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FEED OUTLOOK

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HIGHLIGHTS



- o Corn Crop Forecast Virtually Unchanged; Other Feed Grain Adjustments Small
- o Corn Ending Stocks Reduced for 1997/98 and 1998/99
- o Export Forecast for 1998/99 Corn Raised
- o Special Report: China Corn Developments

FEED GRAIN PRODUCTION AND SUPPLY LARGEST SINCE 1994/95

The 1998/99 U.S. production of feed grains is forecast at 271 million metric tons, down slightly from the previous month, but up 2 percent from 1997/98. Despite prospects for a very large corn crop, total feed grain production would only rank as the fourth highest on record because output of the other feed grains remains low historically. Feed grain supply for 1998/99 is forecast at 312 million tons, down 1 percent from last month because of lower-than-expected carryin stocks of corn, but up 6 percent from the year before.

Total feed grain disappearance is projected at 263.2 million tons, up slightly from a month ago as both expected domestic and export use increased. Although domestic use is forecast at another record 215.5 million tons, surpassing last year's all-time high by 2 percent, total use will stay below the record high set in 1994/95 because of relatively weak exports. Feed grain exports are projected at 47.7 million tons, up 5 percent from the depressed pace of 1997/98, due to smaller competitor exports. Global import demand is expected to remain stagnant.

Feed grain prices began a steep descent during the later half of the summer and are likely to stay weak in the months ahead. Carryin stocks of feed grains for 1998/99 are up 41 percent from a year earlier to 38.2 million tons, and stocks are projected to increase by more than 10 million during the year. The projected carryout of 48.6 million tons will be the highest since 63 million in 1992/93.

CORN PRODUCTION FORECAST AT 9,743 MILLION BUSHELS

Based on conditions as of October 1, the corn crop is forecast at 9,743 million bushels, virtually unchanged from the September forecast and the second highest ever after the record 10.1 billion ton crop of 1994. Harvested acres are forecast unchanged from last month at 73.8 million acres, which is nearly identical to 1997.

The average yield is forecast at 132 bushels per acre, unchanged this month and also the second highest ever. The record was 138.6 bushels in 1994. A record average ear count is indicated for the 7 States (Illinois, Indiana, Iowa, Minnesota, Nebraska, Ohio, and Wisconsin) where objective yield data are collected, breaking the previous record set in 1996.

Crop maturity is well ahead of normal, with 95 percent rated mature as of October 4 in the 17 major States, compared with 79 percent last year and the 5-year average of 80 percent. Similarly, harvest is well ahead of normal, with 31 percent of acreage harvested, compared with 14 percent in 1997 and 16 percent for the 5-year average.

CORN ENDING STOCKS FOR 1997/98 AND 1998/99 REDUCED

Corn stocks on September 1, 1998, (the end of the 1997/98 marketing year) were 1,308 million bushels, up 48 percent from a year ago. The stocks were 91 million bushels below the previous forecast. On-farm stocks were 640 million bushels, and those held off-farm were 668 million. The corn stocks were below expectations, however, indicating larger disappearance for the June-August quarter, estimated at 1,735 million bushels.

Most of the higher use was allocated to feed and residual, which were raised about 100 million bushels to 5,654 million for the 1997/98 year, pending the release of final trade data. This is 2 percent greater than the record high of 1994/95. Strong feed use in the summer quarter reflected very low corn prices, large inventories of hogs and broilers, shortages of forage and pasture in the southern third of the country, and feeding cattle to heavy weights.

The projection of corn ending stocks in 1998/99 was lowered 211 million bushels to 1,711 million this month. In addition to the reduction in beginning stocks, higher use for 1998/99 is expected. The forecast of feed and residual use was raised 100 million bushels to 5,850 million, a year-to-year increase of 3 percent. The forecast of corn exports in 1998/99 was also raised 25 million bushels. Nevertheless, corn ending stocks are still expected to be high relative to recent years. If realized, this would be the highest stocks since 2.1 billion in 1992/93.

FOOD, SEED, AND INDUSTRIAL USE OF CORN TO INCREASE 4 PERCENT

Food, seed, and industrial (FSI) use of corn in 1998/99 is expected to total 1,850 million bushels, up 4 percent from 1997/98, the same as last month's forecast. In 1998/99, FSI use may represent 17 percent of total supply, the same as in 1997/98. FSI use in 1998/99 is expected to be up for all categories, led by corn used for ethanol and high fructose corn syrup (HFCS).

Corn used to make ethanol in 1998/99 may total 510 million bushels, up from 481 million bushels in 1997/98. Even with recent declines in ethanol prices, ethanol production has remained relatively strong and new plants have come on stream. Ethanol production in 1998/99 is expected to total 1.4 billion gallons, up from an expected 1.3 billion in 1997/98.

