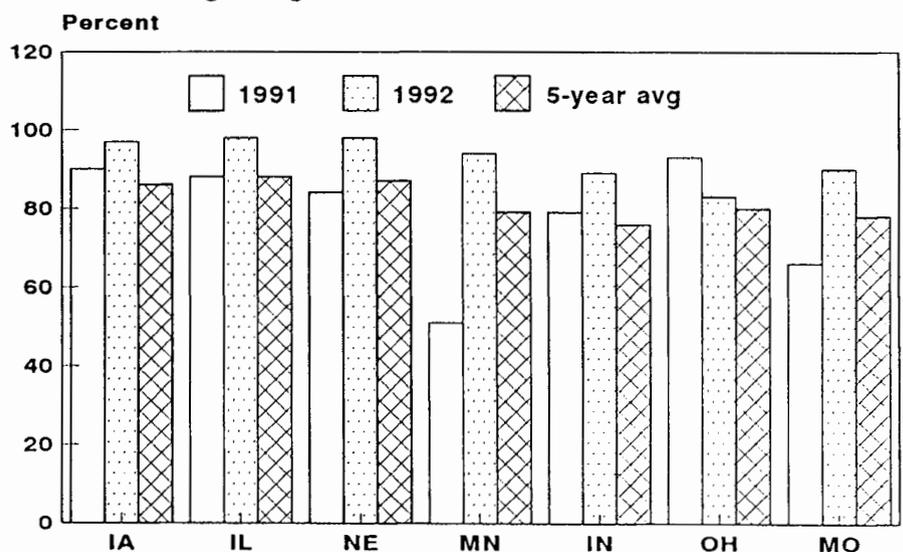
use is expected to fall well short of production. Ending corn stocks for 1992/93 are projected at 1.67 billion bushels, 550 million higher than the forecast carryin level. Corn prices re-

Figure 1
Corn Planting Intentions



As of March 1.

Figure 2
Corn Planting Progress



As of May 17.

ceived by farmers are expected to average between \$1.90-2.30 per bushel, compared with a \$2.30-2.50-range forecast for 1991/92.

Domestic use of corn is projected to increase as a result of lower corn prices and an improving economy. FSI use of corn in 1992/93 is projected to reach 1.485 billion bushels, up 3 percent from 1991/92's forecast 1.445 billion. Feed use of corn is also expected to increase as meat output continues to expand and supplies of other feed grains continue to be tight. In addition, wheat feeding is expected to remain low due to strong wheat prices relative to corn. Feed and residual use of corn is projected to reach 5 billion bushels in 1992/93, up 100 million from the 1991/92 estimate.

Prospects for corn exports in 1992/93 are not optimistic despite lower prices. Coarse grain production is likely to increase outside the U.S. and world trade is expected to decline. A notable increase in projected coarse grain production for the former USSR implies a weaker import demand for corn by them. However, drought in southern Africa and reduced imports of wheat for feeding in Korea are providing some offsetting demand. Overall, U.S. corn exports in 1992/93 are likely to remain near the 1991/92's forecast of 1.55 billion bushels.

1991/92 Update

Weak overall world import demand for coarse grains and increased foreign competition have been reflected in 1991/92 U.S. exports. December through February exports of 362 million bushels were more than 100 million below a year earlier, following a stronger-than-year-earlier export pace in the September-November period. Feed and residual use of corn, estimated at 1,288.4 million bushels for the December-February quarter, declined from the first quarter and a year ago. However, tight stocks of other feed grains and high wheat prices are expected to boost corn feeding for the remainder of 1991/92.

The long-standing growth trend in FSI use of corn continued through the second quarter. FSI disappearance of 337 million bushels is up over 7 percent from the second quarter of 1990/91. Growth in starch output and fuel alcohol continues to provide strong FSI usage. Total corn disappearance during the second quarter of 1,986.6 million bushels was off nearly 20 percent from September-December and nearly 8 percent below second-quarter 1990/91. Although total disappearance of corn is down through the first half of 1991/92, stocks remain below a year earlier. Stocks of corn on March 1, 1992, of 4,558.9 million bushels were down 5 percent from a year ago. As stocks have tightened, corn prices rose seasonally through the winter quarter. However, given the good start to 1992/93 corn, prices may have already begun their seasonal decline.

Stocks of corn on March 1 were estimated at 4,558.9 million bushels, of which 199.2 million were held in Commodity Credit Corporation (CCC) inventory. CCC stocks had declined to 152.8 million bushels on May 1. Of that amount, 41.6 million bushels have been designated for Section 416 disaster as-

sistance and emergency feed assistance. Thus, only 111.2 million bushels of CCC stocks remained uncommitted and available for catalog sales.

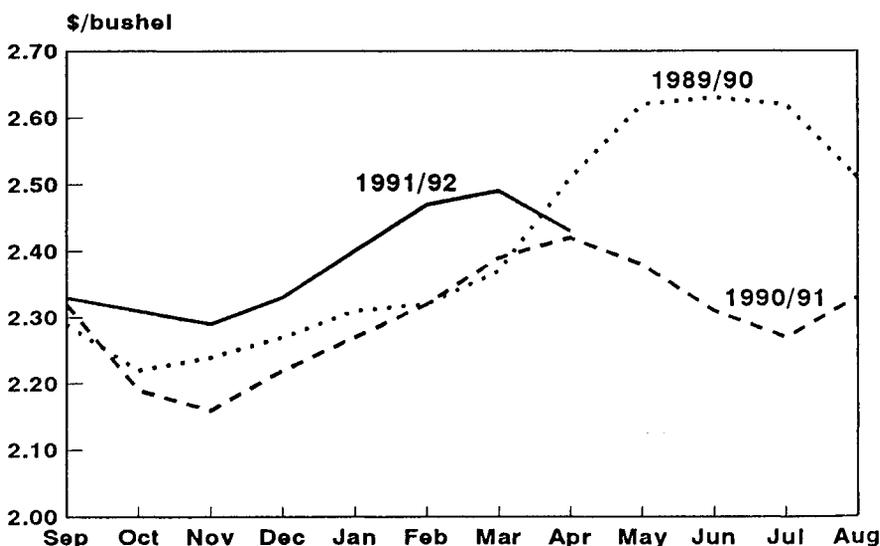
[Tom Tice, (202) 219-0840]

Table 1--Corn supply, disappearance, and stocks, December-February

Item	1990/91	1991/92
Million bushels		
Supply:		
Beg. stocks, Dec. 1	6,940.3	6,541.1
CCC	205.9	249.7
FOR	381.1	0.9
Loan	435.3	531.5
Free	5,918.0	5,759.0
Imports (Dec.-Feb.)	0.3	4.4
Total	6,940.6	6,545.5
Disappearance:		
FSI	312.5	336.6
Exports	470.7	361.7
Feed & residual	1,368.4	1,288.4
Total	2,151.6	1,986.6
Ending stocks, Mar. 1	4,789.0	4,558.9
CCC	195.6	199.2
FOR	182.6	0.6
Loan	830.0	835.0
Free	3,580.8	3,524.1

Totals might not add because of rounding.

Figure 3
Corn Prices



Prices received by farmers.

Sorghum Production Projected 21 Percent Larger in 1992

Even with increased production, ending stocks in 1992/93 will be only slightly larger than the near-record forecast low for 1991/92.

In March, farmers reported intentions to plant 12.1 million acres of sorghum, 8.7 percent more than they planned a year earlier, and 10 percent above the area planted in 1991. Assuming farmers carry through with their intentions, and yields are at average levels, 1992 production would be around 700 million bushels, up 21 percent from last year.

In March, Texas farmers indicated plans to increase plantings by 16 percent or 500,000 acres. Texas produced the most sorghum of any State in 1991 even with fewer planted acres than Kansas. In 1992, Kansas producers plan to cut sorghum plantings 3 percent. Last year, Kansas farmers reported they intended to plant 400,000 acres more than the year before, but ended up planting only 300,000 more. The third largest sorghum producing State, both in acres and bushels, is Nebraska. In 1991, farmers there planted less sorghum than intended in March. Their 1992 intended sorghum acreage is up 17 percent from last year but below 1989.

Total supply of grain sorghum in 1992/93 is projected up 12 percent from 1991/92. The increase in production

would help offset a forecast 25-percent decline in beginning stocks.

Total use of grain sorghum in 1992/93 is projected at 685 million bushels, up 11 percent from 1991/92. Exports are projected to show little change, because demand by Mexico is expected to continue strong. However, with larger supplies and weaker prices, feed and residual disappearance in 1992/93 is projected to increase 20 percent from the 355 million bushels forecast for 1991/92.

Projected use for 1992/93 is slightly less than expected production, resulting in a small increase in ending stocks. However, the projected 122-million-bushel ending stocks will still be tight. Lower corn prices are expected to pull sorghum prices down in 1992/93, although the average price received by farmers likely will continue higher than normal relative to corn.

Stocks Tighten in 1991/92

The total supply of sorghum in 1991/92 is down 9 percent from 1990/91. The decline was the result of lower carryin

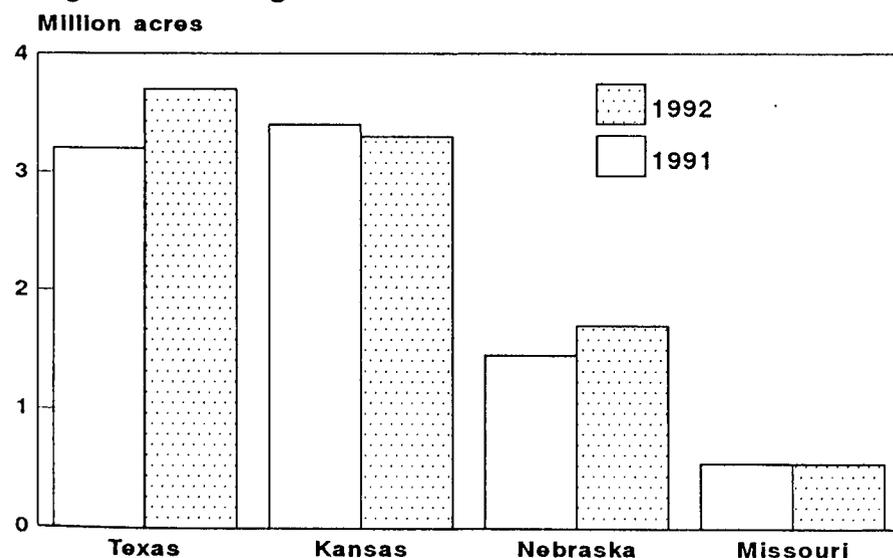
stocks because production was up 6 million bushels. In 1991, grain sorghum yield was down 6.5 percent from 1990 but acreage harvested for grain was up 8 percent. The carryin stocks in 1991/92 totaled 143 million bushels, 65 percent of the previous year's level. Moreover, 65 million bushels of the beginning stocks were in CCC.

Grain sorghum use for September-February 1991/92 totaled 471 million bushels, 2 percent more than year-earlier disappearance of 460 million. The increased use in 1991/92 was the result of a sharp 77-percent increase in exports, mostly to Mexico, from December 1991 through February 1992 over a year earlier. Domestic disappearance in September-February 1991/92 was down 8 percent from 1990/91, with a drop in the second-quarter feed and residual component.

Stocks in all positions totaled 251 million bushels on March 1, 25 percent below March 1991's 333 million bushels. Disappearance during the second half of this year is forecast at 144 million bushels, compared with 190 for that period last year. This would bring use for the entire year to 615 million bushels, consisting of 245 million bushels of exports and domestic disappearance of 370 million. Use is forecast to exceed the 1991 production of 579 million bushels, leaving ending stocks of 107 million bushels, 36 million bushels fewer than a year earlier and the lowest ending stocks since 1976/77.

Prices received by farmers for sorghum this year have strengthened relative to corn. The price averaged 96 percent of that received for corn during September-February, compared with 93 percent a year earlier. By mid-April, this ratio had declined to 94 percent, within the range of feeding value measured in metabolizable energy for beef cattle. The metabolizable energy relative to number 2 corn ranges from 92.3 to 94.5 percent, depending upon the protein content of the sorghum. Due to strong demand by Mexico, sorghum may be

Figure 4
Sorghum Planting Intentions



As of March 1.

priced above its feeding value relative to corn because Mexico has import restrictions on corn.

CCC continues to reduce its inventory of grain sorghum. On May 1, 14.5 mil-

lion bushels were in inventory, down from 65 million on September 1, 1991. Of the 14.5 million bushels in CCC storage on May 1, 13.0 million were committed to Section 416 disaster assistance and emergency feed assistance. Only

1.4 million bushels were available for CCC catalog sales. By the end of August, CCC sorghum inventories are expected to be just 5 million bushels.

[Allen Baker, (202) 219-0840]

Lower 1992/93 Barley Supplies and Use Projected

A significant decline in 1992/93 barley supplies is projected because of low beginning inventories and reduced production. Declines in exports and feed and residual uses will translate into ending stocks at roughly the same level as forecast for 1991/92.

Barley Planting Intentions Decline in 1992

USDA's March *Prospective Plantings* report indicated barley will be planted on 8.31 million acres for 1992, a decline of more than 7 percent from 1991's actual 8.9 million planted acres. The decline appears to be spread across most of the Nation's barley producing States, although several (California, for example, with only 270,000 planted acres) are expected to have increases in 1992. South Dakota and Minnesota are expected to decrease the area planted to barley and increase their spring wheat area. Sharply increased wheat prices have resulted in a significant boost in the expected average net returns for barley. North Dakota will continue to devote the most land to barley in 1992, with 2.9 million acres (almost 35 percent of the U.S. total). Plantings there are expected to match the 1991 level. Although in March, Montana farmers indicated plans to plant 19 percent of the Nation's barley acres, this will be a decline of 200,000 and reach only the 1990 total of 1.6 million.

Table 2--Change in net returns per acre, 1991 to 1992

	Barley	Oats	Spring wheat
North Dakota	\$3.57	\$14.09	\$46.50
South Dakota	7.79	10.42	41.76
Minnesota	-6.11	20.64	61.31

1992/93 Barley Production Projected To Decline

The 1992 barley crop is projected at 420 million bushels, reflecting the drop in planting intentions. Although the projected output represents a year-to-year decline of about 9 percent, it would about equal the 1990 level and be 4 percent larger than the 1989 crop. Carryin stocks for 1992/93 are forecast at 125 million bushels, compared with 135 million at the beginning of 1991/92. The declines in production and beginning stocks will result in tighter barley supplies of 565 million bushels, down 60 million from 1991/92.

As barley supplies fall, feed and residual use is expected to be down as well--to 185 million bushels, compared with a forecast of 225 million in 1991/92. FSI use is likely to remain steady at 175 million bushels, reflecting limited growth in beer consumption. Exports in 1992/93 are projected down from the forecast 1991/92 high of 100 million bushels, but are expected to match other recent years at 90 million. Total use is therefore projected at 450 million bushels, down 50 million from the 1991/92 level. Ending stocks for 1992/93 are projected at 115 million bushels, down 10 million from the forecast for June 1, 1992.

1991/92 Use Varies Through First Three Quarters

For the first 9 months of the June-May crop year, barley uses differ from the same period a year earlier, with some increasing while others decline. FSI uses thus far in the 1991/92 crop year

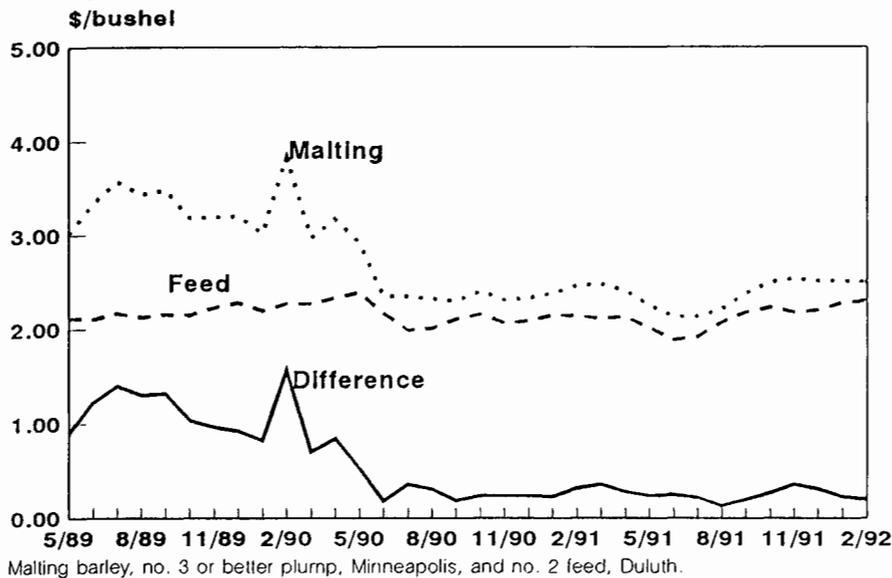
are 121 million bushels, about 2 million lower than the same time 1 year earlier. Feed and residual use of over 200 million bushels, however, is about 13 percent above the 1990/91 level. This implies feed and residual use of about 24 million bushels during the March-May quarter, about the same as the average of the 2 previous years.

Barley exports from June 1991 through February 1992 were about the same as the previous year, about 75 million bushels. However, forecast fourth-quarter (March-May) exports around 25 million bushels are well above 1990/91's 6 million. The bulk of the difference is attributed to recent large sales to the former USSR and Saudi Arabia.

The 1991/92 ending stocks are forecast to fall to only 125 million bushels on June 1, 1992. This would be the lowest since the 92 million bushels after the 1974/75 crop. The 1991/92 stocks-to-use ratio is forecast at 25 percent, down from 29 and 36 percent in the 2 previous years. In fact, this ratio is only slightly higher than the low of 1974/75. On March 1, 1992, barley stocks in all positions were 218.6 million bushels, up almost 8 million from a year earlier.

The estimated marketing-year weighted-average price for all barley for 1991/92 is \$2.10 per bushel, slightly below last year's \$2.14. Barley prices began the crop year well below the previous year, but rebounded during the fall and winter months. Through the first 11 months of the crop year, cash prices for feed barley in Duluth averaged \$2.13 per bushel, the same as that period of

Figure 5
Barley Cash Prices



1990/91. However, malting barley prices in Minneapolis have declined about 4 cents per bushel to \$2.37 per bushel as the crop year approaches an end. The difference between cash prices for feed and malting barley has fallen in recent months after reaching about 50 cents per bushel by December 1991. With net returns, on average, favoring other crops in many key areas, this differential is not sufficient to boost the area planted for malting quality barley as much as it would have in other years.

[Jim Cole, (202) 219-0840]

Oats Production Projected Higher in 1992/93, Supplies Lower

Production gains are more than offset by a forecast drop in carryin stocks.

Oats Planting Intentions Down in 1992/93, Harvested Acres Estimated Up

In March, farmers indicated plans to plant fewer acres to oats in 1992/93. According to the Prospective Plantings report, planted area is expected to drop 4 percent to only 8.3 million acres. One reason for the drop in planted acres is the general decline in ARP rates for other program crops. However, the area harvested for grain may reverse a long-standing trend of annual declines and increase by over 2 percent to 4.9 million acres. Average returns net of variable costs for oats have strengthened in 1991/92 in some key producing States.

Over half of the oats-producing States are expected to expand their harvested acreage, including major producers such as Iowa and North Dakota. In South Dakota, farmers indicated they intend to harvest 700,000 acres, the same as in 1991/92. However, Minnesota and Wisconsin, together, are ex-

pected to harvest over 150,000 fewer acres in 1992.

Oats Supplies To Decline In 1992/93

Oats supplies are projected to fall in 1992/93 to just 453 million bushels, from 484 million and 578 million bushels in the 2 previous years. The one-third drop in beginning stocks to a forecast 113 million bushels is expected to be more than enough to offset projected production gains. Production, forecast at 275 million bushels, is up from 243 million in 1991/92. However, oats production would still be far below that of most recent years.

Oats uses for the 1992/93 marketing year are projected at 341 million bushels, down 30 million from that forecast for 1991/92 because of tighter supplies. Given the tighter supply, the adjustment in use will be in the feed and residual use--projected down 35 million bushels from the forecast 1991/92 level. FSI use continues its small but steady growth. The bulk of the FSI increase is

food use, which continues stronger than population growth. But other cereal brans now compete more effectively with oats, somewhat retarding the growth of oats for food. Imports of oats are forecast at 65 million bushels, 5 million bushels below the 1991/92 level because of tight world supplies.

With expected total oats uses nearly matching production and imports, ending inventories for 1992/93 are projected at 113 million bushels, about the level of 1991/92.

1991/92 Oats Uses Decline Sharply

Total oats uses in 1991/92 are forecast to fall to only 371 million bushels, from 407 million in 1990/91 and 381 million in 1989/90. Through the first three quarters of the June-May 1991/92 crop year, total use amounted to 297 million bushels, down sharply from over 330 million during that period 1 year earlier. This implies fourth-quarter use of almost 75 million bushels, about the same as in each of the 2 previous years.

Feed and residual use during the first 9 months of the 1991/92 crop year totaled 213 million bushels, compared with over 250 million during the same period in 1990/91. For the current year, implied feed and residual use for the fourth quarter is about 32 million bushels, similar to that of 1989/90 and 1990/91. FSI uses for June-February 1991/92 are up about 3 percent from the previous year. Oats exports continue to be forecast around 600,000 bushels.

