

FEED OUTLOOK

United States Department of Agriculture



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Economic Research Service

Approved by the World Agricultural Outlook Board

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HIGHLIGHTS

- o 1999 Corn Production Lowered from Last Month, Prices Strengthened
- o Sorghum and Oats Production Estimates Raised From Last Month
- o Record Hay Production To Increase Supplies Per RCAU
- o Forecast World 1999/2000 Coarse Grain Stocks Decline from Year Earlier

FEED GRAIN SUPPLY LARGEST SINCE 1987/1988

U.S. feed grain production in 1999 is forecast at 266 million metric tons, down about 2 million from a month ago and down 5 million from 1998. This reflects adjustments for each of the feed grains. Feed grain supply in 1999/2000 is forecast at 318.5 million tons, down 1 percent from last month, but 6.1 million tons less than 1998/99. Forecast beginning stocks are down slightly from last month, but still up 30 percent from the previous year.

Year over year, increases in supply will slightly exceed gains in use in 1999/2000. Total feed grain use is projected at 265 million tons in 1999/2000, up 1 percent from the previous year. Domestic use is projected to increase to a new high of 210 million tons, bettering the record 208 million expected in 1998/99. Feed and residual use in 1999/2000 is expected to total 155.1 million metric tons and account for 59 percent of total use.

When converted to a September-August marketing year, feed and residual use for the four feed grains plus wheat in 1999/2000 is projected to total 163 million tons, down slightly from 1998/99's 164 million. Corn is estimated to account for 87 percent of the feed and residual use in 1999/2000, up from 86 percent in 1998/99.

The projected index of grain consuming animal units (GCAU) for 1999/2000 is down 119,000 units from 1998/99's 88.5 million units. The grain used per GCAU in 1999/2000 would be 1.84 tons, down 1 percent from 1998/99. In the index components, GCAU's for dairy, hogs, and cattle are down and those for poultry are up. A 1 percent increase in beef production forecast for 1999 and 2000 led to an increase in the GCAU index this month.

CORN PRODUCTION FORECAST LOWEST SINCE 1995/96

Corn production in 1999 is forecast at 9,561 million bushels, down 89 million from last month's projection and down 2 percent from 1998. This is the first survey-based forecast of the season and it reflected August 1 conditions. The average corn yield is forecast at 134.7 bushels per acre, compared with last month's trend-adjusted projection of 135.8 bushels and the actual 1998 yield of 134.4 bushels. If realized, this would be the second highest yield ever, trailing the 138.6 bushels per acre in 1994.

Estimated acreage of corn harvested for grain was cut 84,000 acres this month to 70,955 million due to drought conditions several mid-Atlantic States. An additional acreage change was made in Michigan since its crop has advanced rapidly under ideal conditions and farmers expect to harvest a larger percentage of their acreage for grain.

Forecast corn use is the same as last month's forecast and up 40 million bushels from the estimate for 1998/99. With a reduced supply this month and no changes in use, ending stocks were reduced 114 million bushels. Importing countries have purchased corn before prices began rising and causing the forecasted exports for 1998/99 to rise 25 million bushels.

With reduced corn supplies in 1999/2000 and lower ending stocks than projected last month, prices were increased this month. The forecast price for 1999/2000 is \$1.70-\$2.10 per bushel, up from last month's estimate of \$1.65-\$2.05. In 1998/99, the season average price received by farmer is expected to be \$1.95.

SORGHUM CROP TO INCREASE IN 1999/2000

The first survey-based forecast for sorghum indicates production of 588 million bushels in 1999, up 15 million from the previous projection. This is an increase of 13 percent from 1998's 520 million bushels. Plantings rose 300,000 acres from the June estimate as Texas producers planted land abandoned from cotton. The forecast for harvested area was increased about 200,000 acres because of the increase in planted acreage in Texas. Yields in 1999 are forecast at 69.2 bushels per acre, up from the earlier projection of 69 (based on a simple linear trend fit over 1960-98), and up from the 67.3 bushels of 1998. Both planted and harvested acres are up this month.