In 1998/99, corn used for HFCS production is expected to increase 3 percent from the 532 million bushels used in 1997/98. With the U.S. economy strong and employment high, consumers are expected to keep consumption of soft drinks and other beverages strong, a major use for HFCS. Corn used to make glucose and dextrose in 1998/99 may increase 4 percent from last year's 245 million bushels. In the 1998/99 corn marketing year, corn used for starch production may be up 3 percent from the same period in 1997/98. The strong economy and paper recycling is expected to keep starch sales strong.

SORGHUM PRODUCTION LOWEST SINCE 1995

The 1998 sorghum crop is forecast at 521 million bushels, down 8 million bushels from September, but 132 million lower than 1997. There was no change in harvested acres this month, forecast at 7.84 million acres, but this is down 17 percent from 1997 and the lowest since 1953. The average sorghum yield is forecast at 66.5 bushels per acre, down 1 bushel from the previous forecast and 3 bushels below 1997.

Stocks of old crop sorghum on September 1, 1998, totaled 49 million bushels. Disappearance for the last quarter (June-August) was just 47 million bushels, down sharply from a year earlier and the lowest in recent memory. The low availability of sorghum for feed supported more feeding of corn and wheat. Total disappearance of sorghum for the 1997/98 marketing year was 652 million bushels, down 122 million from the previous year.

The stocks estimate was still a bit higher than previously expected. Despite the slippage in forecast production, projected ending stocks for 1998/99 were raised 5 million bushels this month to 55 million. There were no changes in projected use. Feed and residual use is projected at 275 million bushels, 112 million less than 1997/98 and the lowest since 1958/59.

BARLEY SUPPLIES AND DISAPPEARANCE TO DECLINE

Total supplies of barley in the 1998/99 marketing year are expected to be down 2 percent from 1997/98's 524 million bushels. Beginning stocks, at 120 million bushels, are up nearly 10 percent from 1997/98. Imports in 1998/99 may be down 13 percent from the 40 million bushels imported in 1997/98. The largest contributor to decreased supplies is a decline in production. In 1998, barley production was estimated at 358 million bushels, down 4 percent from last year's estimate. Average yield per acre, at 59.9 bushels, was up 1.6 bushels from 1997. However, the area harvested for grain was estimated at only 5.98 million acres, 7 percent less than a year ago.

Total barley disappearance in the 1998/99 marketing year is expected to be down 3 percent from the 404 million bushels used in 1997/98. Exports are likely to be down 53 percent in 1998/99 from the 74 million bushels exported in 1997/98. Barley exports in 1997/98 were unusually high as low-priced U.S. barley met little competition from Europe during the first half of the year. Although Canada's exports are expected to fall, exports for the European Union (EU) and Australia will be up significantly in 1998/99. Domestic barley use will likely increase in 1998/99 from the 330 million bushels used in 1997/98, with all of the increased use expected to be in feed and residual.

OATS SUPPLY AND USE DOWN FROM 1997/98

Total supply of oats in 1998/99 is expected to reach 334 million bushels, down 2 percent from 1997/98. Larger carryin stocks in 1998/99 were not enough to offset expected declines in production and imports. Imports are forecast to fall 8 million bushels to 90 million because poor crops will reduce exports from Sweden and Finland. Shipments from Canada should remain large. In 1998/99, oats production is forecast at 169.9 million bushels, 3 percent smaller than the 1997 production, and the third smallest crop since records were first kept in 1866. The forecast yield, at 60.5 bushels per acre, is equal to last year. Area harvested and to be harvested for grain in 1998 is 2.81 million acres, 3 percent below 1997. If realized, this would be the second smallest acreage harvested for grain on record, exceeding only the 1996 harvested acreage.

Total use of oats in 1998/99 is expected to equal 262 million bushels, down from the 267 million bushels used in the 1997/98 marketing year. Food and industrial use in 1998/99 is expected to be about the same as last year. Earlier forecasts for feed and residual use have been lowered because of the smaller crop and reports that some farmers made oat hay rather than harvesting the oats as grain. Feed and residual use of oats in the June-August quarter is estimated up 5 percent from last year even with the slightly smaller crop. Imports are expected to be strong in the first quarter of the oats marketing year, boosting feed and residual use.

HAY SUPPLIES PER RCAU THE LARGEST SINCE 1992/93

All hay production in 1998 is projected to total 152 million tons, down 366,000 from 1997. Alfalfa hay increased 4 percent from 1997, even though acreage was down from the year before. Other hay production was down 5 percent, primarily because of the drought in the Southwest and the Southeast. Most striking was the decline in Texas where hay production was down 36 percent, mostly because of a decline in yields--down 29 percent, and acreage was down 9 percent.

Roughage consuming animal units (RCAU) in 1998/99 are estimated to be down 1 percent from 1997/98. The last time RCAU's were this low was in 1990/91, when cattle inventories were low. Hay supply per RCAU in 1998/99 was 2.31 tons, up from 2.28 tons in 1997/98.