Even though oats uses have declined, ending inventories continue to fall. Ending stocks of oats for 1991/92 are forecast to reach only 113 million bushels, down from 171 million a year earlier. As a result, the stocks-to-use ratio for 1991/92 is expected to be only 30 percent, compared with over 40 percent in each of the preceding two years. In three cases during the 1980's (1981/82, 1986/87, and 1987/88), the ratio was lower.

The preliminary marketing-year weighted-average price for oats for 1991/92 is \$1.20 per bushel, up modestly from \$1.14 in 1990/91, but down from the 1989/90 level of \$1.49 per bushel.

[Jim Cole, (202) 219-0840]

Hay

Hay Outturn To Fall in 1992/93

Reduced acres for hay harvest and increased animal units lead to tighter conditions.

USDA's March *Prospective Plantings* report indicated that farmers will harvest 60.7 million acres of hay in 1992, about 3 percent below last year and over 4 million acres below the peak of 65.1 million acres in 1988. The decline is not unexpected, because monthly hay prices have averaged about \$10 per ton below year-earlier levels. In addition, May 1 carryin hay stocks are up 1.6 million short tons.

In 1991, alfalfa accounted for 55 percent of all hay produced. Prospects for the first cutting of alfalfa in 1992 appear mixed, as indicated by individual State range and pasture conditions. Conditions are below year-earlier levels for major producers, Wisconsin and Minnesota, who combined for 18 percent of the outturn in 1991. Conditions are improved in Nebraska, and are about equal to last year in South Dakota. North Dakota prospects are dramatically improved with an 83-percent rating, up

from 53 percent in 1991 and a 10-year average of only 65 percent.

The expected 60.7 million harvested acres and an average yield of about 2.4 tons per acre would be expected to result in an outturn of 145 million tons for 1992/93, about the same as 1989/90 and 1990/91, but well below the 153.5 million tons produced in 1991/92.

Carryin stocks as of May 1, 1992, were 28.6 million tons, 1.6 million tons larger than last year. States with the largest carryin stocks were South Dakota, Texas, and Wisconsin.

Early-Season Pasture Conditions Better than a Year Ago

Nationwide, range and pasture conditions appear generally favorable and are somewhat above the year-earlier ratings. The rating of 84 percent on May 1 compares with the 1991 rating of 79 at the same time, and the 1981-90 average

of 77. Ratings of 80 percent and above are considered good to excellent, and 65-79 percent are poor to fair.

Roughage Consuming Animal Units Climb in 1991/92

The number of roughage consuming animal units (RCAU) for 1990/91 and 1991/92 are 76.8 million and 75.5 million, respectively. Over 70 percent of the total continues to be beef cattle other than those on feed. At 54.5 million head in 1991/92, these cattle have increased their number faster than the total RCAU, about 3 percent, compared to the total of almost 2 percent.

The numbers imply 1991/92 hay supplies per RCAU of about 2.35 tons, up from the 1990/91 level of 2.30, and the highest since 1987/88, and illustrating crop recovery since the 1988 drought.

[Jim Cole, (202) 219-0840]

Feed and Residual Use of Feed Grains To Increase in '92/93

Feed use in 1991/92 will be up from last year mainly because of larger hog inventories and increased poultry production.

Feed and residual use of the four feed grains (on a mixed crop year basis) in 1992/93 is projected to increase 2 percent from the 141.9 million metric tons forecast for 1991/92. In 1991/92, feed and residual use of these grains plus wheat (all on a September-August basis) is expected to be down nearly 3 percent from the 150 million metric tons used in 1990/91. The 1990/91 (September-August) increase in feed and residual use was primarily caused by larger wheat disappearance in June-August of 1991 and higher annual corn use.

Feed and residual use of corn for September 1991 through February 1992 was down 9 million bushels from the same period in 1990/1991, but 219 million bushels larger than in 1989/90. Feed and residual use in the September-November quarter was up nearly 4 percent from the year earlier, but December 1991 through February 1992 use was down 5 percent from the year earlier.

During January-March 1992, the number of dairy cows averaged over 2 percent fewer than in 1991. Milk per

cow during the quarter was up nearly 4 percent, partially because of leap year, and increased production slightly over 1 percent. On April 1, producers reported feeding 18.1 pounds of grain and other concentrates per cow, up from 18 pounds in 1991. Prices received by farmers for milk in January-March 1992 were 12 percent above last year and likely helped increase production. Prices for milk are expected to remain favorable for an increase in concentrate feeding in the remainder of 1992.

Dairy cow numbers are projected to fall 1.5 to 2 percent in 1992. The number of replacement heifers on January 1, 1992, was about unchanged from the 2 previous years, putting upward pressure on milk cow numbers.

On April 1, 1992, the number of cattle and calves on feed in the 13 quarterly reporting States was down nearly 10 percent from the previous year. Feed use probably was not down as much as numbers would imply because fed cattle marketed in January-March 1992 were placed on feed at heavier weights and

marketing weights were heavier. Feeding margins have generally been negative, discouraging placements.

Feed use by the hog sector will be above last year because of the nearly 6-percent larger pig crop in September-November 1991 and the nearly 9-percent increase in December 1991-February 1992. If producers carry through with their intentions to maintain sow farrowings near last year and pigs per litter continue to increase, feed demand would remain steady to slightly higher.

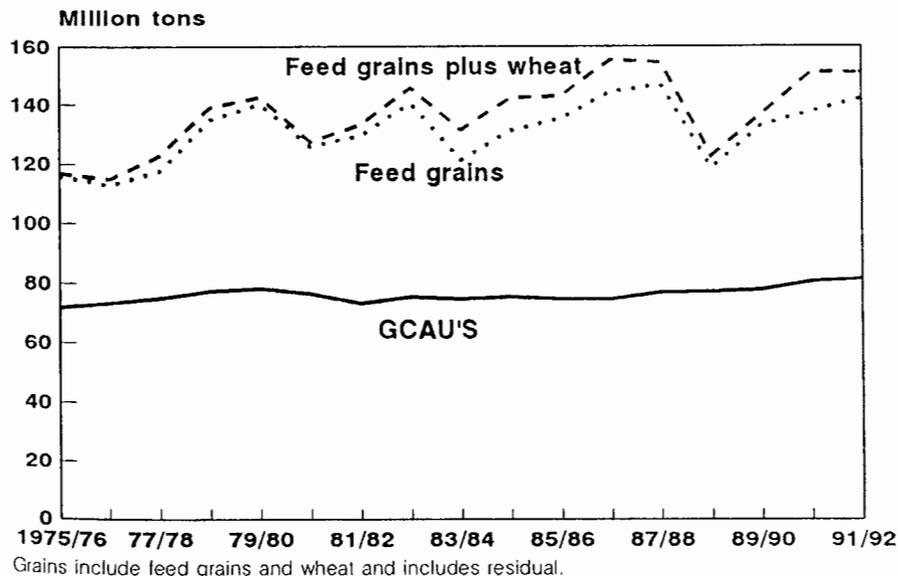
The poultry sector is expected to continue needing additional feed relative to last year. The demand for layer feed in 1991/92 will be up from last year, driven by increased layer numbers. The number of table egg layers on hand during March was 2 percent above last year and hatching egg layers were up 3 percent. The number of egg-type pullets hatched during January-March 1992 was below a year earlier, suggesting a future reduction in the increase in layer numbers. Egg prices have been weak, also suggesting a decline in the rate of increase.

Feed use by the broiler sector in 1991/92 will be up from the previous year but the rate of increase will slow. Producers, facing increasing meat supplies in mid-1992, have been placing only 1 to 3 percent more chicks rather than the 5 or 6 percent increases of 1991.

Feed demand by the turkey sector will be up from last year because of more turkeys raised. Cumulative placements for September 1990-March 1991 were 2 percent above a year earlier. In September 1991-March 1992, cumulative placements were 4 percent above September 1990-March 1991. The increased placements are particularly interesting because net returns for turkey producers were not favorable during much of 1991 and thus far in 1992.

[Allen Baker, (202) 219-0840]

Figure 6
Feed Use of Grains and Animal Units



FSI Use of Corn Projected to Rise 3 Percent in 1991/92

Increased corn use for fuel ethanol is expected to meet needs for oxygenated fuels this winter.

In the 1992/93 marketing year, food, seed, and industrial (FSI) use of corn is expected to total 1,485 million bushels of corn, up nearly 3 percent from forecast 1991/92. FSI use at this level would represent slightly over 18 percent of projected total corn use, the same as in 1991/92, but up nearly 1 percent from 1990/91.

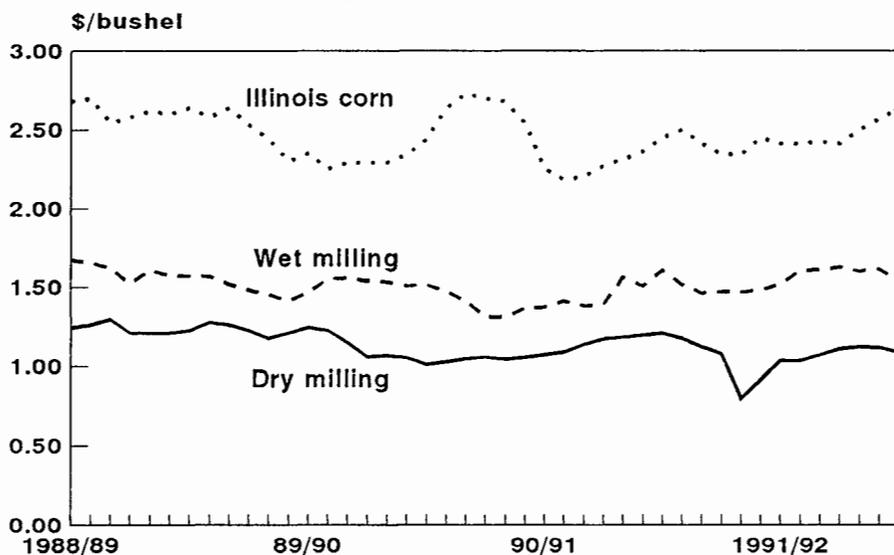
The increase in corn used for industrial purposes is expected to be led by 5 percent more fuel alcohol than last year. Fuel ethanol production is expected to be near capacity even though the net cost of corn in 1991/92 is increasing toward the high levels of 1989/90. The expected drop in corn prices in coming months and in 1992/93 may reduce net corn costs as byproduct prices stay

strong. Distillers dry grains, corn gluten feed and corn gluten meal will likely average slightly higher because soybean oil meal is projected to average \$165 to \$195 per ton, compared with \$175 in 1991/92.

Despite tight margins in 1991/92, ethanol producers are expected to increase production nearly 14 percent from 1990/91. The Clean Air Act Amendments of 1990 require gasoline sold after November 1, 1992, for at least 4 winter months in 39 metropolitan areas and counties that have failed to meet carbon monoxide air quality standards, to contain a minimum 2.7 percent oxygen by weight. While waivers may be granted for 1992, industries affected are taking action to meet the requirements, from building oxygenate production facilities to contracting for sources of oxygenates. State and Federal tax programs provide a powerful incentive for ethanol use in some areas.

Shipments of corn starch in September 1991-February 1992 were 2 percent above that period in 1990/91. Industrial uses of starch tend to move with the general economy. In 1991/92, corn used in starch production is expected to increase over 3 percent from last year, especially if the economic growth rate

Figure 7
Corn and Corn Milling Byproduct Values



Byproduct values converted to corn equivalent based on by-product yield.

Table 3--Corn: Food, seed, and industrial use, 1980/81-1992/93 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	170	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	343	80	114	19	1,367
1991/92	390	207	240	390	81	116	20	1,445
1992/93	398	210	247	410	83	117	20	1,485

1/ Marketing year beginning September 1.

increases in the remainder of 1991/92. With economic expansion expected to continue in 1992/93, corn used in starch may increase another 3 percent from the levels in 1991/92.

In first-half 1991/92, shipments of high fructose corn syrup (HFCS) were nearly 5 percent above the same period last year. HFCS is primarily used in soft drinks, sales of which are stimulated by hot weather. Some parts of the U.S. have had cooler-than-normal spring temperatures, suggesting soft drink sales may not have kept pace with HFCS shipments. In addition, HFCS contract prices for spring shipment were down from the seasonal increase last year, because of active competition for market share among sellers. For all of 1991/92, corn used in HFCS is expected to be up

3 percent from 1990/91. In 1992/93, HFCS production is expected to increase 2 percent from 1991/92. This increase assumes some continued growth in the use of HFCS above population growth and a continued strong consumer demand for caloric sweetened soft drinks.

Corn used in glucose and dextrose in first-half 1991/92 likely increased 4 percent from the same period last year. The biggest increase over a year earlier occurred in December 1991-February 1992, a period when sugar prices were moving up. The increase in sugar prices may have shifted use. For all of 1991/92, corn used in glucose and dextrose is expected to total 207 million bushels, up over 3 percent from a year earlier. In 1992/93, corn used in pro-

ducing glucose and dextrose may be up 1 percent from a year earlier, about in line with population increases.

Corn used in beverages, cereals, and other products is not expected to grow much faster than the population in 1991/92 and 1992/93. Corn used to produce beverage alcohol in 1991/92 is expected to grow about 1 percent from a year earlier. In 1992/93, beverage use of corn may increase 2 percent over 1991/92 if the expanding economy stimulates sales. Corn used in cereals and other products in 1991/92 may increase 2 percent from the previous year and in 1992/93, by 1 percent.

[Allen Baker, (202) 219-0840]

Rail Volume Remains High for the Year, but Slips in April. Barge Volume Up

Supply of transportation services will remain adequate.

Exports and domestic consumption of total grains and soybeans for 1991/92 are projected at 360 million metric tons, 2 percent above the prior year. Much of the rise stems from increased domestic use of corn, now projected up 5 percent. Corn exports are projected down nearly 10 percent, but soybean exports are expected to be up 24 percent. Barge shipments account for 50-60 percent of corn exports and 60-70 percent of soybean exports. Thus, barge volume is expected to remain near a year earlier.

Grain exports during September 1991-April 1992, as measured by inspections for export, averaged up 34.4 million bushels per month, 11 percent above the same period of the prior year. The rise was concentrated in increased shipments of wheat and soybeans from the U.S. Gulf. Exports of wheat, corn, and soybeans through Pacific Coast ports were also up. While these latter increases were much smaller than those at the U.S. Gulf, exports of corn and soybeans from Pacific Coast ports must be railed from major producing areas. Thus, these exports contributed disproportionately to demand for rail equipment.

Export shipments of grains and soybeans during September 1991-April 1992 averaged 8,665 cars per week, 36 percent above a year earlier. The projected 17-percent increase in wheat exports and 5-percent increase in corn exports have held rail shipments well above 1990/91 levels.

Rail Volume Still Up From Last Year

Rail shipments of grain and oilseeds during September 1991-April 1992 averaged 28,656 cars per week, 11 percent above the prior year, due largely to the sharp rise in rail shipments to ports. Texas ports posted the largest increase, 1,311 cars per week, 80 percent above the same months of the prior year. Pa-

cific Coast ports also showed a significant increase, 713 cars per week, 22 percent over a year earlier.

Rail shipments of grain peaked in March 1992 at 30,059 cars per week, 7 percent above March 1991 and 8 percent above the 1980-1991 average for the

Figure 8
Railcar Unloadings of Grain

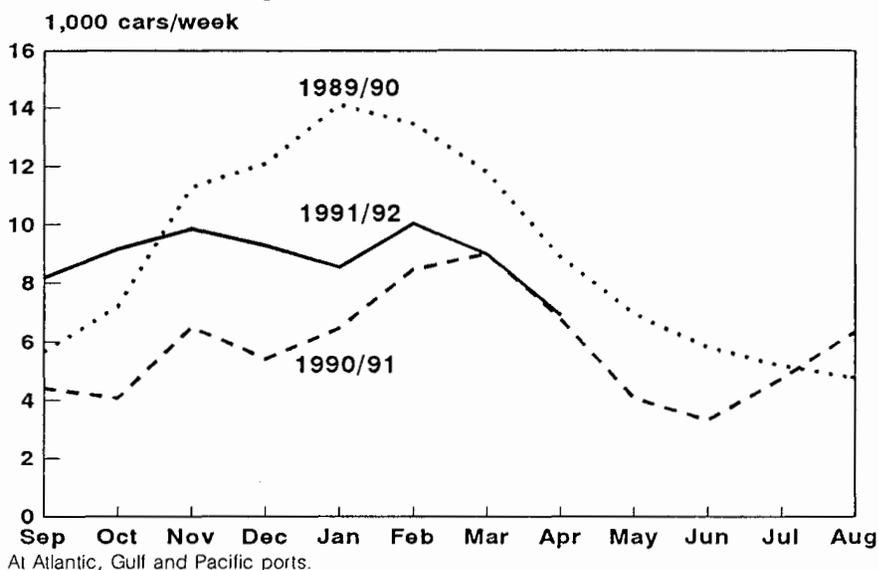
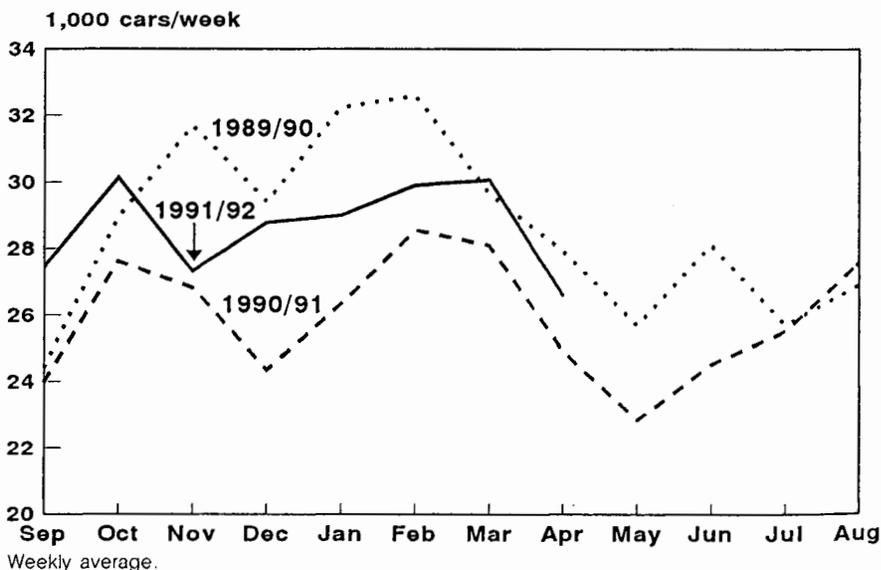


Figure 9
Railcar Loadings of Grain and Soybeans



month. In April, shipments fell seasonally to 26,586 cars per week, 7 percent above April 1991.

Third-Quarter Rail Rates Projected Nearly Unchanged

Rail rates for grains remained level from September 1991 through April 1992. The Bureau of Labor Statistics' rail rate index for grain averaged 111.0 over the period, down fractionally from 111.1 for 1991/92. Preliminary data indicate rates in March fell nearly 1 percent from February's 111.3, but rose to 110.5 in

April. Indications are that railroad operating costs have declined since January.

The Interstate Commerce Commission has ruled that the Rail Cost Adjustment Factor (RCAF) for April-June 1992 will decrease 1.5 percent from the first quarter. In the first quarter, the RCAF was computed down 1.6 percent from fourth-quarter 1991. Computed quarterly, the RCAF reflects changes in rail operating costs as adjusted for productivity. Railroads may raise or lower

rates to reflect changes in the RCAF without ICC review.

Minimum acceptable bids offered by the Burlington Northern Railroad (BN) remained unchanged from September 1991 into the second week of May 1992.

No upward cost pressures are in view and rail rates for grain are expected to continue nearly flat for the remainder of 1992.

Barge Volume Close to Last Year

Grain shipments on the Illinois and Mississippi River systems rose through April to 3.8 million short tons, up 111 percent from January's seasonal low.

During September 1991-April 1992, increased exports of soybeans, as measured by inspections for export, through U.S. Gulf ports, nearly offset decreased exports of corn. As a result, barge shipments of grain during September 1991-April 1992 averaged 3.1 million tons per month, the same as a year earlier.