The increase in sorghum supplies is expected to boost feed and residual use in 1999/2000 by 20 percent from 1998/99. Larger supplies and lower prices than corn will boost food, seed, and industrial uses along with exports.

In the 1998/99 marketing year, prices received by farmers for sorghum have averaged 85 percent of the corn price and have declined in response to anticipated larger crops. Projected prices for 1998/99 are \$1.70 per bushel. The forecast price for sorghum in 1999/2000 is \$1.40-\$1.80, approximately 85 percent of the corn price.

BARLEY PRODUCTION DECLINES

Barley production for 1999 is forecast at 281 million bushels, down 14 million bushels from a month ago and down 19 percent from 1998. Yields are expected to average 58.2 bushels per acre, down 3 percent from last year. Planted area declined about 70,000 acres from earlier estimates to 5,167 million, the lowest since records were first kept in 1926. Acreage was updated due to a reduction in North Dakota. Harvested acres are estimated at 4,834 million, down 59,000 from last month and down 18 percent from 1998.

Total barley use in 1999/2000 is forecast down 4 percent from last month and down 39 million bushels from last year because of a smaller supply and stronger prices. Reductions are in feed and residual, since food, seed, and industrial uses tend to vary with population growth. Final trade numbers for 1998/99 indicated imports of 30 million bushels, the same as last month and exports of 28 million, a 2 million decline. The 1999/2000 barley export forecast was unchanged this month at 30 million bushels because of tight world supplies.

Prices received by farmers for barley in 1999/2000 are expected to average \$1.70-\$2.10 per bushel, vs. the expected \$1.95 in 1998/99. With crop conditions and production down in States that tend to produce malting barley, the spread between malting barley and feed barley is expected to be wider than normal in 1999/2000.

OATS PRODUCTION FORECAST SLIPS

The 1999 oats crop is forecast at 162 million bushels, up 1 million from the July forecast, but down 5 million from 1998. If realized, this would be the third lowest on record, exceeding the 1995 crop by 1 million bushels and the record low in 1996 by 8.9 million. The forecast yield, at 61.6 bushels per acre, is up 1.2 bushels from last year's 60.4 bushels per acre. This would be the third highest yield on record, behind the record 65.4 bushels in 1992 and the 63.6 bushels in 1985. Planted area was raised this month by 40,000 acres because of a revision in plantings in North Dakota. Area harvested and to be harvested for grain is estimated at a record low 2.63 million acres, increased 40,000 acres from the previous month, and 5 percent below 1998. Total supplies of oats are forecast down 2 percent from 1998/99's 349 million.

Total use for 1999/2000 is expected to be down 2 percent from 1998/99's 267 million bushels. Stronger prices than last year are expected to reduce feed and residual use. Final trade numbers for 1998/99 caused nearly a 3-million-bushel increase in oats imports this month from last month's estimate of 105 million, the highest ever. Exports remained at 2 million bushels, the same as last year.

Prices received by farmers in 1999/2000 are expected to average between \$0.90 and \$1.30 per bushel, compared with the \$1.15 expected in 1998/99. The forecast price is slightly below the ratio to the corn price in 1998/99.

ALL HAY PRODUCTION TO INCREASE

All hay production in 1999 is forecast at a record high 161 million tons, up 9 million from 1998, and 5 percent higher than in 1997. The all hay yield is expected to be a record 2.59 tons per acre, up 3 percent from last year. Acreage harvested of all hay was increased this month by 100,000 acres to 62.1 million, 3 percent higher than 1998.

Alfalfa hay production, at 83.2 million tons, increased 1 percent from 1998. The top three alfalfa producing States all increased production: California up 4 percent, South Dakota up 17 percent, and Wisconsin up 7 percent. Northeastern States hard hit by the drought have had reduced yields and production. For example, yields were down 18 percent from last year in both Pennsylvania and New York and yields in Maryland were down 22 percent.

Other hay production is forecast at a record high 77.6 million tons, up 12 percent from last year. Yields are expected to average 2.04 tons per acre. If realized, this would be the first U.S. yield over 2 tons per acre. Harvested area, at 38.1 million acres, is up 5 percent from last year and the largest since 1962. This estimate is up 100,000 acres from last month because of a revision to the North Dakota estimate. In Texas, other hay production is expected to be up 88 percent from the drought-reduced output last year and yields are up 56 percent. Texas is the top other hay producing State.

Roughage consuming animal units (RCAUs) in 1999/2000 are estimated to be down 1 percent from 1998/99. With hay production and beginning stocks up, hay supply per RCAU was 2.52 tons, up from 2.34 tons in 1998/99.

Hay prices have been weaker in 1999/2000, reflecting larger supplies. Prices received by farmers for all hay averaged \$83.90 per ton in May-July 1999, down from \$94 in 1998. Alfalfa hay prices in May-July 1999 averaged \$87.57 per ton, down from \$99 in 1998. Prices received by farmers for hay other than alfalfa and alfalfa mixtures averaged \$67.73 per ton during May-July 1999, down from \$75 in 1998.

U.S. 1998/99 CORN EXPORT FORECAST INCREASED, PROSPECTS FOR 1999/2000 LOWER

The U.S. 1998/99 corn export forecast increased 1 million tons this month to 50 million tons for the October/September international marketing year or 1.95 billion bushels for the September/August U.S. marketing year. This is up from the previous year by almost one third. According to U.S. Export Sales, as of August 5, shipments were up by 33 percent while outstanding sales were 66 percent higher than a year earlier. However, some of the outstanding sales are expected to be shipped during the next marketing year.

Based on the pace of purchases and shipments, import forecasts were raised for Egypt, up 0.6 million to 4.1 million tons; Mexico, up 0.25 million to 5.5 million; and Saudi Arabia, up 0.2 million to 1.5 million. Smaller increases were projected for Costa Rica and Turkey. On the export side, there were small reductions this month in Argentina, Romania, and the EU, which were more than offset by increased exports forecast for China, based on an aggressive recent sales pace, and South Africa, where the production estimate increased. World corn trade in 1998/99 is expected to increase to 66.8 million tons, almost matching 1996/97, before the Asian financial crisis and disease in Taiwan's hogs sharply reduced demand from the Pacific Rim. U.S. market share is up in 1998/99 because of reduced competition from China and Argentina.

Prospects for U.S. corn exports in 1999/2000 are not as bright, with increased competition and a stagnating level of world trade. The U.S. corn export projection was reduced this month by 0.5 million tons to 48.5 million. Outstanding export sales for 1999/2000 are down 4 percent from a year ago. Recently, when prices increased because of hot dry weather in the United States, China sold large quantities of corn increasing forecast exports this month by 1.0 million tons to 3.5 million. Increased exports forecast this month for South Africa were offset by a reduction in Hungary.

Projected global imports for 1999/2000 increased 0.5 million tons this month to 66.3 million. Increased consumption in Egypt boosted import prospects, more than offsetting a small reduction in Brazil's imports caused by improved production prospects.

WORLD 1999/2000 COARSE GRAIN PRODUCTION, CONSUMPTION, AND STOCKS REDUCED

World coarse grain production prospects for 1999/2000 were reduced significantly this month. Dry weather in China cut corn production prospects by 4 million tons, while hot, dry conditions north of the Black Sea dropped coarse grain production prospects in the former Soviet Union. Forecast foreign coarse grain production dropped 10 million tons this month.