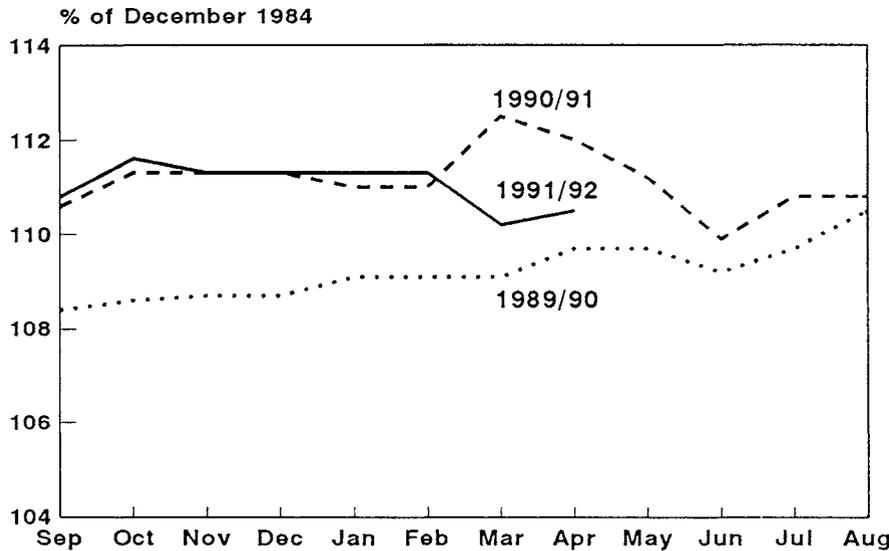
Barge Rates Down From March Highs

Barge rates increased from January levels in both February and March. For March, rates from Peoria, Ill., to New Orleans averaged \$6.67 per short ton, 20 percent above January. Rates from St. Louis, Mo., averaged \$5.07 per ton, 36 percent above January.

In April, rates fell sharply. At St. Louis, rates averaged \$4.23 per ton, 16 percent below March. For Peoria, rates fell 14 percent to \$5.76 per ton. Preliminary data indicate that the decline continued into May. At mid-month, rates from Peoria averaged \$4.40 per ton and from St. Louis \$3.54 per ton. These reductions reflect increased availability of barges. Two factors played major roles. During April the number of barges empty or awaiting unloading in the New Orleans area averaged about 2,270 per day, down 15 percent from March. This indicates increased availability of barges at upstream points.

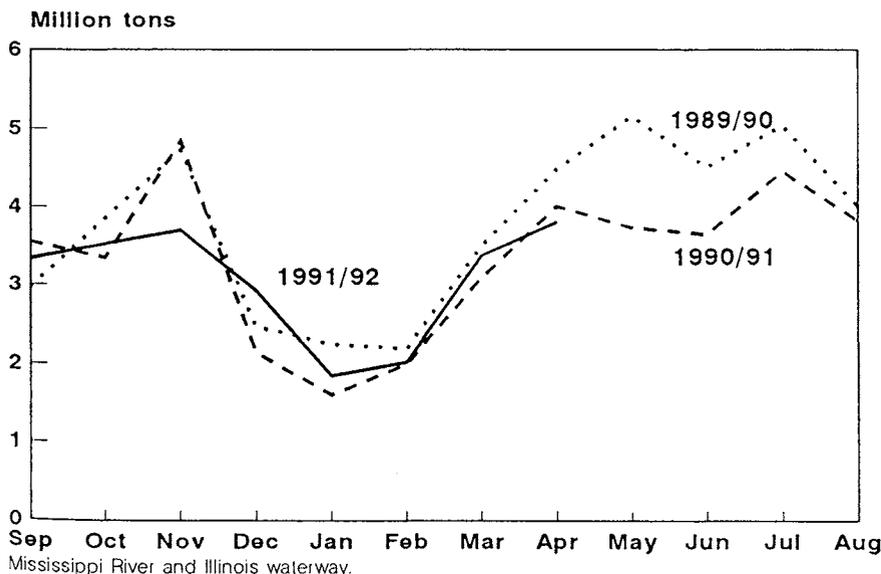
Additionally, a sharp decline in demand for barge transportation on the Illinois River allowed operators to concentrate service on the Mississippi River. While total grain volume on the Mississippi

Figure 10
Rail Rate Index for Grain



Source: Bureau of Labor Statistics.

Figure 11
Average Monthly Grain Shipments



Mississippi River and Illinois waterway.

and Illinois Rivers rose from March to April, shipments on the Illinois River fell 44 percent, 568,000 tons, from March. A slackening in the pace of wheat and soybean exports also played a role.

Mississippi River Conditions

During February and March, water levels at St. Louis were above a year earlier. In April, the river rose seasonally, averaging 16.6 feet at the flood gauge, 11

percent above March. April's average, however, was 15 percent below the 1944-88 average for the month and 20 percent below April 1991.

May showed a fall to 13.5 feet, 25 percent below the 1944-88 average of 18 feet, but 8.3 feet above May 1989. Barring a major drought, there is no indication that the Mississippi's low water conditions of 1988 and 1989 will be repeated in 1992.

Missouri River Conditions

The U.S. Army Corps of Engineers declared the Missouri River open for navigation on April first, a week earlier than in 1991. The Corps anticipates water flows will be the same as in 1991, 6,000 cubic feet per second below the "full service" level. Such a reduction brings about a condition termed "minimum service" by the Corps. At this level, a 9-foot deep channel will mostly be

Figure 12
Barge Rates to New Orleans

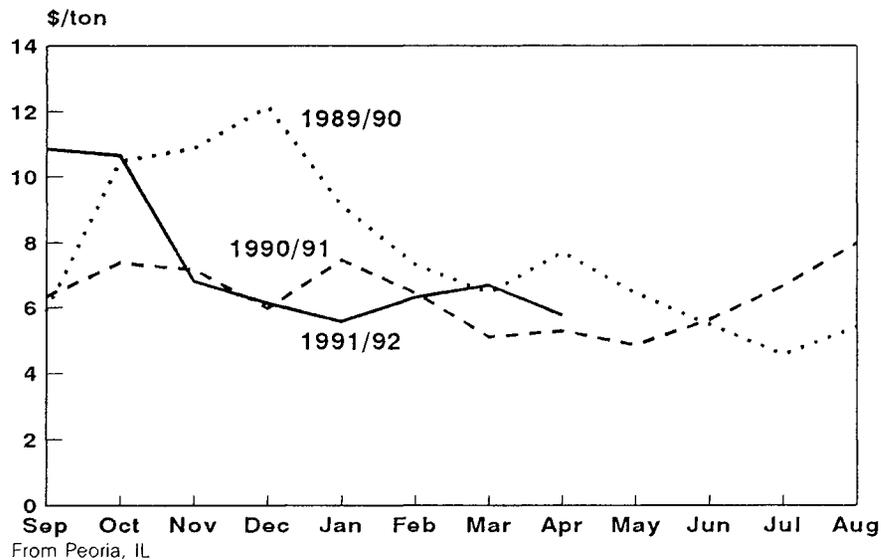
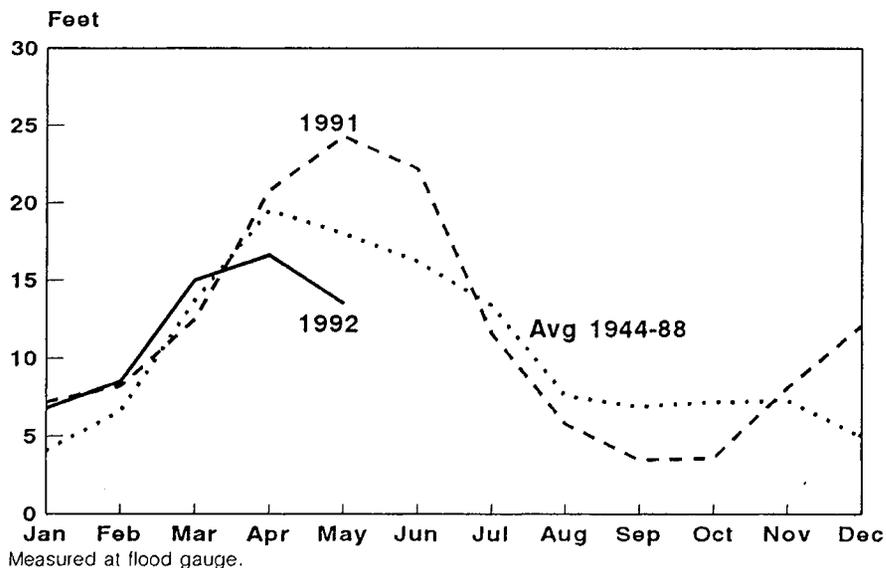


Figure 13
River Stages at St. Louis



maintained, but an above-average number of groundings can be expected.

The quantity of water stored in upstream reservoirs will be checked on July 1 and a final plan for the 1992 navigation season will be announced on that date. Even if the check indicates that additional water releases would be prudent, increased flows must be delayed until

the endangered terns and plovers, which nest downstream, have fledged. This requirement will likely delay any marked increase in water flows until late August or early September.

With the April opening, water levels at the flood gauge at Sioux City, Ia., and Kansas City, Mo., rose, averaging 16.6 feet and 16.1 feet, respectively. In May,

Sioux City's water levels gained slightly to 16.9 feet. At Kansas City, however, the level fell to 14.3 feet, 2.3 feet below May 1991. This suggests that navigation on the Missouri during 1992 will be more difficult than in the 1991 season.

[T.Q. Hutchinson, (202) 219-0840]

Figure 14
River Stages at Sioux City

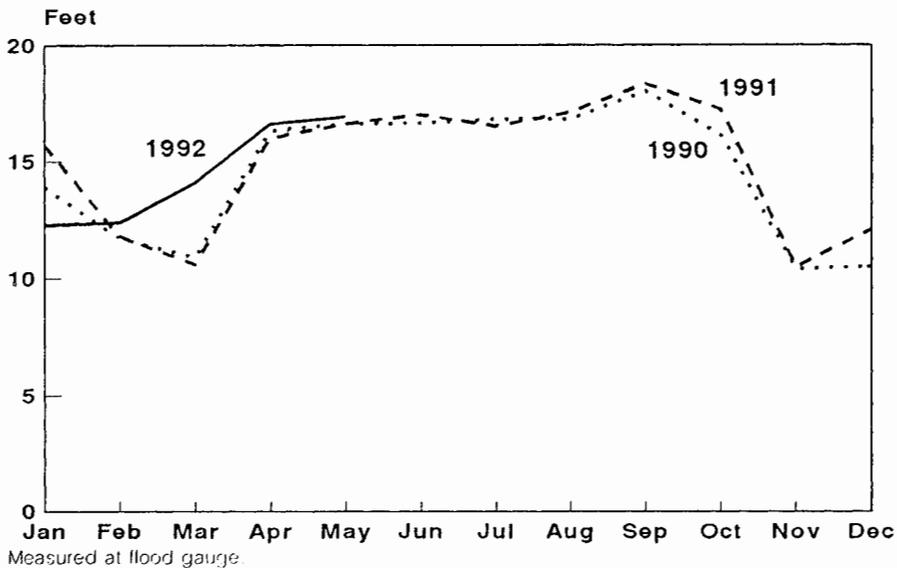
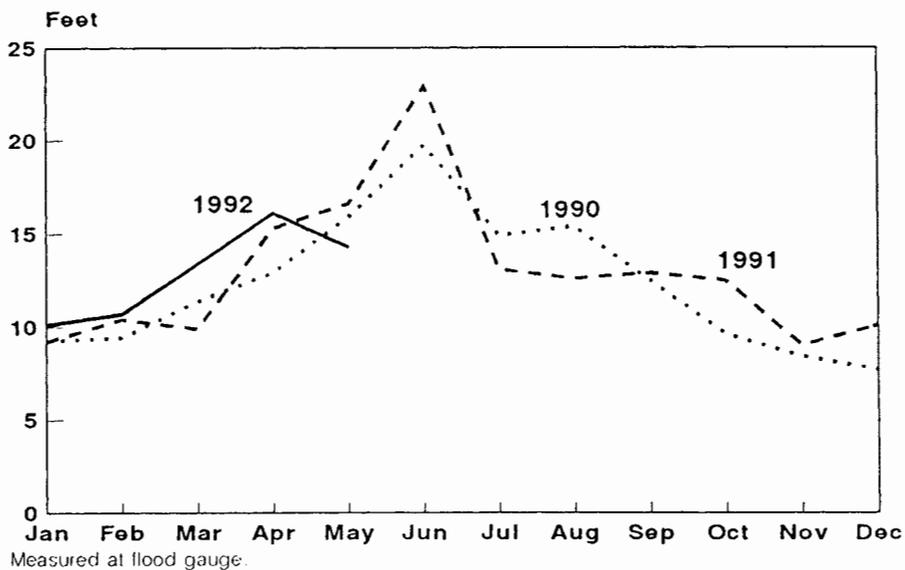


Figure 15
River Stages at Kansas City



Larger U.S. Crop To Raise World Coarse Grain Supplies In 1992/93

Gains in foreign production and use expected after forecast declines in 1991/92. Rebound in former Soviet Union production projected.

Global supplies of coarse grains are projected up 3 percent in 1992/93, mainly on the strength of a large rise in U.S. and former USSR production. This is in contrast to 1991/92 when global coarse grain supplies are down an estimated 1 percent. Foreign supplies are also expected to rise about 1.5 percent in 1992/93. This assessment is based on USDA's initial projections for 1992/93. Changes in 1991/92 forecasts are still possible, with several months remaining in the season.

Gains in world coarse grain production are expected to outstrip consumption gains in 1992/93, leading to some stock rebuilding and some decline in export prices. Global output is projected at 834 million tons, up 4 percent from 1991/92, and global consumption is projected at 820 million tons, an increase of nearly 2 percent. However, this larger level of use would still trail the high point reached in 1989/90. Growth in world consumption has stalled so far in the 1990's in the face of declines in the former Soviet Union and Eastern Europe.

Foreign production and use of coarse grains are expected to increase in 1992/93, in contrast to 1991/92 when both are forecast down. Foreign consumption is projected at 631 million tons in 1992/93, up nearly 2 percent from the previous year. Increases in the former Soviet Union and China account for most of this anticipated gain. For the developing countries, consumption is projected up about 1 percent despite expected reductions in use in Africa.

World ending stocks of coarse grains in 1992/93 are projected at 144 million tons, up 14.5 million tons, and the highest in 4 years. The United States is expected to account for virtually all of the increase, with almost no change projected in foreign stocks. The ratio of

world ending stocks to use is projected at 17.6 percent, compared with 16.1 percent in 1991/92.

USDA's initial projections for wheat show a slight decline in world supply in 1992/93 and small drop in ending

Figure 16
World Coarse Grains Ending Stocks

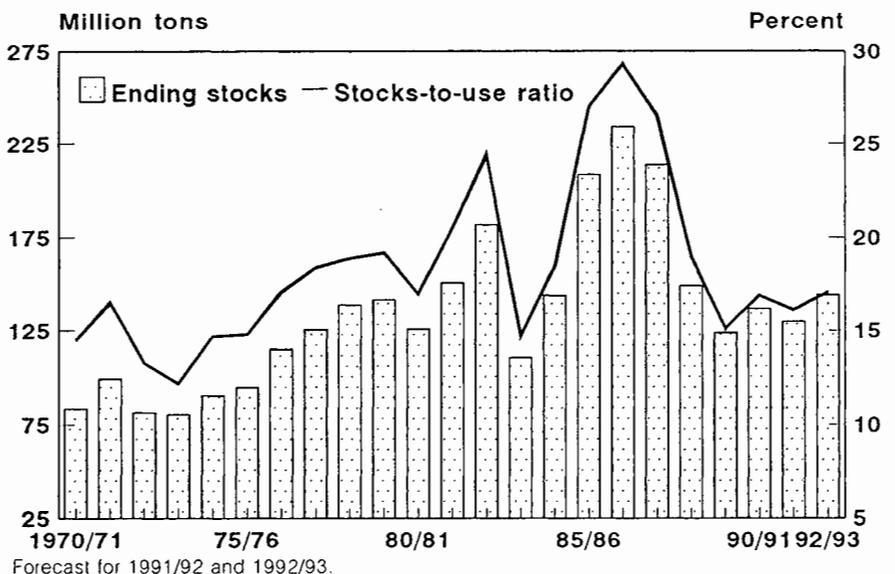
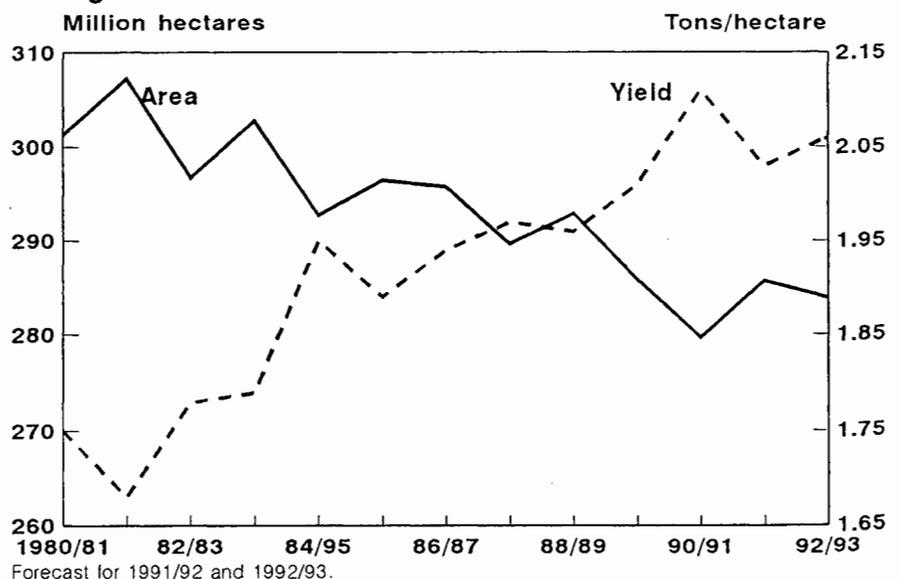


Figure 17
Foreign Coarse Grain Area and Yield



stocks. World wheat consumption is projected to decline marginally, but includes a significant drop in wheat feeding. Export prices for wheat are expected to decline because many major wheat exporters will have large supplies, and will be competing for a smaller world market.

Small Gain in Foreign Production Expected

Foreign production of coarse grains is projected at 585 million tons in 1992/93, up about 5 million from 1991/92. This output would be the second highest after the 1990/91 record crop of 592 million tons. Average foreign yields are expected to increase while coarse grain area falls slightly in 1992/93. Over the 1980-1991 period, foreign yields have been growing at an average rate of 1.8 percent per year, while area has been declining by an average of 0.4 percent per year.

Little year-to-year change is projected for any of the individual coarse grains. Foreign corn production is likely to stay high, at 291 million tons, 1 million above the forecast 1991/92 record. Minor increases are also projected in oats and sorghum, a slightly larger gain in rye, and a small drop in barley.

The largest increase among foreign producers is likely to occur in the former Soviet Union (FSU), where coarse grain production is projected up more than 14

million tons, primarily because of higher prospective yields. A healthy increase in the wheat harvest of nearly 12 million tons is also projected. Total grain production is projected up 17 percent from 1991/92, but this would still be 14 percent below 1990/91.

It was widely feared that much land in the FSU would not be planted because of possible input and fuel shortages, economic uncertainty, and other effects of turbulent conditions. Despite some reports of declines in spring planting in Russia, total grain area for the FSU is projected up slightly in 1992/93. This is largely due to drier planting conditions for winter grains than the year before in the European area of the FSU.

Eastern Europe is expected to experience the biggest production decline in 1992/93. The region's coarse grain harvest is projected to fall about 9 million tons, with most of the decrease likely in corn, the major coarse grain grown there. The projection assumes more average corn yields, unlike 1991/92 when favorable growing conditions resulted in near-record yields. The outlook is highly uncertain, however, because of the civil strife in Yugoslavia, the leading corn producer, and economic changes in Romania and Hungary.

Among major competing exporters, the outlook is for a slight increase in aggregate production. This is primarily because of an expected recovery from

drought-reduced production in South Africa. Assuming normal weather, South Africa's crop is projected to rebound by more than 5 million tons. Production in the European Community (EC) is projected down about 2 million tons, largely stemming from a reduction in area in Spain due to dry conditions. Argentina's output is likely to be down about 1 million due to lower yields than the exceptionally high ones forecast for 1991/92. Little or no change is projected for Australia, Canada, and Thailand.

Update on 1991/92 Southern Hemisphere Crops

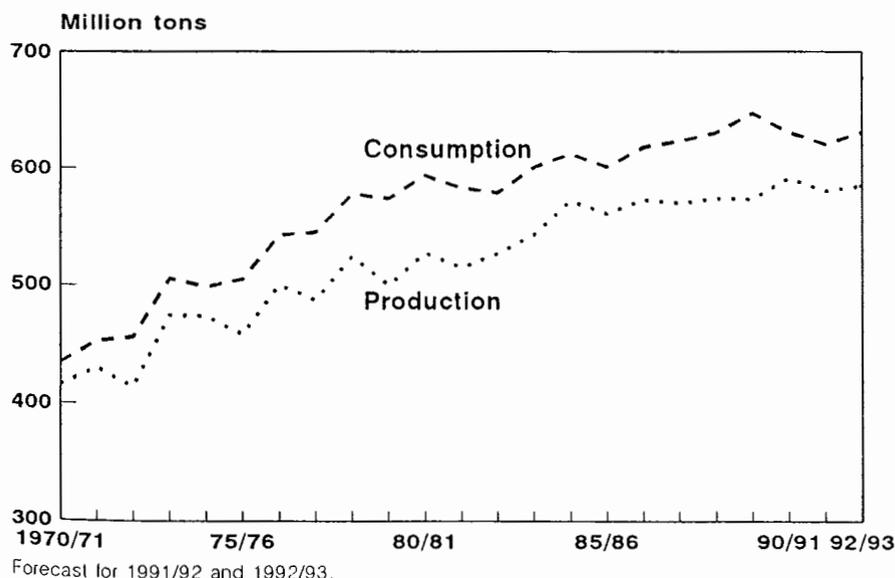
A stark contrast in weather patterns has led to a sharp divergence in production in the major corn producing areas of Latin America and southern Africa in 1991/92. Bountiful rainfall has led to large increases in Brazil and Argentina, while severe drought has brought a steep reduction in southern Africa's crops. Harvesting of these crops is underway and crop estimates are becoming firmer.