The smaller corn crop in China is expected to have relatively little effect on consumption and trade because the crop is still larger than a year earlier and corn supplies will still be abundant. Carryin stocks are large, and domestic consumption growth is expected to be modest, as economic restructuring limits increased demand for meat. China's consumption projection was reduced 3 million tons this month. Because of reduced production and increased exports, China's coarse grain ending stocks are projected down 2.3 million tons this month, but during 1999/2000 stocks are still expected to increase because production is still expected to exceed consumption plus exports.

Hot, dry conditions extended from the North Caucasus in Russia into Ukraine during July, devastating corn and further reducing spring barley prospects. Russia's coarse grain production declined 1.8 million tons to 21.9 million, while Ukraine's dropped 2.8 million to 9.2 million. Production in the former Soviet Union at 39.7 million tons, is almost as bad as last year's disaster of 37.8 million. Because of last year's terrible crop, stocks going into

1999/2000 are at minimal levels. There is not enough foreign exchange to finance a significant increase in imports, so consumption is expected to drop. Former Soviet Union coarse grain consumption was reduced 4.0 million tons this month to 40.7 million, down from 45.3 million in 1998/99 and the lowest in at least four decades.

Barley production in Eastern Europe was also reduced 1.1 million tons this month, lowering exports and consumption forecasts. Although Saudi Arabia's imports were reduced as the government is liquidating stocks, EU barley export prospects increased to a record 9 million tons. EU barley production prospects were reduced this month, and with increased exports, ending stocks are projected down 0.7 million tons to 12.5 million, still quite large by historical standards.

World coarse grain ending stocks for 1999/2000 are forecast at 142 million tons, down from 143 million a year earlier. Stocks as a percent of consumption are now expected to decline slightly from 16.4 percent to 16.2.

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* The next Feed Outlook will be released September 14, 1999. *
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New ERS Report Examines Price Determination for Corn and Wheat

A new ERS report, Price Determination for Corn and Wheat: The Role of Market Factors and Government Programs examines some of the factors that affect U.S. farm-level prices for corn and wheat. Annual price determination models for those crops are developed using a stocks-to-use modeling framework. This formulation is augmented by additional factors that result in yearly shifts of the functional relationship between prices and stocks-to-use measures. The relatively simple structure of the estimated price models and their small data requirements lend themselves to use in price-forecasting applications in conjunction with market analysis of supply and demand conditions.

Questions regarding the report should be directed to the authors: Linwood Hoffman (202) 694-5298 and Paul Westcott (202) 694-5335. The report may viewed and/or downloaded from the following Internet site:
<http://www.econ.ag.gov/epubs/pdf/tb1878/>

Table 1--Feed Grains: Marketing year supply and disappearance 1/

Year/ Qtr.	Beg. stocks	Produc- tion	Im- ports	Supply	FSI	Feed & resid.	Ex- ports	Total disp.	End. stks.	Farm price
CORN ----- Million bushels ----- \$/bu										
1996/97										
Sep-Nov	426	9,233	3	9,662	383	1,890	487	2,759	6,903	2.87
Dec-Feb	6,903	---	2	6,905	394	1,492	525	2,411	4,494	2.66
Mar-May	4,494	---	4	4,498	465	1,103	433	2,001	2,497	2.77
Jun-Aug	2,497	---	4	2,500	450	814	353	1,617	883	2.49
Mkt. yr.	426	9,233	13	9,672	1,692	5,299	1,797	8,789	883	2.71
1997/98										
Sep-Nov	883	9,207	2	10,092	429	2,036	380	2,845	7,247	2.53
Dec-Feb	7,247	---	1	7,248	418	1,510	380	2,308	4,940	2.55
Mar-May	4,940	---	4	4,944	464	1,089	350	1,904	3,040	2.45
Jun-Aug	3,040	---	2	3,042	470	870	394	1,734	1,308	2.12
Mkt. yr.	883	9,207	9	10,099	1,782	5,505	1,504	8,791	1,308	2.43
1998/99										
Sep-Nov	1,308	9,761	4	11,073	444	2,127	450	3,021	8,052	1.91
Dec-Feb	8,052	---	6	8,058	427	1,467	465	2,359	5,698	2.04
Mar-May	5,698	---	8	5,707	489	1,097	505	2,091	3,616	2.04
Mkt. yr.	1,308	9,761	20	11,089	1,845	5,575	1,950	9,370	1,719	1.95
1999/00										
Mkt. yr.	1,719	9,561	10	11,290	1,910	5,575	1,925	9,410	1,880	1.70-2.10
SORGHUM										
1996/97										
Sep-Nov	18	795	0	814	15	276	56	346	467	2.45
Dec-Feb	467	---	0	467	15	119	59	193	274	2.26
Mar-May	274	---	0	274	10	85	61	155	119	2.41
Jun-Aug	119	---	0	119	6	37	29	72	47	2.27
Mkt. yr.	18	795	0	814	45	516	205	766	47	2.34
1997/98										
Sep-Nov	47	634	0	681	18	239	49	307	374	2.26
Dec-Feb	374	---	0	374	18	38	83	139	235	2.24
Mar-May	235	---	0	235	12	71	55	139	96	2.16
Jun-Aug	96	---	0	96	6	17	24	47	49	2.08
Mkt. yr.	47	634	0	681	55	365	212	632	49	2.21
1998/99										
Sep-Nov	49	520	0	569	15	178	41	234	335	1.68
Dec-Feb	335	---	0	335	15	34	64	113	222	1.70
Mar-May	222	---	0	222	10	47	50	106	116	1.72
Mkt. yr.	49	520	0	569	45	270	190	505	64	1.70
1999/00										
Mkt. yr.	64	588	0	652	55	325	200	580	72	1.40-1.80

Table 1--Feed Grains: Marketing year supply and disappearance, (cont.) 1/

Year/ Qtr.	Beg. stocks	Produc- tion	Im- ports	Supply	FSI	Feed & resid.	Ex- ports	Total disp.	End. stks.	Farm price
-----Million bushels-----										
BARLEY										
-----\$/bu-----										
1996/97										
Jun-Aug	100	392	9	501	44	136	7	187	314	3.11
Sep-Nov	314	---	8	322	39	25	12	76	246	2.74
Dec-Feb	246	---	8	254	37	38	7	82	173	2.55
Mar-May	173	---	11	184	53	18	4	75	109	2.33
Mkt. yr.	100	392	37	529	172	217	31	419	109	2.74
1997/98										
Jun-Aug	109	360	12	482	44	87	24	155	327	2.31
Sep-Nov	327	---	7	334	39	12	39	90	244	2.45
Dec-Feb	244	---	8	252	37	29	6	72	180	2.42
Mar-May	180	---	13	193	53	16	5	74	119	2.26
Mkt. yr.	109	360	40	510	172	144	74	390	119	2.38
1998/99										
Jun-Aug	119	352	7	479	44	101	8	153	326	2.02
Sep-Nov	326	---	7	333	39	16	8	63	271	1.97
Dec-Feb	271	---	6	277	37	32	7	76	201	1.90
Mar-May	201	---	9	210	51	13	5	69	141	1.84
Mkt. yr.	119	352	30	501	170	162	28	361	141	1.95
1999/00										
Mkt. yr.	141	281	35	457	172	120	30	322	135	1.70-2.10
OATS										
1996/97										
Jun-Aug	66	153	6	226	24	69	1.0	94	132	2.08
Sep-Nov	132	---	39	171	22	22	0.8	45	126	1.84
Dec-Feb	126	---	28	154	20	37	0.3	58	96	1.79
Mar-May	96	---	24	120	28	25	0.4	53	67	1.88
Mkt. yr.	66	153	97	317	95	153	2.5	250	67	1.96
1997/98										
Jun-Aug	67	167	19	253	24	74	0.4	98	155	1.62
Sep-Nov	155	---	38	193	22	26	0.7	49	144	1.54
Dec-Feb	144	---	26	170	21	38	0.5	59	111	1.59
Mar-May	111	---	15	127	28	24	0.5	53	74	1.60
Mkt. yr.	67	167	98	332	95	161	2.1	258	74	1.60
1998/99										
Jun-Aug	74	167	28	269	24	83	0.5	107	162	1.15
Sep-Nov	162	---	36	198	22	32	0.4	54	143	1.08
Dec-Feb	143	---	22	166	21	32	0.5	53	113	1.20
Mar-May	113	---	22	134	28	25	0.3	53	81	1.23
Mkt. yr.	74	167	108	349	95	171	1.7	267	81	1.15
1999/00										
Mkt. yr.	81	162	100	343	96	165	2.0	263	80	.90-1.30