South Africa's corn harvest is estimated at 2.6 million tons, compared with 8.3 million the previous year. This is below the drought-reduced crops in the early 1980's and the least since the early 1950's, when plantings were lower. Drought had a similar impact in Zimbabwe, the region's second largest producer, where production is also estimated at about one-third of the previous year. Drought damage was also extensive in Zambia, Malawi, Mozambique, and other countries in the region.

In Brazil, corn output is estimated at a record 28.5 million tons, up about 5 million from 1990/91. In addition to favorable growing conditions, timely provisions of credit supported an increase in plantings and input use. Argentina's corn harvest is estimated at 10.5 million tons in 1991/92 up about 3 million, with record yields for the second year in a row. Exceptionally favorable weather largely accounted for the high yields and also led to the harvest of a higher-than-average portion of planted area.

[Peter Riley, (202) 219-0824]

**Figure 18
Foreign Coarse Grains Production and Use**



World Coarse Grain Trade Expected To Contract in 1992/93

Lower imports by the former Soviet Union underlie trade expectations. No change in U.S. exports projected, but U.S. market share to rise.

World trade in coarse grains is projected to decline 4 percent in 1992/93 to 86.3 million tons.¹ The single most important factor behind this outlook is the expectation of reduced corn and barley imports by the former Soviet Union. Excluding the FSU, foreign coarse grain imports are projected to rise more than 3 percent in 1992/93.

Significant gains in imports are projected for South Korea, Mexico, South Africa, and Eastern Europe. Import growth in the first two markets largely stems from healthy economic growth and increasing feed demand. In addition, South Korea is likely to replace some feed wheat with corn, based on expected relative prices. For the latter two markets, higher import needs reflect domestic crop shortfalls. Production in South Africa and neighboring countries is projected to expand, but harvests will come too late to reduce the region's import needs in October-September 1992/93.

Former Soviet Union To Remain Dependent on Credit

FSU imports are forecast at 18.4 million tons in 1991/92, with a few months remaining in the October-September trade year. In 1992/93, FSU imports are projected to drop about a third to 12 million tons. Prospective wheat imports by the FSU are also weak, with a sharp reduction projected in 1992/93 imports. The trade outlook is shaped by pessimistic economic expectations and improved crop prospects. USDA's projections assume the availability of international financial assistance to cover all imports.

While some increase is expected in FSU feed use of coarse grains in 1992/93, this will likely be offset by reduced wheat feeding. The longer-run implications of

recent developments in the FSU for livestock feeding are for continued weakness. The livestock and poultry industry has suffered from feed shortages and inventories have been declining. In 1991/92, there was an unusually large decline in feed supplies, reflecting a continued drop in State grain procurements needed for the mixed feed industry, relatively low grain imports, and a decline in roughage feed availability. In addition, many farms reduced livestock operations following the elimination of subsidies to high-cost producers.

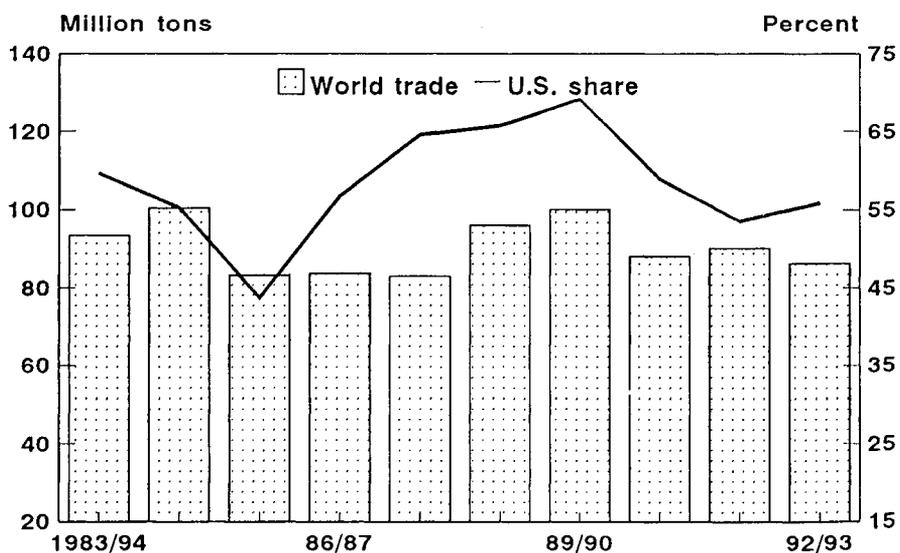
The mixed feed industry is expected to remain handicapped by short supplies in the near-term. Herd rebuilding promises to be very slow, although Russia has just introduced a price support program for animal products aimed at slowing the rapid decline in livestock. However, economic reforms in the FSU have also brought changes in consumer demand that will tend to limit the extent of rebuilding. Cuts in retail subsidies and declines in real consumer incomes have cut meat consumption drastically. In the past, meat consumption was elevated to artificially high levels due to low retail prices.

No Change in U.S. Exports Projected in 1992/93

U.S. coarse grain exports in 1992/93 are projected at 48.2 million tons, equal to the forecast for 1991/92, with the volume of each major component--corn, sorghum, and barley--showing no change. However, a fall in competitor exports is expected to raise the U.S. share of the world market to 56 percent from a forecast 53 percent in 1991/92.

Declining coarse grain exports are projected for Canada, South Africa, and Eastern Europe in 1992/93. Exports by Argentina, Australia, and Thailand are projected to show little change. Despite lower projected production, China is expected to maintain exports at the 1991/92 level by using large carryin stocks. The EC is also forecast to have a smaller harvest but increase exports by 8 percent on the basis of record carryin stocks. EC stocks are projected to increase further in 1992/93. A change in stocks policy and more aggressive use of export subsidies could push EC exports higher.

Figure 19
World Coarse Grain Trade and U.S. Market Share



Forecast for 1991/92 and 1992/93.

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

Table 4--World coarse grain trade: Major exporters and importers by commodity, 1988/89-1992/93 1/

Item	1988/89	1989/90	1990/91	1991/92 2/	1992/93 3/
----- Million metric tons -----					
CORN					
Exporters:					
U.S.	51.3	60.0	44.5	40.0	40.0
Argentina	2.5	3.0	3.7	5.9	6.0
China	3.7	3.2	6.6	8.0	8.0
Thailand	1.4	1.4	1.3	0.8	0.8
South Africa	2.0	2.9	0.8	0.8	0.1
Others	4.4	4.4	3.3	4.8	3.1
Total	65.3	74.8	60.1	60.3	57.9
Importers:					
Japan	15.9	16.0	16.0	16.2	16.2
Former USSR	19.5	19.4	11.5	11.3	6.4
EC-12	2.9	4.1	3.7	2.0	2.0
Korea, Rep.	5.7	6.1	5.6	6.0	8.0
Taiwan	4.2	5.3	5.3	5.5	5.4
Mexico	3.2	5.0	1.8	1.0	2.1
China	0.0	0.5	0.0	0.0	0.0
East Europe	1.7	2.1	1.8	0.2	0.5
Brazil	0.2	0.4	0.9	0.3	0.0
Egypt	1.2	1.4	2.1	1.0	0.5
Others	10.8	14.5	11.4	16.8	16.8
Total	65.3	74.8	60.1	60.3	57.9
SORGHUM					
Exporters:					
U.S.	8.1	7.3	5.8	6.2	6.2
Argentina	0.7	1.2	1.3	1.6	1.3
Australia	0.3	0.0	0.2	0.1	0.2
Others	1.7	0.5	0.6	0.3	0.4
Total	10.8	9.0	7.9	8.2	8.1
Importers:					
Japan	4.1	3.9	3.6	3.3	3.2
Mexico	2.3	3.0	3.0	4.0	4.2
Taiwan	0.1	0.0	0.1	0.1	0.1
Venezuela	1.0	0.1	0.0	0.0	0.0
Israel	0.4	0.4	0.2	0.0	0.0
Former USSR	1.2	0.3	0.0	0.0	0.0
Others	1.7	1.3	1.0	0.8	0.6
Total	10.8	9.0	7.9	8.2	8.1
BARLEY					
Exporters:					
EC-12	9.0	6.7	7.5	8.0	8.5
Canada	3.4	3.7	4.5	4.5	3.5
Australia	1.4	2.4	2.7	2.3	2.3
U.S.	1.7	1.9	1.5	2.0	2.0
Others	1.6	1.0	2.0	2.5	2.1
Total	17.1	15.8	18.2	19.4	18.4
Importers:					
Saudi Arabia	4.6	3.3	4.5	5.0	5.0
Former USSR	3.5	4.9	4.9	6.6	4.9
East Europe	0.9	0.4	1.5	0.5	0.8
Japan	1.3	1.3	1.4	1.3	1.4
Others	6.8	5.9	6.0	6.0	6.3
Total	17.1	15.8	18.2	19.4	18.4
COARSE GRAINS					
TOTAL TRADE	96.2	102.1	88.0	90.1	86.3

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

In 1991/92, the most significant gain in U.S. corn sales has been to South Africa, normally an exporter. Exports to other countries in southern Africa will also be significant, based on donations as well as commercial sales. As of May 14th, sales to South Africa had reached 1.2 million tons, making it the sixth largest market for U.S. corn. In recent weeks, South Africa has been buying exclusively from the U.S. because of Argentina's inability to meet strict aflatoxin requirements. Much of the corn purchased by South Africa is needed for food, and the great volume of imported corn being handled for itself and neighboring countries cannot be segregated by end use. Argentina will only be able to compete again in this market if it is able to meet tighter aflatoxin specifications.

Elsewhere, the outlook for U.S. corn sales is less buoyant. Total corn exports in 1991/92 are forecast down 10 percent to 40 million tons. Sales and shipments to date are lagging in a number of markets, including Mexico, the former Soviet Union, Eastern Europe, Egypt, and South Korea.

U.S. export prospects for sorghum and barley in 1991/92 are more favorable, forecast up 7 percent and 33 percent, respectively, to 6.2 million and 2 million tons. Large purchases by Mexico are driving U.S. sorghum exports higher, while sales to other markets are mostly down. Mexico's buying is on a record pace, reflecting short domestic sorghum supplies, growing feed demand, and continued restrictions on corn feeding.

Most U.S. barley exports will be made under the Export Enhancement Program (EEP) in 1991/92. Sales to Israel, Jor-

dan, and Cyprus are up from the previous year, while Saudi Arabia remains the largest single market. Exports will

also be bolstered by sales of 250,000 tons to the former Soviet Union under EEP and GSM credit guarantees.

[Peter Riley, (202) 219-0824]

New Method of Reporting Data for the Former USSR

USDA has changed the way it reports grain production, supply, and demand estimates for the former USSR. Because the former USSR is a major world grain producer and consumer, these changes have also affected global estimates of production, consumption, and trade.

The former USSR's grain production is now reported on a clean-weight basis, rather than a gross or bunker-weight basis as in the past. Bunker-weight estimates traditionally included excess moisture and foreign material. Therefore, the new clean-weight production estimates are lower in all cases than the bunker-weight estimates.

Total grain production and utilization estimates published by USDA used to include not only wheat, coarse grains,

and rice, but also miscellaneous grains (such as buckwheat) and pulses. Now, only wheat, coarse grains, and milled rice will be included in the total grains estimates. Consequently, the estimates of the former Soviet Union's total grain production and utilization has been reduced.

Other categories have also changed. Domestic use estimates are lower because waste resulting from excess moisture and foreign material in production estimates used to be accounted for in the consumption category. Now most of this waste has been eliminated from the consumption category. The old dockage and waste estimates reflected an estimate of losses occurring during transportation, handling, and storage. These dockage and waste estimates have

been added to the feed category. Therefore, the feed estimates are higher than previously reported.

The estimates of the former Soviet Union's exports and imports have also been revised. Exports now include those from the 12 countries of the former Soviet Union (FSU-12) to the Baltic countries (Estonia, Latvia, and Lithuania). Imports include Baltic imports from the FSU-12 as well as imports from third countries.

The Baltic States are now being reported separately from the other 12 countries of the former USSR. The production data cited in this text for the former Soviet Union is the sum of FSU-12 and the Baltics.

[Peter Riley, (202) 219-0824]

Potential El Niño Impacts on U.S. Feed Grain Production

by Robert J. Stefanski¹

Abstract: The current El Niño event can be partly attributed to this year's warm winter temperatures across the U.S. Great Plains. The main agricultural concern is the continuation of this pattern during the summer. No consistent relationships were found between past El Niño events and U.S. coarse grain yields.

Keywords: El Niño, U.S. coarse grain yields, statistics, weather.

Background

The term "El Niño" describes changes in the atmospheric and oceanic circulation in the tropical Pacific Ocean. Specifically, El Niño is the warming of the tropical Pacific surface waters that occurs every 2-7 years, and is associated with changes in the atmospheric circulation worldwide.² Research into potential rainfall impacts associated with EL Niño indicates that the strongest correlations are centered in Australia, Southeast Asia, India, southern Africa, the Caribbean, and southeastern South America (3) (figure A-1).

In North America, El Niño usually brings wetness along the southern Gulf Coast during the fall and winter. El Niño's influence on Gulf Coast weather typically disappears during the spring months. There is a good correlation between El Niño and above-normal winter temperatures in southern Alaska, and western and southern Canada.

This year's anomalously warm winter in the northern Great Plains can be partly attributed to El Niño. Currently, the main concern for agriculture is whether this warm pattern will continue along with a drying trend in the summer. Research shows that no consistent rainfall or temperature impacts can be expected in the Great Plains and Corn Belt due to El Niño.

Study

For this study, the following yield series were examined: Illinois corn, Nebraska corn, Ohio corn, Kansas sorghum, Minnesota oats, and North Dakota barley.

Yield data were obtained from the late 19th century to the present. Departures from trend were calculated and they were ranked into three classes: above, normal, and below. Standard deviations (s.d.) were computed from the yield departures and 1 s.d. was used as the threshold to classify the departures as above or below. Yield data and El Niño events from 1940 to 1990 were used since agricultural management practices (fertilizer and hybrids) began to improve rapidly during the 1940s and 1950s.

The number of above, near, or below yield departures for the onset year (0), 1 year after onset (+) and 2 years after onset (++) were counted for each El Niño event. Eleven El Niño events were identified and the onset years were: 1946, 1951, 1953, 1957, 1963, 1965, 1968, 1972, 1977, 1982, and 1986. Additionally, the remaining 22 years that were not year (0), year (+), or year (++) were also analyzed.

Table A-1 depicts the results of the analysis. For the current El Niño event, year (0) corresponds to 1991, year (+) to

1992, and year (++) to 1993. A one-way Chi-square test ($\alpha=.10$) was used to test if the distribution across the three classes (above, normal, and below) deviated from random variation. Assuming the yield departures are normally distributed, 68 percent of departures are within 1 s.d. and remaining 32 percent is split evenly between the above and below classes. The expected distribution is then 16 percent above normal, 68 percent normal, and 16 percent below normal. If there was a significant relationship between El Niños and coarse grain yields, a large number of yield series would fail the test. None of the individual yield series failed the test.

However, when the total counts for all State-crop combinations were tested, year (0) failed the test, indicating a non-random bias in the distribution. This distribution seems to be biased towards above-yield departures. The observed yield departures for 1991, which is year (0) of the current El Niño event are as follows: IL corn-below, NE corn-normal, OH corn-below, KS sorghum-below, MN oats-below, ND barley-normal. The 1991 results tended to be

Table A-1--Number of above, normal, or below yield departures in relation to the previous 11 El Niño events and during 22 non El Niño years for selected US coarse grain yield series a/

	(0) b/			(+)			(++)			Non El Niño		
	A	N	B c/	A	N	B	A	N	B	A	N	B
IL Corn	2	9	0	0	9	2	2	6	2	3	18	1
NE Corn	2	9	0	5	4	2	1	7	2	2	16	4
OH Corn	1	10	0	1	7	3	2	6	2	3	19	0
KS Sorghum	3	8	0	2	7	2	1	6	4	2	16	4
MN Oats	2	8	1	2	9	0	0	8	3	5	15	2
ND Barley	1	10	0	1	10	0	1	8	2	3	15	4
Total	11	54	1	11	46	9	7	41	15	18	99	15

a/ For the corn series, only 10 events are used for 2 years after onset, because of the corn blight in 1970. b/ Year in relation to onset of El Niño; 0 is year of onset, + is year following onset, and ++ is second year following onset of El Niño. c/ A denotes a yield above trend, N near trend, and B below trend yield.

¹ The author is an agricultural meteorologist with the Joint Agricultural Weather Facility, World Agricultural Outlook Board, USDA.

² For further background information and descriptions of the El Niño weather mechanisms see Stefanski, 1992 (1,2).

biased toward below-yield departures which was opposite of the historical analysis. This result suggests a bias toward increased variability during an El Niño year but leaves uncertain the predictive capability.

Conclusions

El Niño events do not produce a consistent relationship with U.S. coarse grain yields. This is not to say that a single El Niño event cannot influence growing season weather patterns, but the influence is variable over time and area. Fur-

thermore, the influence of the tropical El Niño disturbance becomes more complex at higher latitudes with the interaction of the northern jet stream circulation.

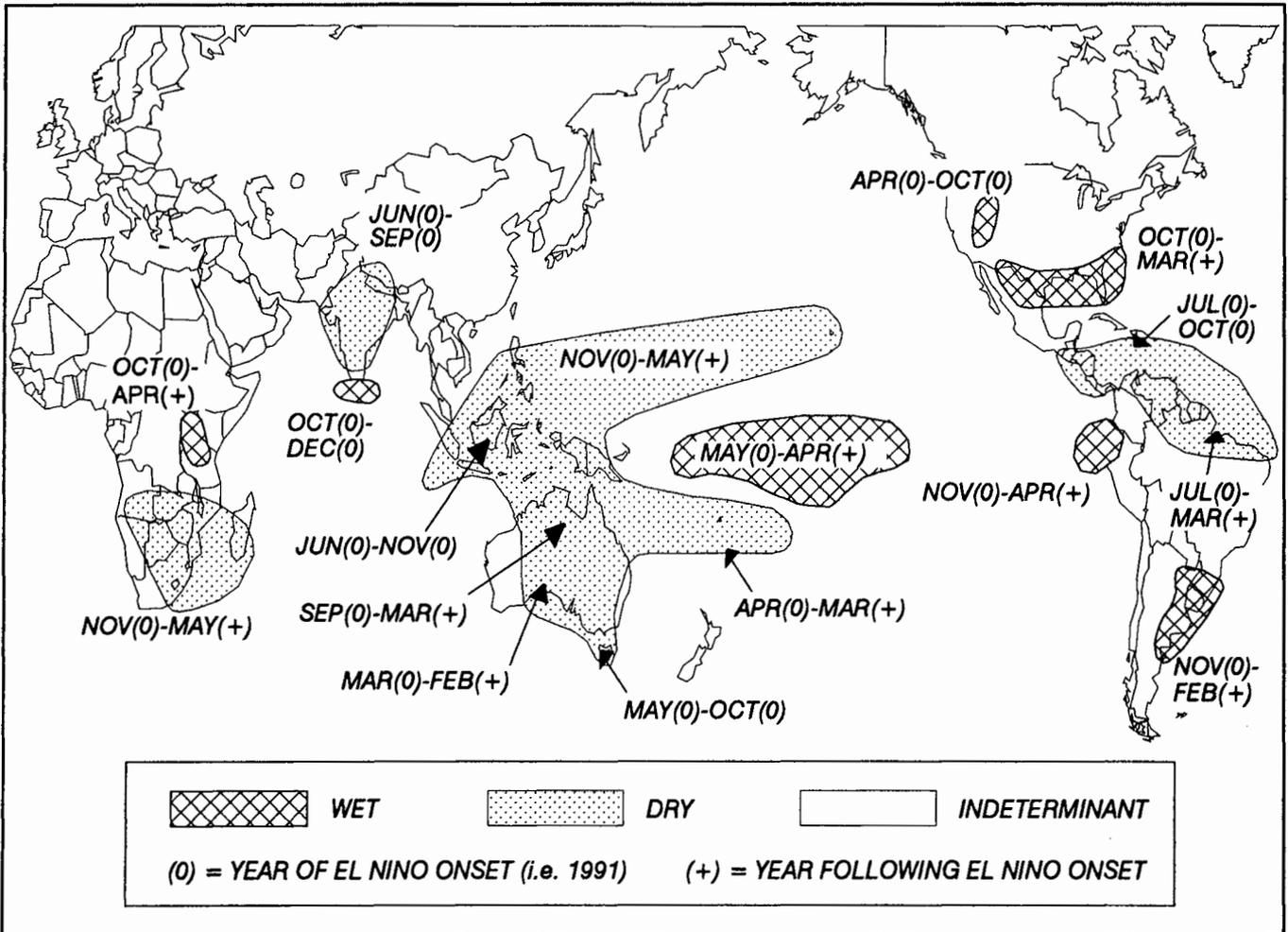
Sources:

1. Stefanski, R. "El Niño: Background, Mechanisms, and Impacts," *Weekly Weather and Crop Bulletin*, 79(5), 1992, pp.19.

2. Stefanski, R. "El Niño: Background, Mechanisms, and Impacts," *Sugar and Sweetener Situation Outlook Report*, U.S. Department of Agriculture, March 1992, SSRV17N1, pp.8-9.