Totals may not add due to rounding.

1/ Corn and sorghum are on a September 1 to August 31 marketing year.

Barley and oats are on a June 1 to May 31 marketing year.

Table 2--Feed and residual use of wheat and coarse grains

Year Beginning September 1	Corn	Sorg.	Barley	Oats	Feed Grains	Wheat	Total grains	Animal Units	Feed/ animal unit
	----- Million metric tons -----							Mil.	Tons
1996/97									
Sep-Nov	48.0	7.0	0.5	0.4	56.0	-2.1	53.9		
Dec-Feb	37.9	3.0	0.8	0.6	42.4	0.8	43.2		
Mar-May	28.0	2.1	0.4	0.4	31.0	-0.7	30.3		
Jun-Aug	20.7	0.9	1.9	1.1	24.6	9.6	34.2		
Mkt. yr.	134.6	13.1	3.6	2.6	154.0	7.7	161.6	85.3	1.89
% Change	12.6	74.8	-17.9	1.3	14.8	24.8	15.3	0.4	14.8
1997/98									
Sep-Nov	51.7	6.1	0.3	0.5	58.5	-3.1	55.5		
Dec-Feb	38.3	1.0	0.6	0.6	40.6	0.0	40.6		
Mar-May	27.7	1.8	0.3	0.4	30.2	0.3	30.5		
Jun-Aug	22.1	0.4	2.2	1.3	26.0	11.6	37.7		
Mkt. yr.	139.8	9.3	3.4	2.8	155.3	8.9	164.2	87.9	1.87
% Change	3.9	-29.3	-5.4	7.3	0.9	15.5	1.6	3.0	-1.4
1998/99									
Sep-Nov	54.0	4.5	0.3	0.6	59.4	-2.0	57.4		
Dec-Feb	37.3	0.9	0.7	0.5	39.4	0.3	39.7		
Mar-May	27.9	1.2	0.3	0.4	29.7	1.0	30.8		
Mkt. yr.	141.6	6.9	2.6	2.8	153.9	10.2	164.1	88.5	1.85
% Change	1.3	-26.0	-23.4	1.0	-0.9	15.2	-0.0	0.7	-0.7
1999/00									
Mkt. yr.	141.6	8.3	3.0	2.7	155.6	7.5	163.1	88.4	1.84
% Change	0.0	20.4	15.6	-4.8	1.1	-26.8	-0.7	-0.1	-0.5