3. Ropelewski, C. F. and M. S. Halpert, 1987. "Global and Regional Scale Precipitation Associated with El Niño/Southern Oscillation," *Monthly Weather Review*, 115,1987,pp. 1606-1626.

**Figure A-1
Potential Rainfall Impacts From El Niño**



Based on statistical correlations.

List of Tables and Figures

Page

Text:

1. Corn supply, disappearance, and stocks; December-February.	6
2. Change in net returns per acre, 1991 to 1992.	8
3. Corn: Food, seed and industrial use, 1980/81-1992/93.	12
4. World coarse grain trade: Major exporters and importers by commodity, 1988/89-1992/93.	21

Figures:

1. Corn planting intentions	5
2. Corn planting progress	5
3. Corn prices	6
4. Sorghum planting intentions	7
5. Barley cash prices	9
6. Feed use of grains and animal units	11
7. Corn and corn milling byproduct values	12
8. Railcar unloadings of grain.	14
9. Railcar loadings of grain and soybeans	14
10. Rail rate index of grain	15
11. Average monthly grain shipments	15
12. Barge rates to New Orleans	16
13. River stages at St. Louis	16
14. River stages at Sioux City.	17
15. River stages at Kansas City	17
16. World coarse grains ending stocks	18
17. Foreign coarse grain area and yield	18
18. Foreign coarse grains production and use	19
19. World coarse grain trade and U.S. market share	20

Special Article

Text:

A1. Number of above, normal, or below yield departures in relation to the previous 1 El Niño events and during 22 non El Niño years for selected U.S. coarse grain yield series.	23
--	----

Figure:

A1. Potential rainfall impacts from El Niño	24
---	----

Appendix Tables

	Page
1. Feed grains: Marketing year supply and disappearance, 1985/86-1992/93	27
2. Foreign coarse grains: Supply and disappearance, 1980/81-1992/93	28
3. Corn: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93	29
4. Sorghum: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93	30
5. Barley: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93	31
6. Oats: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93	32
7. Corn: Marketing year supply and disappearance, 1985/86-1992/93	33
8. Sorghum: Marketing year supply and disappearance, 1985/86-1992/93	34
9. Barley: Marketing year supply and disappearance, 1985/86-1992/93	35
10. Oats: Marketing year supply and disappearance, 1985/86-1992/93	36
11. Average prices received by farmers, United States, by month, and loan rate, 1983-91	37
12. Cash prices at principal markets, 1985-91	38
13. Feed-price ratios for livestock, poultry, and milk, by months, 1983-91	39
14. Price trends, selected feeds, and corn products	40
15. Corn, sorghum, barley, and oats exports, 1989/90 to date	41
16. Corn, sorghum, barley, and oats imports, 1989/90 to date	42
17. Shipments of grain on the Illinois Waterway and the Mississippi River (Locks 11-22), 1981/82-1991/92	43
18. Barge rates for grain shipments to New Orleans, Louisiana	43
19. Weekly average of rail car loadings of grain and soybeans, 1979/80-1991/92	44
20. Rail freight rate index for grain, crop years 1979/80-1991/92	44
21. Hay (all): Acreage, supply, and disappearance, 1985/86-1992/93	45
22. Hay: Average prices received by farmers, United States, by months, 1983/84-1991/92	45
23. Processed feeds: Quantity fed, 1983-91	46

Appendix table 1--Feed grains: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93 1/

Year 2/	Supply				Disappearance					Ending stocks			
	Begin- ning stocks	Produc- tion	Imports	Total	Food, alcohol, and industrial	Domestic use Seed	Feed and residual	Total	Exports	Total disap- pearance	Govt. owned	Privately owned 3/	Total
Million metric tons													
1985/86	57.5	274.3	0.8	332.6	33.5	1.5	135.1	170.0	36.1	206.2	20.4	106.0	126.4
1986/87	126.4	251.6	0.7	378.7	35.0	1.4	144.3	180.7	45.9	226.6	48.7	103.4	152.1
1987/88	152.1	216.5	1.0	369.6	35.9	1.3	146.7	183.9	52.1	236.0	34.1	99.5	133.6
1988/89	133.6	149.3	1.2	284.2	37.5	1.2	118.5	157.2	61.1	218.3	18.6	47.3	65.9
1989/90	65.9	221.0	1.3	288.2	39.2	1.1	132.7	173.0	69.7	242.7	10.5	35.0	45.5
1990/91	45.5	230.5	1.3	277.3	39.5	1.1	137.5	178.1	51.5	229.6	11.3	36.4	47.7
1991/92 4/	47.7	218.2	2.1	268.0	---42.7---		141.9	184.6	47.8	232.4	0.9	34.7	35.5
1992/93 5/	35.5	248.7	1.6	285.9	---43.8---		144.9	188.7	47.6	236.2			49.7

	Area			Yield per harvested hectare	Average price received by farmers 7/	Government- support program Total payments to participants
	Set-aside and diverted 6/	Planted	Harvested for grain			
-----Million hectares-----			Metric tons	1977=100	\$ million	
1985/86	2.9	51.8	45.2	6.07	110	8/ 2,874
1986/87	8.0	48.5	41.1	6.12	74	9/ 7,280
1987/88	12.5	43.1	35.2	6.15	96	9/ 8,447
1988/89	11.1	41.2	32.6	4.58	126	9/ 4,207
1989/90	6.8	42.9	36.8	6.00	118	8/ 4,091
1990/91	6.9	41.8	36.2	6.36	114	8/ 3,399
1991/92	5.1	42.3	37.2	5.87		8/ 2,458

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-aside include idled acreage and acreage planted to minor oilseeds. 7/ Excludes support payments. 8/ Deficiency payments. 9/ Deficiency and diversion payments.

Appendix table 2--Foreign coarse grains: Supply and disappearance, 1980/81-1992/93 1/

Year	Beginning stocks	Production	Feed	Total disappearance	Imports	Adjusted imports 2/	Ending stocks
Million metric tons							
Corn:							
1980/81	45.8	240.1	168.4	297.7	79.0 ⁶	78.1	48.9
1981/82	48.9	235.1	175.9	291.0	77.6	67.3	43.8
1982/83	43.8	230.5	174.3	281.5	73.1	63.3	39.1
1983/84	39.1	241.5	167.7	288.6	64.8	61.1	39.8
1984/85	39.8	264.1	183.6	303.5	72.5	66.5	47.4
1985/86	47.4	254.0	185.7	291.2	62.0	54.2	41.1
1986/87	41.1	266.1	193.1	307.9	60.8	56.6	37.2
1987/88	37.2	269.3	198.3	311.6	63.6	56.6	38.4
1988/89	38.4	275.7	213.5	325.7	74.7	65.3	39.7
1989/90	39.7	270.8	219.2	333.8	82.0	74.8	36.9
1990/91	36.9	276.1	190.9	313.4	63.7	60.0	43.2
1991/92 3/	43.2	289.9	208.0	321.1	69.1	59.8	50.9
1992/93 4/	50.9	291.3	211.9	331.5	62.3	57.7	49.9
Sorghum:							
1980/81	6.9	44.6	23.3	50.8	12.8	14.1	8.1
1981/82	8.1	48.2	28.5	55.5	14.3	13.7	7.4
1982/83	7.4	43.9	25.2	50.5	12.3	11.6	6.1
1983/84	6.1	46.2	25.7	52.0	13.0	13.0	6.5
1984/85	6.5	43.8	26.1	51.9	12.9	13.1	6.0
1985/86	6.0	41.7	24.9	47.3	9.6	8.8	5.0
1986/87	5.0	40.5	23.3	46.3	8.1	7.8	4.2
1987/88	4.2	37.7	22.7	44.8	8.8	8.3	3.1
1988/89	3.1	39.9	24.2	46.6	11.0	10.8	4.3
1989/90	4.3	39.4	22.1	47.2	9.3	9.0	4.2
1990/91	4.2	37.9	21.2	44.5	8.0	7.9	3.5
1991/92 3/	3.5	38.9	20.6	45.2	8.3	8.2	3.4
1992/93 4/	3.4	39.1	20.6	45.9	8.2	8.1	2.9
Barley:							
1980/81	16.9	151.9	112.5	153.2	16.3	13.8	17.1
1981/82	17.1	141.9	105.9	146.5	20.4	13.9	14.4
1982/83	14.4	152.6	109.9	149.8	17.2	13.1	17.9
1983/84	17.9	149.9	116.5	156.7	20.2	16.4	12.9
1984/85	12.9	160.2	117.5	155.5	22.9	17.9	19.0
1985/86	19.0	162.3	121.8	159.0	22.1	18.2	22.6
1986/87	22.6	165.6	126.0	164.3	24.0	18.4	26.7
1987/88	26.7	164.9	129.9	168.7	20.8	15.7	25.2
1988/89	25.2	158.5	119.3	158.7	20.6	16.9	26.5
1989/90	26.5	157.9	123.9	162.1	20.6	15.6	23.8
1990/91	23.8	169.7	129.0	168.0	22.7	17.9	27.1
1991/92 3/	27.1	158.9	120.3	161.6	21.2	19.2	26.0
1992/93 4/	26.0	157.8	117.3	158.3	21.8	18.1	26.9
Total coarse grains: 5/							
1980/81	77.4	527.7	350.8	593.6	110.3	108.1	81.5
1981/82	81.5	514.9	352.8	582.8	114.5	97.5	72.8
1982/83	72.8	527.0	359.8	578.9	103.9	89.5	73.2
1983/84	73.2	542.8	360.7	600.7	99.6	92.8	70.8
1984/85	70.8	571.8	379.5	612.2	110.8	99.7	85.9
1985/86	85.9	560.9	387.3	601.0	95.5	82.3	81.1
1986/87	81.1	572.6	396.0	617.5	94.8	82.9	81.4
1987/88	81.4	569.8	403.8	622.8	95.2	82.8	79.5
1988/89	79.5	573.9	406.1	630.2	107.9	94.7	83.2
1989/90	83.2	573.4	420.9	646.9	113.9	100.8	78.1
1990/91	78.1	591.5	399.6	630.6	96.2	86.3	89.0
1991/92 3/	89.0	580.3	399.3	620.6	100.2	88.3	94.2
1992/93 4/	94.2	585.0	396.0	630.5	93.7	84.7	94.5

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, 1985/86-1992/93

Year beginning September 1	Supply				Disappearance					Ending stocks Aug. 31			
	Beginning stocks	Production	Imports	Total	Food, alcohol, and industrial	Domestic use Seed	Feed and residual	Total	Exports	Total disappearance	Govt. owned	Privately owned 1/	Total
Million bushels													
1985/86	1,648.2	8,875.5	9.9	10,533.6	1,133.0	19.5	4,114.2	5,266.7	1,227.3	6,494.1	545.7	3,493.8	4,039.5
1986/87	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	3,940.9	5,234.3	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	1,348.0	19.3	4,668.7	6,036.0	1,724.6	7,760.7	371.1	1,150.1	1,521.2
1991/92 2/	1,521.2	7,474.5	20.0	9,015.7	---1,445.0---		4,900.0	6,345.0	1,550.0	7,895.0	25.0	1,095.7	1,120.7
1992/93 3/	1,120.7	8,575.0	10.0	9,705.7	---1,485.0---		5,000.0	6,485.0	1,550.0	8,035.0			1,670.7

	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
-----Million acres----- Bushels -----\$/bu.----- \$ million											
1985/86	5.4	83.4	75.2	118.0	2.23	2.37	2.25	2.52	2.55	3.03	6/ 2,479
1986/87	14.3	76.6	68.9	119.4	1.50	1.68	1.53	1.83	1.92	3.03	7/ 6,327
1987/88	23.1	66.2	59.5	119.8	1.94	2.19	1.98	2.39	1.82	3.03	7/ 7,378
1988/89	20.5	67.7	58.3	84.6	2.54	2.72	2.49	2.93	1.77	2.93	8/ 3,625
1989/90	10.8	72.2	64.7	116.3	2.36	2.58	2.41	2.79	1.65	2.84	9/ 3,589
1990/91	10.7	74.2	67.0	118.5	2.28	2.49	2.28	2.67	1.57	2.75	6/ 3,015
1991/92	7.5	76.0	68.8	108.6	2.30-2.50				1.62	2.75	6/ 2,080

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-aside include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Deficiency payments. 7/ Deficiency and diversion payments. 8/ Deficiency, diversion, and disaster payments. 9/ Deficiency and disaster payments.

Appendix table 4--Sorghum: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93

Year beginning September 1	Supply				Disappearance					Ending stocks Aug. 31			
	Beginning stocks	Production	Imports	Total	Domestic use		Exports	Total disappearance	Govt. owned	Privately owned 1/	Total		
					Food, alcohol, and industrial	Seed						Feed and residual	
Million bushels													
1985/86	300.3	1,120.3	0.0	1,420.6	26.0	1.7	663.9	691.6	178.0	869.6	207.2	343.8	551.0
1986/87	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	1.1	517.5	532.2	303.2	835.4	162.5	57.3	219.8
1990/91	219.8	573.3	0.1	793.1	12.7	1.3	404.5	418.5	232.0	650.5	64.7	77.9	142.6
1991/92 2/	142.6	579.5	0.0	722.1	----15.0----		355.0	370.0	245.0	615.0	5.0	102.1	107.1
1992/93 3/	107.1	700.0	0.0	807.1	----15.0----		425.0	440.0	245.0	685.0			122.1

	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
1985/86	0.9	18.3	16.8	66.8	3.45	3.72	4.32	4.07	4.32	5.14	6/ 228
1986/87	2.9	15.3	13.9	67.7	2.45	2.73	3.24	3.22	3.25	5.14	7/ 570
1987/88	4.1	11.8	10.5	69.4	3.04	3.40	3.81	3.96	3.11	5.14	7/ 708
1988/89	3.9	10.3	9.0	63.8	4.05	4.17	4.66	4.81	3.00	4.96	8/ 352
1989/90	3.3	12.6	11.1	55.4	3.75	4.21	4.38	4.76	2.80	4.82	9/ 421
1990/91	3.3	10.5	9.1	63.1	3.79	4.08	4.48	4.65	2.66	4.66	6/ 317
1991/92	2.4	11.0	9.8	59.0	3.93-4.29				2.75	4.66	6/ 176

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-aside include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Deficiency payments. 7/ Deficiency and diversion payments. 8/ Deficiency, diversion and disaster payments. 9/ Deficiency and disaster payments.

Appendix table 5--Barley: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93

Year beginning June 1	Supply				Disappearance					Ending stocks May 31			
	Beginning stocks	Production	Imports	Total	Domestic use			Exports	Total disappearance	Govt. owned	Privately owned 1/	Total	
					Food, alcohol, and industrial	Seed	Feed and residual						
Million bushels													
1985/86	247.4	590.2	6.2	843.9	156.5	21.3	319.1	496.9	19.7	516.7	57.4	269.8	327.2
1986/87	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	13.4	193.4	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 2/	135.4	464.5	25.0	624.9	---175.0---		225.0	400.0	100.0	500.0	6.0	118.9	124.9
1992/93 3/	124.9	420.0	20.0	564.9	---175.0---		185.0	360.0	90.0	450.0			114.9

	Area			Yield per harvested acre	Average prices				Government support program			
	Set-aside and diverted 4/	Planted	Harvested for grain		Received by farmers 5/	---Minneapolis---		Portland No. 2	National average loan rate	Target price	Total payments to participants	
						No. 2 or better feed 6/	No. 3 or better malting					
-----Million acres-----												
-----Bushels				-----\$/bu.-----							-----\$ million	
1985/86	0.7	13.2	11.6	51.0	1.98	1.53	2.24	2.23	2.08	2.60	7/ 159	
1986/87	2.0	13.1	12.0	50.8	1.61	1.44	1.89	1.96	1.56	2.60	8/ 351	
1987/88	2.9	11.0	10.0	52.4	1.81	1.78	2.04	2.09	1.49	2.60	8/ 335	
1988/89	2.8	9.8	7.6	38.0	2.79	2.32	4.11	2.74	1.44	2.51	9/ 181	
1989/90	2.3	9.1	8.3	48.6	2.42	2.20	3.28	2.61	1.34	2.43	10/ 78	
1990/91	2.9	8.2	7.5	56.1	2.14	2.13	2.42	2.65	1.28	2.36	7/ 59	
1991/92	2.2	8.9	8.4	55.2	2.10				1.32	2.36	7/ 172	

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-aside include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Starting March 1987, shifted to Duluth. 7/ Deficiency payments. 8/ Deficiency and diversion payments. 9/ Deficiency, diversion and disaster payments. 10/ Deficiency and disaster payments.

Appendix table 6--Oats: Marketing year supply and disappearance, area, and prices, 1985/86-1992/93

Year beginning June 1	Supply				Disappearance					Ending stocks May 31			
	Beginning stocks	Production	Imports	Total	Domestic use			Exports	Total disappearance	Govt. owned	Privately owned 1/		
					Food, alcohol, and industrial	Seed	Feed and residual				Total	Govt. owned	Privately owned 1/
Million bushels													
1985/86	179.9	518.5	27.2	725.7	44.0	32.5	464.2	540.7	1.2	541.9	1.9	181.8	183.7
1986/87	183.7	385.0	32.4	601.1	45.0	38.0	384.5	467.5	0.9	468.4	3.5	129.2	132.7
1987/88	132.7	373.7	45.7	552.1	49.8	31.6	358.2	439.6	0.5	440.1	3.5	108.5	112.0
1988/89	112.0	217.6	62.9	392.5	72.7	27.1	193.8	293.6	0.6	294.2	2.4	95.9	98.3
1989/90	98.3	373.6	66.4	538.3	91.6	23.0	266.0	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 2/	171.2	242.5	70.0	483.8	---125.0---		245.0	370.0	0.7	370.7	0.0	113.1	113.1
1992/93 3/	113.1	275.0	65.0	453.1	---130.0---		210.0	340.0	0.5	340.5			112.6

	Area			Yield per harvested acre	Average prices				Government-support program		
	Set-aside and diverted 4/	Planted	Harvested for grain		Received by farmers 5/	Minneapolis No. 2 white, heavy	Portland No. 2 white, heavy	Toledo No. 2	National average loan rate	Target price	Total payments to participants
1985/86	0.1	13.3	8.2	63.7	1.23	1.31	1.60	1.08	1.31	1.60	6/ 8
1986/87	0.5	14.7	6.8	56.3	1.21	1.46	1.53	1.20	0.99	1.60	7/ 32
1987/88	0.8	17.9	6.9	54.3	1.56	1.92	1.76	1.68	0.94	1.60	7/ 26
1988/89	0.3	13.9	5.5	39.3	2.61	2.80	2.24	2.26	0.90	1.55	8/ 49
1989/90	0.4	12.1	6.9	54.3	1.49	1.65	1.63	1.40	0.85	1.50	9/ 3
1990/91	0.2	10.4	5.9	60.1	1.14	1.30	1.58	1.17	0.81	1.45	6/ 8
1991/92	0.6	8.7	4.8	50.6	1.20				0.83	1.45	6/ 30

NA = Not available.

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-aside include idled acreage and acreage planted to minor oilseeds. 5/ Excludes support payments. 6/ Deficiency payments. 7/ Deficiency and diversion payments. 8/ Deficiency, diversion and disaster payments. 9/ Disaster payments.

Appendix table 7--Corn: Marketing year supply and disappearance, specified periods, 1985/86-1992/93

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/	Total	
					Food, alcohol, and industrial	Seed	Feed and residual						
Million bushels													
1985/86:													
Sept.-Nov.	1,648.2	8,875.5	0.9	10,524.5	276.3	0.0	1,218.7	1,495.0	414.8	1,909.8	388.6	8,226.1	8,614.7
Dec.-Feb.	8,614.7	---	1.0	8,615.7	262.4	0.0	1,306.0	1,568.3	460.2	2,028.6	509.4	6,077.7	6,587.1
Mar.-May	6,587.1	---	2.2	6,589.3	291.2	16.1	1,090.6	1,397.9	201.4	1,599.3	550.9	4,439.1	4,990.0
June-Aug.	4,990.0	---	5.9	4,995.9	303.1	3.4	499.0	805.5	150.9	956.4	545.7	3,493.8	4,039.5
Mkt. year	1,648.2	8,875.5	9.9	10,533.6	1,133.0	19.5	4,114.2	5,266.7	1,227.3	6,494.1	545.7	3,493.8	4,039.5
1986/87:													
Sept.-Nov.	4,039.5	8,225.8	0.7	12,266.0	287.6	0.0	1,354.7	1,642.3	318.2	1,960.5	968.2	9,337.3	10,305.5
Dec.-Feb.	10,305.5	---	0.2	10,305.7	277.3	0.0	1,467.3	1,744.6	312.8	2,057.5	1,362.2	6,886.0	8,248.2
Mar.-May	8,248.2	---	0.4	8,248.6	318.4	16.4	1,085.6	1,420.4	496.1	1,916.4	1,491.5	4,840.7	6,332.2
June-Aug.	6,332.2	---	0.4	6,332.6	323.5	0.3	761.8	1,085.6	365.3	1,450.9	1,443.2	3,438.5	4,881.7
Mkt. year	4,039.5	8,225.8	1.8	12,267.0	1,206.8	16.7	4,669.4	5,892.9	1,492.5	7,385.3	1,443.2	3,438.5	4,881.7
1987/88:													
Sept.-Nov.	4,881.7	7,131.3	0.6	12,013.6	295.4	0.0	1,551.6	1,847.0	395.6	2,242.6	1,683.4	8,087.6	9,771.0
Dec.-Feb.	9,771.0	---	0.7	9,771.7	285.3	0.0	1,446.1	1,731.4	404.7	2,136.1	1,767.7	5,867.9	7,635.6
Mar.-May	7,635.6	---	1.4	7,637.0	318.6	16.7	952.8	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	1,340.8	1,646.0	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	1,071.6	1,366.4	501.8	1,868.3	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	3,940.9	5,234.3	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	16.1	987.1	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	2.8	623.3	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	1,636.4	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	312.5	0.0	1,368.4	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	351.1	17.6	975.5	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	362.5	1.7	688.6	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	1,347.9	19.3	4,668.9	6,036.0	1,724.6	7,760.7	371.1	1,150.1	1,521.2
1991/92:													
Sept.-Nov.	1,521.2	7,474.5	6.5	9,002.2	351.1	0.0	1,688.9	2,040.0	421.1	2,461.1	249.7	6,291.4	6,541.1
Dec.-Feb.	6,541.1	---	4.4	6,545.5	336.6	0.0	1,288.4	1,624.9	361.7	1,986.6	225.0	4,333.9	4,558.9
Mar.-May													
June-Aug.													
Mkt. year 2/	1,521.2	7,474.5	20.0	9,015.7	---1,445.0---		4,900.0	6,345.0	1,550.0	7,895.0	25.0	1,095.7	1,120.7
1992/93:													
Mkt. year 3/	1,120.7	8,575.0	10.0	9,705.7	---1,485.0---		5,000.0	6,485.0	1,550.0	8,035.0			1,670.7

--- = Not applicable.

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

Appendix table 8--Sorghum: Marketing year supply and disappearance, 1985/86-1992/93

Year Beginning September 1	Supply				Disappearance					Ending stocks			
	Begin- ning stocks	Produc- tion	Imports	Total	Food, alcohol, and industrial	Domestic use Seed	Feed and residual	Total	Exports	Total disap- pearance	Govt. owned	Privately owned 1/	Total
Million bushels													
1985/86:													
Sept.-Nov.	300.3	1,120.3	0.0	1,420.6	7.6	0.0	230.4	238.0	70.2	308.3	138.6	973.7	1,112.3
Dec.-Feb.	1,112.3	---	0.0	1,112.3	7.9	0.0	232.8	240.7	43.1	283.9	175.2	653.3	828.5
Mar.-May	828.5	---	0.0	828.5	6.6	1.2	163.7	171.5	26.9	198.4	181.4	448.6	630.0
June-Aug.	630.0	---	0.0	630.0	3.9	0.5	36.9	41.3	37.7	79.0	207.2	343.8	551.0
Mkt. year	300.3	1,120.3	0.0	1,420.6	26.0	1.7	663.9	691.6	178.0	869.6	207.2	343.8	551.0
1986/87:													
Sept.-Nov.	551.0	938.9	0.0	1,489.9	2.8	0.0	180.4	183.3	47.5	230.7	292.1	967.1	1,259.2
Dec.-Feb.	1,259.2	---	0.0	1,259.2	2.9	0.0	182.3	185.3	56.2	241.4	364.9	652.8	1,017.7
Mar.-May	1,017.7	---	0.0	1,017.7	2.4	1.0	128.2	131.6	51.2	182.8	400.4	434.6	835.0
June-Aug.	835.0	---	0.0	835.0	2.2	0.6	45.3	48.1	43.5	91.6	408.9	334.4	743.3
Mkt. year	551.0	938.9	0.0	1,489.9	10.4	1.6	536.2	548.2	198.3	746.5	408.9	334.4	743.3
1987/88:													
Sept.-Nov.	743.3	730.8	0.0	1,474.1	4.9	0.0	171.3	176.2	45.5	221.7	465.3	787.1	1,252.4
Dec.-Feb.	1,252.4	---	0.0	1,252.4	5.1	0.0	173.1	178.2	63.1	241.3	545.5	465.6	1,011.1
Mar.-May	1,011.1	---	0.0	1,011.1	4.2	0.8	121.2	126.2	77.1	203.3	511.4	296.4	807.8
June-Aug.	807.8	---	0.0	807.9	9.3	0.5	89.6	99.4	45.8	145.2	463.6	199.1	662.7
Mkt. year	743.3	730.8	0.0	1,474.1	23.5	1.3	555.1	579.9	231.6	811.5	463.6	199.1	662.7
1988/89:													
Sept.-Nov.	662.7	576.7	0.0	1,239.3	5.9	0.0	171.3	177.1	64.5	241.6	432.9	564.8	997.7
Dec.-Feb.	997.7	---	0.0	997.7	6.1	0.0	173.1	179.2	93.5	272.6	396.4	328.7	725.1
Mar.-May	725.1	---	0.0	725.1	5.0	0.8	79.7	85.5	80.6	166.1	363.8	195.2	559.0
June-Aug.	559.0	---	0.0	559.0	3.5	0.7	42.3	46.5	73.0	119.5	340.9	98.6	439.5
Mkt. year	662.7	576.7	0.0	1,239.3	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	0.6	94.3	97.4	81.3	178.7	190.2	144.8	335.0
June-Aug.	335.0	---	0.1	335.1	3.1	0.5	61.0	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	1.1	517.5	532.2	303.2	835.4	162.5	57.3	219.8
1990/91:													
Sept.-Nov.	219.8	573.3	0.0	793.1	3.7	0.0	220.4	224.1	56.6	280.7	157.7	354.6	512.3
Dec.-Feb.	512.3	---	0.0	512.3	3.5	0.0	114.7	118.2	61.2	179.5	149.6	183.3	332.9
Mar.-May	332.9	---	0.1	332.9	2.5	0.7	31.7	34.9	76.0	110.9	108.4	113.6	222.0
June-Aug.	222.0	---	0.0	222.0	3.0	0.6	37.6	41.2	38.2	79.4	64.7	77.9	142.6
Mkt. year	219.8	573.3	0.1	793.1	12.7	1.3	404.5	418.5	232.0	650.5	64.7	77.9	142.6
1991/92:													
Sept.-Nov.	142.6	579.5	0.0	722.1	3.7	0.0	221.7	225.4	46.2	271.6	34.3	416.2	450.5
Dec.-Feb.	450.5	---	0.0	450.5	3.5	0.0	87.5	91.0	108.2	199.3	32.0	219.2	251.2
Mar.-May													
June-Aug.													
Mkt. year 2/	142.6	579.5	0.0	722.1	----15.0----		355.0	370.0	245.0	615.0	5.0	102.1	107.1
1992/93:													
Mkt. year 3/	107.1	700.0	0.0	807.1	----15.0----		425.0	440.0	245.0	685.0			122.1

--- = 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, 1985/86-1992/93

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													
1985/86:													
June-Aug.	247.4	590.2	0.7	838.3	41.6	0.0	88.0	129.6	10.4	140.0	20.0	678.3	698.3
Sept.-Nov.	698.3	---	1.3	699.6	35.8	1.5	82.9	120.3	7.3	127.5	36.1	536.0	572.1
Dec.-Feb.	572.1	---	2.5	574.6	35.8	1.7	71.1	108.7	1.3	109.9	47.3	417.4	464.7
Mar.-May	464.7	---	1.7	466.4	43.3	18.1	77.1	138.5	0.8	139.2	57.4	269.8	327.2
Mkt. year	247.4	590.2	6.2	843.9	156.5	21.3	319.1	496.9	19.7	516.7	57.4	269.8	327.2
1986/87:													
June-Aug.	327.2	608.5	1.3	937.1	42.4	0.0	94.4	136.8	13.5	150.3	56.0	730.8	786.8
Sept.-Nov.	786.8	---	1.0	787.8	36.7	1.3	72.0	110.0	43.5	153.5	66.2	568.1	634.3
Dec.-Feb.	634.3	---	1.2	635.5	36.0	1.4	67.0	104.4	31.8	136.2	75.2	424.1	499.3
Mar.-May	499.3	---	3.1	502.4	41.8	15.2	64.3	121.3	44.8	166.1	75.5	260.8	336.3
Mkt. year	327.2	608.5	6.7	942.4	156.9	17.9	297.7	472.5	133.6	606.1	75.5	260.8	336.3
1987/88:													
June-Aug.	336.3	521.5	1.1	858.9	42.7	0.0	74.3	117.1	16.8	133.9	74.9	650.1	725.0
Sept.-Nov.	725.0	---	2.9	727.9	37.1	1.1	64.8	103.0	42.5	145.5	79.5	502.9	582.4
Dec.-Feb.	582.4	---	4.3	586.7	36.3	1.3	57.6	95.2	33.0	128.2	57.0	401.5	458.5
Mar.-May	458.5	---	3.0	461.5	42.0	13.3	56.5	111.8	28.6	140.4	50.1	271.0	321.1
Mkt. year	336.3	521.5	11.3	869.1	158.1	15.7	253.2	427.0	121.0	548.0	50.1	271.0	321.1
1988/89:													
June-Aug.	321.1	290.0	2.8	613.9	44.0	0.0	93.7	137.7	25.8	163.5	35.9	414.5	450.4
Sept.-Nov.	450.4	---	2.2	452.6	38.4	1.1	28.4	67.8	12.6	80.5	35.9	336.2	372.1
Dec.-Feb.	372.1	---	2.8	374.9	36.2	1.2	41.6	79.1	15.3	94.3	34.1	246.5	280.6
Mar.-May	280.6	---	2.7	283.3	41.8	12.7	7.2	61.7	25.2	86.9	30.4	166.0	196.4
Mkt. year	321.1	290.0	10.5	621.6	160.4	15.0	170.9	346.3	78.9	425.2	30.4	166.0	196.4
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	1.0	11.8	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	11.3	27.5	78.5	17.6	96.1	19.3	141.5	160.8
Mkt. year	196.4	404.2	13.1	613.7	162.0	13.4	193.4	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	1.1	41.7	80.4	18.6	99.0	9.6	201.3	210.9
Mar.-May	210.9	---	7.0	217.9	39.8	12.5	24.2	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	464.5	7.4	607.3	44.7	0.0	109.2	153.9	13.5	167.4	7.7	432.3	440.0
Sept.-Nov.	440.0	---	3.5	443.4	37.9	0.9	39.5	78.3	36.7	115.0	7.0	321.4	328.4
Dec.-Feb.	328.4	---	6.5	334.8	33.6	1.0	57.0	91.6	24.6	116.2	5.0	213.6	218.6
Mar.-May 2/	218.6	---	7.6	226.3	---	56.9---	19.3	19.3	25.2	44.5	6.0	175.8	181.8
Mkt. year 2/	135.4	464.5	25.0	624.9	---	175.0---	225.0	400.0	100.0	500.0	6.0	118.9	124.9
1992/93:													
Mkt. year 3/	124.9	420.0	20.0	564.9	---	175.0---	185.0	360.0	90.0	450.0			114.9

--- = Not applicable.

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

Appendix table 10--Oats: Marketing year supply and disappearance, 1985/86-1992/93

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													
1985/86:													
June-Aug.	179.9	518.5	4.4	702.9	12.8	0.0	135.8	148.7	0.1	148.8	1.5	552.6	554.1
Sept.-Nov.	554.1	---	4.2	558.3	11.2	3.9	118.1	133.2	0.3	133.5	1.9	422.9	424.8
Dec.-Feb.	424.8	---	8.9	433.7	10.9	1.0	109.3	121.2	0.1	121.2	2.0	310.5	312.5
Mar.-May	312.5	---	9.7	322.2	9.0	27.6	101.0	137.7	0.8	138.4	1.9	181.8	183.7
Mkt. year	179.9	518.5	27.2	725.7	44.0	32.5	464.2	540.7	1.2	541.9	1.9	181.8	183.7
1986/87:													
June-Aug.	183.7	385.0	8.7	577.4	13.1	0.0	112.5	125.6	0.2	125.9	2.4	449.2	451.6
Sept.-Nov.	451.6	---	4.8	456.4	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	258.2	9.3	32.3	83.7	125.2	0.3	125.5	3.5	129.2	132.7
Mkt. year	183.7	385.0	32.4	601.1	45.0	38.0	384.5	467.5	0.9	468.4	3.5	129.2	132.7
1987/88:													
June-Aug.	132.7	373.7	7.0	513.4	14.5	0.0	104.8	119.3	0.2	119.5	3.3	390.6	393.9
Sept.-Nov.	393.9	---	8.1	402.0	12.7	3.8	91.1	107.6	0.1	107.8	3.4	290.8	294.2
Dec.-Feb.	294.2	---	15.8	310.0	12.3	0.9	84.3	97.6	0.1	97.7	3.4	208.8	212.2
Mar.-May	212.2	---	14.8	227.1	10.2	26.9	77.9	115.0	0.1	115.1	3.5	108.5	112.0
Mkt. year	132.7	373.7	45.7	552.1	49.8	31.6	358.2	439.6	0.5	440.1	3.5	108.5	112.0
1988/89:													
June-Aug.	112.0	217.6	12.3	341.8	21.2	0.0	56.7	77.9	0.2	78.1	3.0	260.8	263.8
Sept.-Nov.	263.8	---	11.9	275.7	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	157.3	159.9
Mar.-May	159.9	---	18.6	178.5	15.0	23.0	42.2	80.1	0.1	80.2	2.4	95.9	98.3
Mkt. year	112.0	217.6	62.9	392.5	72.7	27.1	193.8	293.6	0.6	294.2	2.4	95.9	98.3
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	2.8	77.1	103.2	0.3	103.5	1.2	286.1	287.3
Dec.-Feb.	287.3	---	15.7	303.0	22.6	0.7	64.8	88.1	0.2	88.2	1.1	213.6	214.7
Mar.-May	214.7	---	16.3	231.0	19.1	19.5	35.3	73.9	0.2	74.1	0.7	156.2	156.9
Mkt. year	98.3	373.6	66.4	538.3	91.6	23.0	266.0	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	2.7	41.7	69.1	0.2	69.3	0.6	293.5	294.1
Dec.-Feb.	294.1	---	18.2	312.3	24.6	0.6	57.8	83.0	0.1	83.1	0.5	228.8	229.3
Mar.-May	229.3	---	16.0	245.2	22.9	15.8	35.2	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	242.5	21.7	435.5	30.5	0.0	120.8	151.3	0.1	151.4	0.6	283.5	284.1
Sept.-Nov.	284.1	---	17.3	301.4	26.5	2.6	27.5	56.6	0.2	56.8	0.3	244.3	244.6
Dec.-Feb.	244.6	---	17.6	262.3	26.0	0.5	61.7	88.2	0.2	88.4	0.3	173.6	173.9
Mar.-May 1/	173.9	---	13.3	187.2	---	38.9	35.1	35.1	0.2	74.1	0.0	113.1	113.1
Mkt. year 1/	171.2	242.5	70.0	483.8	---	125.0	245.0	370.0	0.7	370.7	0.0	113.1	113.1
1992/93:													
Mkt. year 2/	113.1	275.0	65.0	453.1	---	130.0	210.0	340.0	0.5	340.5			112.6

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

Appendix table 11--Average prices received by farmers, United States, by month, and loan rate, 1983-91 1/

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. 2/	May	June	July	Aug.	Average 3/	Loan rate
\$ /bu.														
Corn:														
1983	3.32	3.15	3.17	3.15	3.15	3.11	3.21	3.32	3.34	3.36	3.30	3.12	3.21	2.65
1984	2.90	2.65	2.55	2.56	2.64	2.62	2.67	2.70	2.68	2.64	2.60	2.44	2.63	2.55
1985	2.29	2.11	2.21	2.29	2.33	2.32	2.29	2.30	2.39	2.32	2.00	1.73	2.23	2.55
1986	1.45	1.40	1.47	1.50	1.48	1.42	1.47	1.52	1.66	1.69	1.60	1.47	1.50	1.92
1987	1.49	1.55	1.61	1.72	1.77	1.83	1.86	1.88	1.94	2.41	2.72	2.65	1.94	1.82
1988	2.60	2.58	2.51	2.53	2.60	2.59	2.60	2.56	2.58	2.52	2.47	2.27	2.54	1.77
1989	2.29	2.22	2.24	2.27	2.31	2.32	2.37	2.51	2.62	2.63	2.62	2.51	2.36	1.65
1990	2.32	2.19	2.16	2.22	2.27	2.32	2.39	2.42	2.38	2.31	2.27	2.33	2.28	1.57
1991	2.33	2.31	2.29	2.33	2.40	2.47	2.49	2.43					2.30-2.50	1.62
\$ /cwt.														
Sorghum:														
1983	5.26	5.01	4.98	4.93	4.92	4.74	4.85	5.00	5.08	4.94	4.64	4.58	4.89	4.50
1984	4.24	4.05	4.05	4.15	4.16	4.10	4.24	4.46	4.54	4.52	4.04	3.74	4.15	4.32
1985	3.27	3.30	3.47	3.76	3.69	3.55	3.67	3.80	3.99	3.43	3.06	2.66	3.45	4.32
1986	2.36	2.34	2.39	2.41	2.37	2.36	2.44	2.58	2.69	2.79	2.66	2.52	2.45	3.25
1987	2.43	2.48	2.69	2.72	2.75	2.88	2.92	2.94	2.90	4.13	4.56	4.41	3.04	3.11
1988	4.26	4.16	3.99	4.07	4.09	4.05	4.04	4.21	4.03	3.90	4.00	3.81	4.05	3.00
1989	3.80	3.61	3.68	3.54	3.58	3.53	3.69	3.89	4.07	4.29	4.44	4.14	3.75	2.80
1990	3.96	3.55	3.57	3.67	3.72	3.88	3.93	4.05	4.11	3.89	3.95	4.01	3.79	2.66
1991	4.10	3.93	3.94	3.99	4.07	4.20	4.30	4.08					3.93-4.29	2.75
Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. 2/	May	Average 3/	Loan rate
\$ /bu.														
Oats:														
1983	1.51	1.46	1.45	1.55	1.62	1.67	1.73	1.81	1.88	1.81	1.82	1.84	1.62	1.36
1984	1.80	1.68	1.62	1.60	1.69	1.64	1.72	1.74	1.69	1.68	1.68	1.60	1.67	1.31
1985	1.59	1.31	1.16	1.10	1.08	1.17	1.20	1.18	1.16	1.14	1.13	1.21	1.23	1.31
1986	1.10	0.90	0.86	0.99	1.10	1.32	1.44	1.46	1.47	1.45	1.50	1.57	1.21	0.99
1987	1.52	1.29	1.40	1.49	1.60	1.62	1.76	1.79	1.84	1.78	1.82	1.84	1.56	0.94
1988	2.63	2.86	2.54	2.57	2.56	2.41	2.47	2.52	2.46	2.41	2.24	2.13	2.61	0.90
1989	1.82	1.53	1.47	1.38	1.47	1.48	1.53	1.47	1.43	1.39	1.44	1.45	1.49	0.85
1990	1.33	1.15	1.06	1.09	1.14	1.16	1.17	1.13	1.13	1.16	1.16	1.16	1.14	0.81
1991	1.08	1.08	1.09	1.12	1.21	1.24	1.25	1.27	1.44	1.44	1.39		1.20	0.83
All barley:														
1983	2.32	2.20	2.34	2.46	2.53	2.55	2.55	2.55	2.47	2.50	2.54	2.78	2.47	2.16
1984	2.61	2.54	2.26	2.25	2.29	2.25	2.19	2.24	2.21	2.18	2.16	2.22	2.29	2.08
1985	2.14	2.08	1.98	1.88	1.96	2.05	2.07	2.05	1.95	1.88	1.85	1.73	1.98	2.08
1986	1.57	1.67	1.51	1.45	1.58	1.69	1.62	1.60	1.63	1.69	1.69	1.76	1.61	1.56
1987	1.74	1.82	2.00	1.87	1.72	1.88	1.83	1.78	1.72	1.65	1.74	1.77	1.81	1.49
1988	2.45	2.97	2.96	2.94	2.86	2.96	2.73	2.74	2.67	2.74	2.73	2.64	2.79	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	2.05	2.10	2.20	2.24	2.21	2.18	2.09	2.08		2.10	1.32
Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. 2/	May		
\$ /bu.														
Feed barley:														
1983	2.52	2.31	2.23	2.41	2.45	2.51	2.52	2.58	2.47	2.54	2.55	2.86		
1984	2.72	2.60	2.10	2.13	2.19	2.19	2.20	2.22	2.27	2.19	2.16	2.30		
1985	2.26	2.05	1.75	1.74	1.85	1.90	2.03	2.00	1.90	1.83	1.85	1.81		
1986	1.61	1.44	1.21	1.33	1.49	1.62	1.59	1.56	1.61	1.69	1.71	1.84		
1987	1.79	1.67	1.54	1.57	1.66	1.68	1.63	1.65	1.64	1.59	1.73	1.76		
1988	2.07	2.34	2.37	2.39	2.34	2.30	2.27	2.28	2.29	2.35	2.32	2.27		
1989	2.18	1.96	2.06	1.98	1.97	2.08	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	2.01	1.93	1.95	1.99	2.00		
1991	1.90	1.62	1.63	1.84	1.89	1.96	2.06	2.01	2.05	1.99	2.00			
Malting barley:														
1983	2.05	2.06	2.50	2.69	2.72	2.61	2.61	2.50	2.47	2.46	2.54	2.53		
1984	2.52	2.48	2.50	2.52	2.52	2.39	2.18	2.29	2.11	2.17	2.17	2.10		
1985	2.02	2.13	2.49	2.33	2.24	2.32	2.19	2.13	1.99	1.93	1.85	1.66		
1986	1.52	2.07	2.23	1.85	1.83	1.78	1.65	1.70	1.69	1.69	1.65	1.66		
1987	1.68	2.04	2.55	2.39	1.88	2.07	2.01	2.15	1.80	1.69	1.75	1.81		
1988	2.80	3.26	3.38	3.47	3.41	3.34	3.27	3.32	3.22	3.22	3.16	3.04		
1989	2.62	2.68	3.04	2.87	2.89	2.91	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	2.23	2.33	2.40	2.26	2.10		
1991	1.89	2.03	2.76	2.61	2.73	2.57	2.52	2.51	2.51	2.27	2.23			