Table 3--Cash feed grain prices

	Corn, No. 2, Yel, Ctrl. IL 1/	Corn, No. 2, Yel, Gulf ports 1/	Sorghum, No. 2, Yel Texas South Panhandle 1/	Sorghum, No. 2, Yel, Gulf ports 1/	Barley, No. 2, feed, Duluth 2/	Barley, No. 3 or better, Malting, Minn. 2/	Oats, No. 2, Heavy white, Minn. 2/
Mkt. yr.	\$/bu	\$/bu	\$/cwt	\$/cwt	\$/bu	\$/bu	\$/bu
94/95	2.34	2.78	4.75	4.62	2.02	2.75	1.36
95/96	3.91	4.30	7.30	7.19	2.67	3.69	2.28
96/97	2.74	3.07	5.02	5.03	2.32	3.18	2.03
97/98	2.45	2.78	4.72	4.76	1.90	2.50	1.70
Monthly:							
1998:							
Mar	2.59	2.89	4.85	5.00	1.51	NQ	1.65
Apr	2.41	2.71	4.62	4.69	1.42	NQ	1.54
May	2.37	2.69	4.60	4.58	NQ	NQ	1.58
Jun	2.29	2.64	4.65	4.32	NQ	NQ	1.52
1999:							
Mar	2.09	2.45	3.85	4.16	NQ	NQ	1.35
Apr	2.05	2.39	3.78	4.06	NQ	NQ	1.36
May	2.03	2.35	3.67	3.94	NQ	NQ	1.39
Jun	1.99	2.36	3.61	3.86	NQ	NQ	1.34

1/ Marketing year beginning September 1.

2/ Marketing year beginning June 1. NQ = No quote.

Table 4--Selected feed and feed by-product prices

	Soybean meal 44% slv. Decatur, IL 1/	Cotton- seed meal, 41% slv. Memphis 1/	Corn gluten feed, IL pts. 1/	Corn gluten meal, IL pts. 1/	Meat & bone meal, Central U.S. 1/	Dists.' dried grains, Lawrence- burg, IN 1/	Wheat midlgs, Kansas City 1/	Alfalfa farm price 2/
-----\$/ton-----								
Mkt. yr.								
94/95	151.77	112.64	82.77	221.95	170.51	106.70	65.04	92.10
95/96	217.27	186.12	116.47	319.35	222.07	151.37	118.08	87.20
96/97	260.37	191.47	93.05	341.50	272.44	142.87	91.18	101.80
97/98	186.55	150.40	69.65	290.45	192.56	109.76	76.30	107.00
Monthly:								
1998:								
Mar	165.30	128.70	69.30	270.50	171.10	107.80	81.00	102.00
Apr	152.75	116.25	64.00	238.10	161.60	87.00	59.25	105.00
May	150.30	105.00	64.60	236.25	158.10	85.50	55.50	107.00
Jun	157.80	126.00	61.90	225.60	161.80	81.00	57.90	96.50
1999:								
Mar	127.20	106.90	56.00	198.00	124.50	92.00	68.50	82.40
Apr	128.60	110.90	54.25	192.50	128.70	92.00	54.10	85.60
May	127.00	108.75	56.90	201.25	129.60	84.00	41.40	95.70
Jun	131.70	114.50	57.90	209.50	137.10	87.00	45.70	85.00

1/ Marketing year beginning September 1.

2/ Marketing year beginning May 1.

Table 5--Corn: Food, and industrial uses

Year	HFCS	Glucose and dex.	Starch	---Alcohol--- Fuel	Bev. & Mfg	Cereals & other products	Total F&I
-----Million bushels-----							
1996/97							
Sep-Nov	113.2	60.0	55.0	91.9	29.0	33.6	382.6
Dec-Feb	110.7	56.3	55.1	106.2	33.0	33.2	394.4
Mar-May	134.8	64.0	59.5	119.2	34.0	33.9	445.4
Jun-Aug	145.1	65.5	59.1	111.4	34.0	33.9	449.0
Mkt year	503.8	245.8	228.6	428.7	130.0	134.6	1,671.5
1997/98							
Sep-Nov	122.8	63.4	59.6	116.1	33.2	34.0	429.1
Dec-Feb	116.8	56.2	56.7	122.2	32.8	33.6	418.3
Mar-May	139.4	60.7	58.3	118.3	33.5	34.4	444.5
Jun-Aug	153.4	64.7	58.9	124.6	33.5	34.4	469.4
Mkt year	532.3	244.9	233.5	481.1	133.0	136.5	1,761.2
1998/99							
Sep-Nov	127.6	60.5	57.8	132.4	31.1	34.5	443.8
Dec-Feb	120.8	52.0	54.7	132.9	32.5	34.1	427.1
Mar-May	145.4	60.0	57.1	138.8	34.0	34.8	470.1
Mkt year	555.0	235.0	230.0	540.0	127.0	138.2	1,825.2
1999/00							
Mkt year	570.0	240.0	240.0	570.0	129.9	140.0	1,889.9

Table 6--Wholesale corn milling product and by-product prices

	Corn meal, yellow, New York	Brewers' grits, Chicago	Sugar, destrose, Midwest	HFCS, 42% tank cars, Midwest	Corn starch, fob Midwest 4/
	\$/cwt	\$/cwt	cents/lb	cents/lb	\$/cwt
Mkt. yr. 1/					
94/95	13.22	10.67	25.62	12.27	12.43
95/96	17.79	14.21	25.50	13.01	15.98
96/97	16.94	12.85	25.50	13.15	13.83
97/98	15.94	11.85	28.08	7.77	13.55
Monthly					
1998:					
Apr	15.74	11.64	30.65	7.25	13.96
May	15.69	11.59	30.65	7.25	13.57
Jun	15.67	11.57	30.65	7.20	13.39
Jul	15.27	11.27	30.65	7.05	12.88
1999:					
Apr	15.22	11.12	15.75	8.45	11.98
May	15.18	11.08	16.38	8.45	12.07
Jun 2/	15.20	11.10	16.38	8.45	11.92
Jul 3/	14.66	10.56	16.38	8.45	11.83

1/ Marketing year beginning September 1.
2/ Revised. 3/ Preliminary.
4/ Bulk-industrial, unmodified.

Table 7--U.S. imports by country of origin

Country/region	-----1996/97---	-----1997/98-----	1998/99
	Mkt. yr.	Mkt. yr.	Jun-May
OATS		-----Thousand tons-----	
Canada	1,441	1,282	1,142
Finland	99	161	216
Sweden	140	176	443
Total 1/	1,681	1,696	1,856
BARLEY, MALTING			
Canada	608	733	567
Total 1/	608	733	567
BARLEY, OTHER 2/			
Canada	192	112	81
Total 1/	192	143	81

1/ Totals may not add due to rounding.
2/ Mainly consists of barley for feeding, and also includes seed barley.

Source: Bureau of the Census

Table 8--U.S. feed grain exports by selected destinations 1/

Country/region	-----1996/97---		-----1997/98-----		1998/99
	Mkt. yr.	Sep-May	Mkt. yr.	Sep-May	Sep-May
CORN					
Japan	14,821	11,662	14,581	11,098	11,060
Taiwan	5,482	4,311	3,801	3,053	3,072
Former USSR	184	123	23	22	209
South Africa	81	81	0	0	0
Sub-Saharan Africa	272	228	336	315	197
EU	1,704	1,356	147	7	192
Egypt	2,292	1,731	1,808	1,179	2,134
Canada	833	712	1,423	1,069	516
China	53	53	212	53	154
East Europe	385	385	19	19	12
Algeria	869	687	861	637	699
S. Korea	5,369	4,884	3,593	2,279	4,418
Mexico	3,155	2,379	4,116	2,984	4,360
Others	10,081	8,024	7,196	5,396	8,780
Total	45,581	36,615	38,117	28,110	35,803
SORGHUM					
Mexico	2,111	1,854	3,222	2,715	2,346
Japan	2,102	1,744	1,650	1,584	1,123
Others	948	825	463	421	405
Total	5,161	4,423	5,334	4,720	3,873
BARLEY					
	-----1996/97---		-----1997/98-----		1998/99
	Mkt. yr.		Mkt. yr.		Jun-May
Saudi Arabia	88		922		0
Israel	28		0		0
Jordan	50		53		0
Japan	175		290		422
Mexico	182		124		94
Taiwan	35		94		0
Other	220		135		99
Total	670		1,617		615

1/ Totals may not add due to rounding. Source: Bureau of the Census