1/ Prices do not include an allowance for loans outstanding and government purchases. 2/ April 1992 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, 1985-91

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
\$/bu.													
Corn, no. 2 yellow, Central Illinois:													
1985	2.28	2.10	2.32	2.38	2.36	2.33	2.29	2.31	2.42	2.41	1.93	1.52	2.22
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	2.41	2.41	2.42	2.41	2.50	2.57	2.64	2.51					
Corn, no. 2 yellow, Gulf Ports:													
1985	2.59	2.50	2.69	2.75	2.72	2.63	2.56	2.57	2.68	2.63	2.12	1.85	2.52
1986	1.68	1.66	1.83	1.81	1.73	1.70	1.83	1.89	2.06	2.06	1.95	1.81	1.83
1987	1.86	1.99	2.08	2.11	2.20	2.23	2.29	2.28	2.29	3.05	3.22	3.02	2.39
1988	3.08	3.07	2.89	2.99	3.01	2.99	3.02	2.93	2.99	2.87	2.73	2.57	2.93
1989	2.60	2.40	2.75	2.75	2.69	2.70	2.72	3.01	3.08	3.05	2.92	2.79	2.79
1990	2.59	2.55	2.54	2.60	2.68	2.70	2.77	2.80	2.69	2.65	2.67	2.79	2.67
1991	2.76	2.76	2.72	2.71	2.70	2.89	2.96	2.77					
Corn, no. 2 yellow, St. Louis:													
1985	2.38	2.27	2.50	2.59	2.55	2.50	2.42	2.46	2.56	2.52	2.01	1.67	2.37
1986	1.47	1.46	1.68	1.69	1.61	1.57	1.65	1.74	1.93	1.92	1.79	1.65	1.68
1987	1.65	1.78	1.91	1.97	2.05	2.07	2.09	2.10	2.13	2.77	2.96	2.81	2.19
1988	2.82	2.82	2.70	2.76	2.81	2.79	2.82	2.76	2.83	2.58	2.57	2.38	2.72
1989	2.38	2.39	2.48	2.44	2.45	2.48	2.57	2.77	2.86	2.85	2.75	2.59	2.58
1990	2.37	2.32	2.65	2.41	2.46	2.50	2.58	2.61	2.52	2.47	2.45	2.54	2.49
1991	2.44	2.46	2.50	2.53	2.51	2.73	2.78	2.59					
Sorghum, no.2 yellow, Gulf Ports: 1/													
1985	3.70	3.97	4.34	4.52	4.45	4.30	4.28	4.50	4.80	3.90	3.37	2.71	4.07
1986	2.95	3.15	3.26	3.15	3.05	3.09	3.35	3.30	3.51	3.50	3.30	3.04	3.22
1987	3.13	3.35	3.55	3.50	3.65	3.80	3.86	3.70	3.73	5.00	5.33	4.93	3.96
1988	4.99	4.91	4.64	4.93	4.99	4.99	5.02	4.89	5.05	4.75	4.02	4.53	4.81
1989	4.67	4.61	4.69	4.70	4.62	4.59	4.70	4.97	5.04	4.87	4.95	4.73	4.76
1990	4.52	4.43	4.43	4.60	4.76	4.82	4.97	4.94	4.64	4.45	4.54	4.72	4.65
1991	4.81	4.86	5.95	4.90	4.80	5.30	5.39	5.00					
\$/cwt													
Sorghum, no. 2 yellow, Kansas City:													
1985	3.56	3.62	3.75	3.97	3.95	3.80	3.82	4.00	4.25	4.00	3.20	2.71	3.72
1986	2.47	2.60	2.70	2.62	2.50	2.57	2.80	2.85	3.10	3.20	2.80	2.55	2.73
1987	2.64	2.75	2.90	2.95	3.05	3.24	3.27	3.16	3.21	4.58	4.79	4.28	3.40
1988	4.27	4.17	4.00	4.23	4.24	4.26	4.32	4.17	4.29	4.15	3.96	3.92	4.17
1989	4.73	3.91	4.00	3.98	3.91	3.84	4.01	4.32	4.47	4.54	4.48	4.27	4.21
1990	3.89	3.79	3.85	3.97	4.12	4.21	4.35	4.34	4.13	4.02	4.05	4.22	4.08
1991	4.24	4.30	4.27	4.35	4.44	4.62	4.78	4.41					
Sorghum, no. 2 yellow, Texas High Plains: 2/													
1985	4.19	4.38	4.30	4.49	4.47	4.36	4.33	4.48	4.77	4.84	3.93	3.36	4.32
1986	3.35	3.24	2.97	3.06	2.94	2.89	3.06	3.32	3.56	3.60	3.58	3.30	3.24
1987	3.19	3.27	3.27	3.39	3.40	3.53	3.56	3.54	3.55	4.84	5.25	4.96	3.81
1988	4.98	4.95	4.62	4.63	4.75	4.69	4.72	4.63	4.50	4.59	4.46	4.44	4.66
1989	4.39	4.13	4.06	4.03	4.04	4.02	4.10	4.38	4.96	4.94	4.82	4.63	4.38
1990	4.27	4.17	4.28	4.49	4.49	4.57	4.69	4.66	4.66	4.48	4.39	4.57	4.48
1991	4.52	4.56	4.57	4.61	4.76	4.92	5.04	4.93					
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:													
1985	2.46	2.25	2.03	2.15	2.10	2.27	2.29	2.28	2.20	2.34	2.40	2.07	2.24
1986	1.84	1.75	1.61	1.76	1.93	2.02	1.88	1.81	1.92	2.01	2.05	2.12	1.89
1987	2.07	1.93	1.73	1.98	2.08	2.05	2.01	2.02	2.15	2.08	2.11	2.24	2.04
1988	3.61	3.87	4.25	4.40	4.39	4.14	3.82	4.14	4.19	4.33	4.29	3.84	4.11
1989	3.02	3.33	3.57	3.43	3.48	3.18	3.19	3.20	3.02	3.83	2.97	3.17	3.28
1990	2.92	2.35	2.35	2.32	2.30	2.40	2.31	2.33	2.38	2.46	2.48	2.41	2.42
1991	2.26	2.14	2.14	2.21	2.38	2.50	2.54	2.51	2.51	2.50	2.50		
Barley, no. 2 feed, Minneapolis: 3/, 4/													
1985	1.90	1.66	1.46	1.40	1.41	1.49	1.60	1.57	NQ	NQ	NQ	1.31	1.53
1986	1.23	1.16	1.13	1.27	1.50	1.63	1.23	NQ	NQ	1.64	1.76	1.86	1.44
1987	1.73	1.59	1.60	1.76	1.78	1.82	1.74	1.72	1.77	1.88	1.94	1.98	1.78
1988	2.41	2.38	2.08	2.24	2.32	2.27	2.14	2.24	2.33	2.49	2.52	2.41	2.32
1989	2.12	2.11	2.17	2.13	2.16	2.15	2.23	2.28	2.20	2.27	2.27	2.33	2.20
1990	2.39	2.17	1.99	2.01	2.11	2.16	2.07	2.09	2.15	2.14	2.12	2.13	2.13
1991	2.02	1.89	1.92	2.08	2.18	2.23	2.18	2.20	2.28	2.30	2.35		
Oats, no. 2 heavy white, Minneapolis:													
1985	1.59	1.44	1.23	1.24	1.19	1.32	1.39	1.37	1.30	1.27	1.16	1.22	1.31
1986	1.18	1.05	1.12	1.29	1.39	1.72	1.66	1.64	1.56	1.46	1.59	1.83	1.46
1987	1.64	1.61	1.77	1.85	1.97	2.05	2.02	2.10	2.06	1.93	1.94	2.12	1.92
1988	3.26	3.25	3.09	3.07	2.99	2.71	2.74	2.87	2.59	2.49	2.30	2.22	2.80
1989	1.97	1.72	1.59	1.58	1.61	1.68	1.70	1.56	1.48	1.57	1.63	1.68	1.65
1990	1.52	1.37	1.25	1.23	1.29	1.30	1.24	1.22	1.18	1.27	1.32	1.36	1.30
1991	1.25	1.33	1.38	1.35	1.41	1.42	1.49	1.50	1.68	1.66	1.57		

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 months, 1983-91

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. 1/	May	June	July	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	22.30	21.45
1990	23.40	25.90	23.20	21.50	22.00	22.50	21.50	21.00	23.40	23.70	23.80	22.00	22.83
1991	19.80	19.00	16.50	16.60	15.20	16.10	15.60	16.90					
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	21.50	21.00	20.40	21.70	22.59
1985	21.80	25.70	27.80	26.70	25.60	24.40	24.00	22.90	23.00	22.30	28.90	36.70	25.82
1986	42.10	42.70	39.70	38.80	40.80	43.90	41.90	42.20	40.20	38.90	41.40	43.90	41.38
1987	42.10	41.40	38.40	36.70	36.40	37.40	38.20	39.40	38.60	29.50	24.40	26.10	35.72
1988	26.40	26.40	28.40	27.90	28.10	28.70	29.40	30.20	29.30	29.10	29.60	32.00	28.79
1989	30.80	31.10	32.20	32.80	34.20	34.00	32.60	31.10	29.30	27.90	28.50	30.90	31.28
1990	34.50	36.50	37.30	36.50	35.30	34.30	34.00	32.80	32.70	32.00	31.30	28.50	33.81
1991	28.80	29.90	30.50	29.70	29.90	31.00	30.40	31.60					
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	1.64	1.65	1.65	1.63	1.51	1.47	1.43	1.40	1.37	1.36	1.15	1.19	1.45
1988	1.26	1.32	1.36	1.38	1.38	1.35	1.30	1.29	1.28	1.29	1.37	1.43	1.33
1989	1.52	1.63	1.71	1.76	1.67	1.56	1.49	1.48	1.49	1.52	1.55	1.57	1.58
1990	1.54	1.45	1.40	1.29	1.31	1.31	1.27	1.27	1.28	1.28	1.37	1.43	1.35
1991	1.49	1.52	1.57	1.57	1.51	1.44	1.40	1.39					
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	5.50	6.00	5.80	7.40	6.30	5.90	6.10	6.20	6.90	6.02
1989	6.80	7.20	7.90	8.30	8.40	7.10	8.00	7.30	6.20	6.50	5.60	6.40	7.14
1990	6.70	7.30	7.30	7.70	8.00	6.80	8.10	6.70	6.10	6.10	6.90	6.80	7.04
1991	6.70	6.40	6.40	7.20	5.80	5.40	5.40	5.50					
Broiler/feed, U.S. basis 6/:													
1983	2.70	2.50	2.80	2.90	3.10	3.10	3.10	2.70	2.70	2.70	3.00	2.70	2.83
1984	2.80	2.60	2.80	2.70	2.90	2.90	2.80	2.80	3.10	3.20	3.10	3.10	2.90
1985	3.20	3.10	3.50	3.20	3.20	3.10	3.10	3.10	3.40	3.80	4.50	4.60	3.48
1986	3.80	4.40	3.90	3.40	3.60	3.50	3.30	3.20	3.30	3.00	2.90	3.30	3.47
1987	2.90	2.60	2.70	2.50	2.70	2.70	2.80	3.10	3.70	4.10	3.40	3.40	3.05
1988	3.20	2.80	2.70	2.80	2.80	2.80	3.10	3.30	3.70	3.50	3.30	3.00	3.08
1989	3.10	2.70	2.60	2.50	2.70	3.00	3.20	3.00	3.20	3.10	3.30	3.00	2.95
1990	3.10	2.70	2.70	2.70	2.90	2.80	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					
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	5.50	3.40	3.40	3.50	3.50	3.80	4.30	4.50	4.60	4.38
1986	4.70	4.90	4.80	4.00	3.30	3.40	3.40	3.50	3.40	3.30	3.10	3.00	3.73
1987	2.90	2.80	3.10	3.60	2.90	2.60	2.50	2.70	2.80	3.00	3.00	3.10	2.92
1988	3.40	3.60	3.60	2.90	2.70	3.00	3.10	3.40	3.50	3.50	3.30	3.30	3.28
1989	2.90	3.10	3.30	3.20	3.00	2.80	3.00	3.10	3.20	3.20	3.30	3.40	3.13
1990	3.40	3.60	3.60	3.10	2.90	2.90	3.20	3.10	3.30	3.40	3.50	3.60	3.30
1991	3.50	3.20	3.30	3.40	3.10	3.00	3.10	3.10					

1/ April 1992 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.

Sources: Agricultural Prices, Agricultural Statistics Board, USDA.
Livestock, Meat & Wool Market News, Agricultural Marketing Service, USDA.

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

Item	Unit	Sept.-Aug. 1990/91 1/	1991				1992			
			Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
Wholesale, mostly bulk 2/:										
Soybean meal, 44% solvent, Decatur	\$/ton	168.60	191.90	183.00	178.00	170.70	172.70	174.30	174.20	174.80
Soybean meal, high protein, Decatur	"	180.19	204.25	196.30	190.25	183.10	184.00	185.40	185.90	187.20
Cottonseed meal, 41% solvent, Memphis	"	134.57	133.10	131.00	144.40	162.00	156.25	143.10	124.25	121.25
Linseed meal, 34% solvent, Minneapolis	"	129.54	116.25	128.00	133.75	127.80	122.00	124.00	115.00	117.50
Meat and bone meal, Kansas City 3/ Fishmeal, 67% protein, East Coast	"	204.20	232.50	227.00	219.40	208.50	208.90	205.90	215.70	202.25
Corn gluten feed, Illinois pts.	"	311.62	385.00	403.50	406.90	321.50	394.40	390.60	NQ	348.00
Corn gluten meal, 60% protein, Illinois pts.	"	97.94	95.60	104.60	106.10	107.00	107.40	108.50	101.50	95.50
Brewers' dried grains, Milwaukee	"	237.68	269.40	292.50	296.25	287.50	267.50	275.60	272.00	247.50
Distillers' dried grains, Lawrenceburg, Indiana	"	93.46	99.00	107.50	113.10	121.00	121.90	122.50	108.50	87.75
Feather meal, Arkansas pts.	"	116.18	118.00	118.00	122.00	126.60	128.00	127.60	124.10	121.00
Wheat bran, Kansas City	"	194.72	202.50	198.80	205.00	227.50	221.40	209.75	226.00	198.10
Wheat middlings, Kansas City	"	66.78	61.60	72.90	84.40	81.80	76.90	78.40	77.40	60.10
Rice bran, f.o.b. mills, Arkansas	"	66.75	61.60	72.90	84.40	81.80	76.90	78.40	77.40	60.10
Hominy feed, Illinois pts.	"	61.68	49.90	46.60	59.90	75.50	77.50	60.50	52.70	52.60
Alfalfa meal, dehydrated, Kansas City	"	81.37	80.00	77.20	83.60	86.20	88.00	93.60	91.70	92.75
Cane molasses, New Orleans	"	110.26	103.00	103.00	103.00	104.00	104.00	104.00	102.60	101.75
Molasses beet pulp, Los Angeles 4/	"	68.47	65.25	65.00	65.00	67.00	65.00	65.00	65.00	65.00
Animal fat, Kansas City 5/ Urea, 42% nitrogen, Forth Worth	c/lb.	105.99	80.00	80.00	104.25	107.50	113.10	115.00	121.40	123.00
Corn, no. 2 white, Kansas City	\$/ton	10.64	10.50	10.20	9.60	9.60	10.00	10.00	10.00	10.30
	\$/bu.	189.53	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
	\$/bu.	2.98	2.80	2.80	2.73	2.64	2.66	2.73	3.30	3.54
Prices paid, U.S. basis 6/ 7/:										
Soybean meal, 44%	\$/cwt	12.75	---	13.40	---	---	13.00	---	---	13.00
Cottonseed meal, 41%	"	14.33	---	13.40	---	---	14.00	---	---	13.80
Wheat bran	"	10.70	---	10.60	---	---	10.90	---	---	10.80
Wheat middlings	"	9.28	---	9.10	---	---	9.38	---	---	9.15
Broiler grower feed	\$/ton	208.00	---	208.00	---	---	205.00	---	---	212.00
Laying feed	"	195.25	---	199.00	---	---	202.00	---	---	200.00
Turkey grower feed	"	234.00	---	241.00	---	---	239.00	---	---	239.00
Chick starter	"	218.00	---	225.00	---	---	227.00	---	---	228.00
Dairy feed, 16%	"	177.50	---	176.00	---	---	179.00	---	---	179.00
Beef cattle concentrate, 32-36% protein 8/	"	248.50	---	248.00	---	---	250.00	---	---	249.00
Hog concentrate, 38-42% protein 8/	"	297.00	---	312.00	---	---	301.00	---	---	304.00
Stock salt 8/	50 lb	3.57	---	3.58	---	---	3.57	---	---	3.60
Corn products, wholesale 9/:										
Corn meal, yellow, New York	\$/cwt	13.46	13.40	13.46	13.32	13.36	13.42	13.75	13.77	13.51
Grits (brewers'), Chicago	"	9.98	9.90	9.95	9.81	9.85	9.91	10.07	10.06	9.85
Syrup, Midwest/West	c/lb.	11.60	12.86	13.23	13.23	13.23	13.23	13.23	13.23	13.23
Sugar (dextrose), Midwest	"	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50	24.50
High-fructose (dried weight in tank cars), Midwest	"	14.46	17.25	14.70	14.70	14.70	14.70	14.70	14.70	14.70
Corn starch, f.o.b. Midwest	\$/cwt	11.02	11.56	11.35	11.05	10.50	10.38	10.62	10.92	11.22

--- = Not applicable.

NQ = No quotes.

1/ 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. on Dec. 1991, Jan.-Apr. 1992. 4/ Reported as N. California & Central Areas on Nov., Dec. 1991, Jan.-Apr. 1992. 5/ Reported as Central U.S. on Nov., Dec. 1991, Jan.-Apr. 1992. 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, 1989/90 to date 1/

Year and month	Corn			Year and month	Barley		Oats	
	Grain only	Total	Sorghum		Grain only	Total	Grain only	Total
Bushels				Bushels				
1989/90:				1989/90:				
Sept.	113,776,974	116,262,446	33,760,439	June	7,364,654	8,121,974	73,555	134,619
Oct.	174,741,911	176,889,510	33,729,330	July	9,666,205	10,690,552	99,550	154,363
Nov.	293,764,931	295,404,921	22,408,040	Aug.	9,505,299	9,979,181	56,400	181,747
1st Qtr.	582,283,816	588,556,877	89,897,809	1st Qtr.	26,536,158	28,791,707	229,505	470,729
Dec.	258,806,792	260,503,952	19,612,697	Sept.	8,060,139	9,274,483	137,368	245,862
Jan.	239,115,226	241,192,419	33,378,612	Oct.	4,634,063	5,354,195	86,668	183,582
Feb.	183,848,814	186,700,452	28,182,429	Nov.	4,520,961	5,397,789	46,922	103,742
2nd Qtr.	681,770,832	688,396,823	81,173,738	2nd Qtr.	17,215,163	20,026,467	270,958	533,186
Mar.	193,492,324	197,237,589	31,489,112	Dec.	9,910,349	10,568,654	55,999	83,079
Apr.	193,837,384	199,184,789	27,623,273	Jan.	6,037,587	6,879,444	59,397	93,083
May	213,255,189	216,452,118	22,230,949	Feb.	6,786,606	6,980,134	36,769	65,525
3rd Qtr.	600,584,897	612,874,496	81,343,334	3rd Qtr.	22,734,542	24,428,232	152,165	241,687
June	201,188,588	204,549,989	12,501,897	Mar.	566,367	800,696	66,607	102,001
July	148,720,325	152,418,589	14,517,610	Apr.	8,154,546	9,663,627	72,009	110,947
Aug.	153,686,452	158,203,805	23,760,673	May	8,829,623	9,018,289	32,389	63,663
4th Qtr.	503,595,365	515,172,383	50,780,180	4th Qtr.	17,550,536	19,482,612	171,005	276,611
Total	2,368,234,910	2,405,000,579	303,195,061	Total	84,036,399	92,729,018	823,633	1,522,213
1990/91:				1990/91:				
Sept.	104,481,834	107,660,895	18,212,586	June	11,117,511	11,513,895	97,249	1,570,662
Oct.	108,167,144	111,681,798	17,699,762	July	9,710,672	10,087,071	40,805	85,623
Nov.	168,266,952	171,969,136	20,675,429	Aug.	10,034,339	10,539,636	44,949	110,455
1st Qtr.	380,915,930	391,311,829	56,587,777	1st Qtr.	30,862,522	32,140,602	183,003	1,766,740
Dec.	142,014,881	144,624,784	17,623,359	Sept.	1,988,455	3,087,526	126,235	169,601
Jan.	145,445,877	149,685,134	16,949,648	Oct.	14,051,751	14,502,064	60,209	128,694
Feb.	183,222,907	188,180,259	26,673,327	Nov.	9,145,558	9,384,744	44,661	114,089
2nd Qtr.	470,683,665	482,490,177	61,246,334	2nd Qtr.	25,185,764	26,974,334	231,105	412,384
Mar.	188,842,553	192,831,719	29,896,631	Dec.	12,191,302	13,434,045	16,252	72,260
Apr.	144,273,052	146,807,504	29,567,298	Jan.	5,306,015	5,997,143	56,190	123,333
May	120,483,217	125,189,783	16,533,100	Feb.	1,110,671	1,517,807	21,888	87,294
3rd Qtr.	453,598,822	464,829,006	75,997,029	3rd Qtr.	18,607,988	20,948,995	94,330	282,887
June	105,294,851	108,118,121	4,063,117	Mar.	2,768,573	3,627,178	23,680	2,293,261
July	163,730,027	169,515,240	14,562,929	Apr.	438,667	1,083,195	40,473	183,233
Aug.	150,394,445	153,879,355	19,554,532	May	2,764,060	4,068,384	38,181	136,823
4th Qtr.	419,419,323	431,512,716	38,180,578	4th Qtr.	5,971,300	8,778,757	102,334	2,613,317
Total	1,724,617,740	1,770,143,728	232,011,718	Total	80,627,574	88,842,688	610,772	5,075,328
1991/92:				1991/92:				
Sept.	134,579,575	137,427,301	14,660,649	June	695,827	1,328,726	58,438	121,591
Oct.	136,956,495	140,060,285	16,459,810	July	5,394,267	6,485,164	53,051	149,437
Nov.	149,537,460	152,976,206	15,121,241	Aug.	7,408,530	8,107,336	22,994	99,641
1st Qtr.	421,073,530	430,463,792	46,241,700	1st Qtr.	13,498,624	15,921,226	134,483	370,669
Dec.	127,343,892	130,025,266	30,157,833	Sept.	8,692,162	9,507,942	84,580	170,240
Jan.	100,189,249	102,917,540	35,198,141	Oct.	13,090,478	13,776,414	96,669	202,510
Feb.	134,155,436	136,462,241	42,850,982	Nov.	14,911,334	15,448,915	19,701	177,374
2nd Qtr.	361,688,577	369,405,047	108,206,956	2nd Qtr.	36,693,974	38,733,271	200,950	550,124
Mar.	124,300,247	126,979,997	34,571,072	Dec.	7,929,995	8,234,726	20,883	242,721
Apr.				Jan.	11,515,981	11,782,314	109,956	371,445
May				Feb.	5,187,016	5,698,245	48,226	202,737
3rd Qtr.				3rd Qtr.	24,632,992	25,715,285	179,065	816,903
June				Mar.	1,686,720	2,130,608	320,910	651,232
July				Apr.				
Aug.				May				
4th Qtr.				4th Qtr.				
Total				Total				

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, 1989/90 to date 1/

Year and month	Corn		Sorghum	Year and month	Barley		Oats	
	Grain only	Total			Grain only	Total	Grain only	Total
Bushels				Bushels				
1989/90:				1989/90:				
Sept.	38,078	278,865	0	June	1,649,125	1,745,195	3,146,832	3,789,238
Oct.	307,119	553,242	0	July	571,185	661,468	6,440,929	6,730,677
Nov.	297,019	545,010	0	Aug.	1,356,499	1,456,086	7,372,277	7,823,880
1st Qtr.	642,216	1,377,117	0	1st Qtr.	3,576,809	3,862,749	16,960,038	18,343,795
Dec.	98,067	284,277	0	Sept.	263,515	360,996	5,871,691	6,236,194
Jan.	247,828	427,823	0	Oct.	204,334	283,661	4,460,867	4,779,170
Feb.	92,762	248,372	0	Nov.	1,517,596	1,674,049	7,146,334	7,452,067
2nd Qtr.	438,657	960,472	0	2nd Qtr.	1,985,445	2,318,706	17,478,892	18,467,431
Mar.	182,222	320,108	74,979	Dec.	1,078,994	1,235,670	6,581,569	6,720,624
Apr.	162,070	340,157	826	Jan.	823,514	951,248	4,913,766	5,106,965
May	275,032	540,454	42,236	Feb.	1,396,468	1,556,020	4,198,091	4,343,606
3rd Qtr.	619,324	1,200,719	118,041	3rd Qtr.	3,298,976	3,742,938	15,693,426	16,171,195
June	33,491	302,083	23,864	Mar.	1,412,265	1,513,301	3,990,978	4,077,241
July	135,597	409,747	75,398	Apr.	1,334,094	1,417,915	8,952,473	9,062,028
Aug.	32,720	259,866	8,410	May	1,468,016	1,585,615	3,318,168	3,416,949
4th Qtr.	201,808	971,696	107,672	4th Qtr.	4,214,375	4,516,831	16,261,619	16,556,218
Total	1,902,005	4,510,004	225,713	Total	13,075,605	14,441,224	66,393,975	69,538,639
1990/91:				1990/91:				
Sept.	29,118	260,345	5,551	June	603,392	691,725	6,675,002	6,765,949
Oct.	172,220	496,429	0	July	309,116	547,246	5,841,095	5,908,297
Nov.	683,889	920,644	60	Aug.	117,460	357,140	4,998,128	5,090,596
1st Qtr.	885,227	1,677,418	5,611	1st Qtr.	1,029,968	1,596,111	17,514,225	17,764,842
Dec.	90,489	263,269	0	Sept.	117,510	200,053	2,240,242	2,358,192
Jan.	100,811	305,895	0	Oct.	293,888	485,842	4,464,765	4,636,594
Feb.	83,751	264,812	0	Nov.	839,596	1,014,701	4,970,147	5,078,353
2nd Qtr.	275,051	833,976	0	2nd Qtr.	1,250,994	1,700,596	11,675,154	12,073,139
Mar.	80,937	251,187	60,462	Dec.	1,288,510	1,569,406	6,027,832	6,118,041
Apr.	214,595	370,354	167	Jan.	1,194,977	1,306,682	2,543,485	2,642,746
May	487,548	647,502	12	Feb.	1,723,635	1,836,340	9,675,744	9,822,449
3rd Qtr.	783,080	1,269,043	60,641	3rd Qtr.	4,207,122	4,712,428	18,247,061	18,583,236
June	155,046	327,612	0	Mar.	2,248,034	2,423,555	4,618,596	4,763,254
July	423,345	640,317	679	Apr.	3,369,631	3,401,987	3,767,262	3,887,601
Aug.	893,816	1,121,419	1,319	May	1,373,891	1,581,999	7,585,984	7,719,294
4th Qtr.	1,472,207	2,089,348	1,998	4th Qtr.	6,991,556	7,407,541	15,971,842	16,370,149
Total	3,415,565	5,869,785	68,250	Total	13,479,640	15,416,676	63,408,282	64,791,366
1991/92:				1991/92:				
Sept.	1,100,354	1,359,676	0	June	4,575,522	4,778,394	5,759,634	5,844,622
Oct.	2,251,767	2,514,541	0	July	1,743,996	1,919,668	7,175,340	7,240,484
Nov.	3,128,935	3,371,434	0	Aug.	1,120,846	1,279,512	8,780,737	8,871,528
1st Qtr.	6,481,056	7,245,651	0	1st Qtr.	7,440,364	7,977,574	21,715,711	21,956,634
Dec.	1,420,521	1,674,963	118	Sept.	567,099	652,111	4,958,443	5,041,886
Jan.	1,404,407	1,669,121	0	Oct.	1,232,489	1,313,834	9,129,115	9,219,462
Feb.	1,579,933	1,838,699	0	Nov.	1,657,843	1,741,481	3,209,866	3,325,064
2nd Qtr.	4,404,861	5,182,783	118	2nd Qtr.	3,457,431	3,707,426	17,297,424	17,586,412
Mar.	1,962,895	2,244,150	393	Dec.	1,818,152	2,009,904	4,236,846	4,411,775
Apr.				Jan.	2,349,600	2,483,012	5,997,604	6,120,696
May				Feb.	2,286,473	2,460,709	7,414,705	7,525,443
3rd Qtr.				3rd Qtr.	6,454,225	6,953,625	17,649,155	18,057,914
June				Mar.	2,525,374	2,676,242	6,625,725	6,729,380
July				Apr.				
Aug.				May				
4th Qtr.				4th Qtr.				
Total				Total				

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), 1981/82-1991/92

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					3.1

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

Appendix table 18--Barge rates for grain shipments to New Orleans, Louisiana 1/

Crop year	Origin	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
		Dollars/ton												
1984/85	Peoria, IL St Louis, MO	7.77 5.94	8.07 5.92	6.71 5.15	5.79 3.98	7.34 4.36	6.87 4.20	5.73 3.88	5.08 3.79	4.33 3.29	4.76 3.39	4.83 3.34	4.63 3.64	5.99 4.24
1985/86	Peoria, IL St Louis, MO	5.26 4.32	7.93 6.42	6.48 4.80	9.08 5.35	7.22 4.39	5.64 3.87	4.28 3.18	4.13 3.14	3.90 2.97	3.70 2.99	3.70 2.96	6.21 4.62	5.63 4.08
1986/87	Peoria, IL St Louis, MO	8.37 6.52	10.54 7.52	6.64 5.06	5.16 3.62	4.95 3.28	5.23 3.52	6.96 5.27	5.88 4.54	5.44 3.77	6.16 4.30	6.15 4.37	6.46 4.99	6.50 4.73
1987/88	Peoria, IL St Louis, MO	8.66 6.58	9.04 6.97	7.38 5.73	5.68 4.29	7.32 4.39	6.89 4.59	8.16 6.13	7.25 5.47	6.19 4.65	9.86 7.56	9.79 6.81	7.61 6.46	7.82 5.80
1988/89	Peoria, IL St Louis, MO	9.80 7.91	10.32 8.35	7.88 5.94	8.81 6.11	7.32 5.19	7.26 5.31	7.08 5.40	5.85 4.18	5.34 3.72	6.13 4.44	4.92 3.68	5.13 3.92	7.15 5.35
1989/90	Peoria, IL St Louis, MO	5.89 4.64	10.49 7.90	10.87 6.84	12.15 7.05	9.13 5.23	7.32 5.07	6.43 4.92	7.70 5.64	6.43 4.82	5.47 3.99	4.56 3.22	5.40 3.96	7.65 5.27
1990/91	Peoria, IL St Louis, MO	6.33 4.76	7.38 5.57	7.16 5.62	5.97 4.21	7.46 4.89	6.45 4.20	5.09 3.91	5.28 3.88	4.85 3.44	5.62 4.11	6.65 4.90	7.98 6.24	6.35 4.65
1991/92	Peoria, IL St Louis, MO	10.87 8.22	10.67 8.43	6.86 5.09	6.13 4.39	5.57 3.72	6.31 4.52	6.67 5.07	5.76 4.23					7.35 5.46

1/ Assumes all traffic on the Illinois River originates at Peoria.

Appendix table 19--Weekly average of rail car loadings of grain and soybeans, 1979/80-1991/92

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
Carloads													
1979/80	28,576	32,118	32,558	30,500	30,504	31,025	30,170	26,546	23,606	28,333	32,584	32,921	29,953
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	31,704	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	20,840	24,527	25,552	27,573	25,767
1991/92	27,454	30,136	27,324	28,778	28,994	29,915	30,059	26,586					28,656

Source: Association of American Railroads.

Appendix table 20--Rail freight rate index for grain, crop years 1979/80-1991/92

Year	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Average
December 1984=100													
1979/80	64.2	69.5	69.6	70.2	70.2	71.4	70.5	72.7	72.8	73.3	76.6	76.9	71.5
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	111.3	111.3	110.2	110.5					111.0

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

Appendix table 21--Hay (all): Acreage, supply, and disappearance, 1985/86-1992/93

Item	Unit	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92	1992/93
Acreage harvested	Mil. acres	60.5	62.3	60.1	65.1	63.3	61.4	62.6	60.7
Yield per acre	Tons	2.46	2.49	2.45	1.94	2.30	2.39	2.45	2.39
Carryover (May 1)	Mil. tons	26.8	26.7	32.3	27.1	17.5	27.1	27.1	28.6
Production	"	148.7	155.4	147.5	126.0	145.5	146.8	153.5	145.0
Supply	"	175.5	182.1	179.8	153.1	163.0	173.9	180.6	173.6
Disappearance	"	148.8	149.9	152.7	135.6	135.9	146.8	152.0	NA
Roughage-consuming animal units (RCAU's)	Mil. units	80.5	78.3	76.3	75.5	75.5	75.5	76.8	NA
Supply per RCAU	Tons	2.18	2.33	2.36	2.03	2.16	2.30	2.35	NA
Disappearance per RCAU	"	1.85	1.91	2.00	1.80	1.80	1.94	1.98	NA

NA = Not available.

Appendix table 22--Hay: Average prices received by farmers, United States, by months, 1983/84-1991/92 1/

Year	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. 2/	Average 3/ 4/
\$/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	92.10	86.60
1991/92	88.50	79.40	74.50	74.60	72.00	71.80	72.80	72.90	74.20	76.10	73.70	74.70	75.30
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	60.20	65.10
1991/92	60.60	57.40	55.30	59.90	56.60	58.40	59.40	57.30	55.70	57.80	58.60	64.30	61.80
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	87.30	80.60
1991/92	83.70	74.50	70.20	71.50	68.10	68.90	69.10	68.40	69.00	70.60	70.10	73.00	71.00

1/ Revised prices reported for mid-month. 2/ April 1992 data are preliminary. 3/ U.S. season average prices weighted by monthly marketings. 4/ Marketing year average is preliminary for 1991.

Source: Agricultural Prices, Agricultural Statistics Board, USDA.

Appendix table 23--Processed feeds: Quantity fed, 1983-91 1/ 2/

	1983	1984	1985	1986	1987	1988	1989	1990	1991 3/
----- 1,000 metric tons -----									
High protein:									
Oilseed meal--									
Soybean 4/	15,980	17,672	17,318	18,495	19,317	17,833	20,197	20,785	20,865
Cottonseed	1,022	1,595	1,379	1,026	1,442	1,481	1,239	1,473	1,600
Linseed	113	109	100	115	127	93	126	113	132
Peanut	68	112	159	103	109	147	112	99	153
Sunflower	240	307	313	269	381	293	271	308	422
Canola	80	139	120	204	219	322	316	353	525
Total	17,503	19,934	19,389	20,212	21,595	20,169	22,261	23,131	23,697
Animal proteins--									
Tankage and meat meal	2,102	2,523	2,540	2,395	2,457	2,328	2,320	2,292	2,350
Fishmeal and solubles	453	589	464	471	353	265	324	243	265
Milk products	368	386	374	398	411	405	419	405	400
Total	2,923	3,498	3,377	3,265	3,221	2,998	3,063	2,940	3,015
Grain protein feeds--									
Gluten feed and meal	1,281	1,876	1,055	1,165	1,484	1,289	218	164	150
Brewers' dried grains	135	142	135	146	120	114	125	NA	NA
Distillers' dried grains	564	807	873	805	1,035	830	850	NA	NA
Total	1,980	2,825	2,063	2,116	2,639	2,233	1,193	NA	NA
Other:									
Wheat millfeeds	5,078	5,084	5,278	5,714	5,652	5,717	5,617	5,989	6,100
Rice millfeeds	508	503	554	672	608	678	611	612	606
Dried and molasses beetpulp	536	728	701	645	699	661	758	1,051	820
Alfalfa meal	898	808	777	589	554	365	300	333	275
Fats and oils	670	672	765	832	826	944	972	998	885
Molasses, inedible	2,070	2,407	1,887	1,771	1,598	1,593	1,988	2,160	2,100
Miscellaneous byproduct feeds 5/	704	775	870	978	1,034	1,186	1,342	1,562	1,590
Total	10,464	10,977	10,832	11,201	10,971	11,144	11,588	12,705	12,376
Grand total	32,870	37,234	35,661	36,794	38,426	36,544	38,105	NA	NA

NA = Not available.

1/ Year beginning October. 2/ Adjusted for stocks, productions, foreign trade, and nonfeed uses where applicable. 3/ Forecast.

4/ Includes use in edible soy products and shipments to U.S. territories. 5/ Allowance for hominy feed, oat millfeeds, and screenings.

Do you know the truth about Americans and farming?



Which of the following statements are true?

True False

- Farming is the main activity in rural America.*
- Most of our food comes from small family farms where the farmer is having a tough time making a decent living.*
- America is losing the family farm.*
- Most farmers today are either big corporations controlled by major companies, or poor and fighting to survive.*

If you answered "true" to any of these questions, you need to see **American Harvest**, ERS's latest video, because farming in America is **not** what you think it is.

American Harvest investigates farms (there is no such thing as a typical farm), farming and rural America (farming is not the main activity in rural areas), and the farm family (very much in the mainstream of American life).

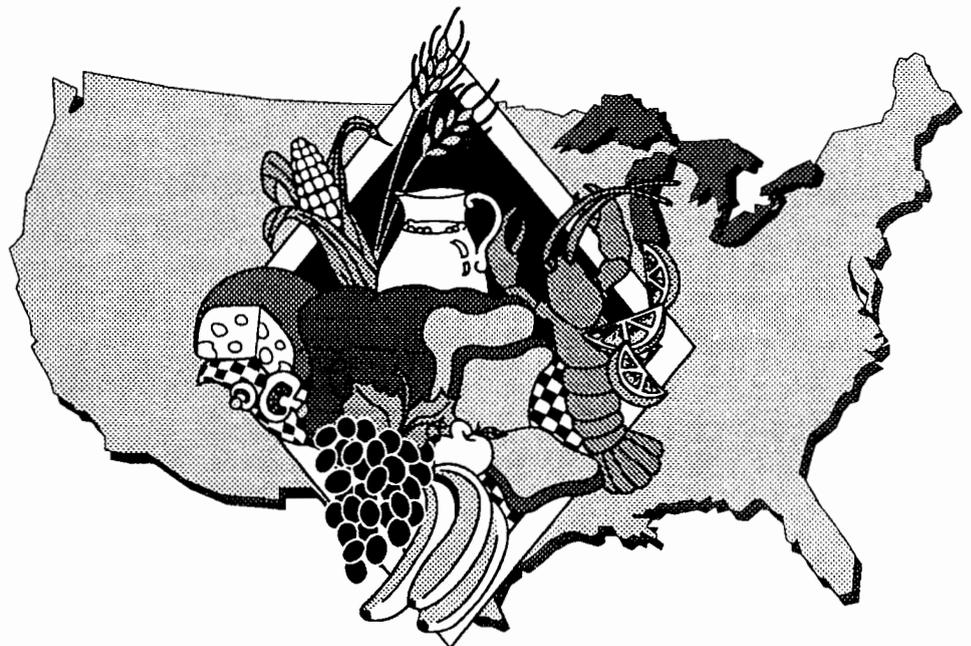
Meet the folks who own a small, "lifestyle" farm in Virginia, a soybean/hog farmer in Illinois, and a man who grows almonds, grapes, kiwis, and a whole lot more in California. Come across America and understand the true nature of farming and the life of those who reap the **American Harvest**.

American Harvest.

Running time, 30 minutes.
Order # VT 007. \$15.00

Order your copy today!

Call the ERS-NASS
order desk, toll-free,
1-800-999-6779, or write
ERS-NASS, P.O. Box 1608,
Rockville, MD, 20849-1608.



United States

Department of Agriculture

1301 New York Avenue, N.W.
Washington, D.C. 20005-4789

OFFICIAL BUSINESS

Penalty for Private Use, \$300

Moving? To change your address, send this sheet with label intact, showing new address to EMS Information, Rm. 228, 1301 New York Ave., N.W. Washington, D.C. 20005-4788.

FIRST CLASS
POSTAGE & FEES PAID
USDA
PERMIT NO. G-145

00000735
Albert R. Mann Library
Acquisitions Division
Ithaca, NY 14853