Season average prices for all hay in 1997/98 (May-April) were \$100 per ton, up from \$95.80 in 1996/97 and a record. Prices received by farmers for all hay during May through September 1998 have averaged \$12 per ton below prices in the comparable period in 1997, even with the decline in production. Alfalfa hay prices in May-September 1998 averaged \$95.30 per ton, down from \$111.46 in 1997. Prices received by farmers for hay other than alfalfa and alfalfa mixtures per ton averaged \$75.68 during May-September 1998, down from \$76.56 in 1997.

FEED AND RESIDUAL USE TO INCREASE IN 1998/99

Feed and residual use of the four feed grains plus wheat in 1998/99 is expected to increase 1 percent from the 169 million metric tons used in September 1997-August 1998. Feed and residual use in 1997/98 was up 2 percent from a year earlier. In 1998/99, corn is expected to represent 87 percent of feed and residual use, up from the 85 percent in 1997/98.

The index of grain consuming animal units (GCAU's) for 1998/99 is expected to be nearly the same as 1997/98's 87.8 million units. The grain used per GCAU in 1998/99 is expected to be 1.95 tons, up 2 percent from 1997/98. Declines are expected in numbers of cattle on feed, dairy cattle, and turkeys, but increases in hogs, broilers, and layer numbers are largely offsetting.

Cattle and calves on feed September 1, 1998, were down 1 percent from 1997. Placements and marketings have also been slow relative to some years, and slaughter weights are up. In August 1998, average dressed weight was 739 pounds, up from 721 pounds in 1997. Low prices have encouraged feeders to slow marketings in anticipation of higher prices but heavier cattle require more feed. Therefore, feed use is likely more than suggested by the numbers on feed. With abundant supplies of competing meats, continued marketing of heavy weight cattle is likely to continue in early 1999 and keep feed demand high.

Pork production in 1999 is expected to increase 3 percent from the 18.8 billion pounds likely to be produced in 1998 and up nearly 13 percent from 1997. Hog farmers responding to the

September 1998 survey indicated that they intended to increase the number of sows farrowing in December 1998-February 1999 by 3 percent relative to the prior year. If producers carry through with these reported intentions, feed needs by the pork sector are likely to be stronger in 1998/99.

Broiler and egg production in 1999 are expected to increase from the forecast 1998 levels and continue strong demand for feed grains. Broiler production in 1999 is expected to increase 5 percent from 1998 as producers respond to abundant feed supplies and lower prices. In 1999, turkey producers are expected to hold production unchanged from the 1998 output, in spite of poor returns in the last 2 years. Egg producers in 1999 are expected to produce 5.7 billion dozen eggs, up nearly 2 percent from the 1998 output. The September Chicken and Eggs report shows replacement layers and broiler breeder hens up from a year earlier.

Milk production in 1999 may be up almost 2 percent from the expected 157 billion pounds produced in 1998. Declines in milk cow numbers are projected to slow slightly, while milk per cow rebounds. With increased milk production, feed use by the dairy industry will continue strong.

FEED GRAIN PRICES PROJECTED TO BE LOWEST SINCE 1987/88

There were no changes in USDA farm price forecasts this month, except for a tightening in the price range of oats. However, price forecasts were reduced in September. The season average price of corn received by farmers is forecast at \$1.80-\$2.20 per bushel. The mid-point of this range would be the lowest since \$1.94 in 1987/88. The lowest corn price so far in the 1990's was \$2.07 in 1992/93, a year that featured a record crop, record domestic use, sluggish exports, and very large stocks--somewhat similar to the 1998/99 outlook.

Other feed grain prices are also expected to fall to the lowest average since 1987/88, except for oats. Even with a short crop, the sorghum price will be kept low by the influence of cheap corn, although the price relative to corn will be stronger than a year ago. The sorghum farm price is forecast at \$1.65-\$2.05 per bushel in 1998/99. The all-barley price is forecast at \$1.75-\$2.15 per bushel, but the spread between the feed and malting price is expected to remain large. In 1997/98, the premium for malting over feed barley was 69 cents per bushel, above the longer term average of about 45-55 cents. Feed barley prices reported in August and September have been the lowest since the 1986/87 marketing year.

Oats prices have nearly sunk to \$1.00 per bushel in recent months, reported at \$1.02 in August and \$1.05 in September. The season average price is forecast at \$1.10-\$1.30 per bushel, close to a number of recent years: \$1.22 in 1994/95, \$1.21 in 1991/92, and \$1.14 in 1990/91.

FARMERS FACE DIFFICULT MARKETING DECISIONS

Farmers face complex marketing decisions in 1998/99, with loan deficiency payments (LDP) a popular option in the early stages of the year. Farmers can gain an LDP when the posted county price (which should be in line with the local cash price) falls below the county loan rate. Many farmers are apparently taking the LDP and then putting corn in storage because the current prices are so low. However, storage space is limited in many areas because of large supplies, and if an LDP is taken, then the corn cannot be put under the government loan program.

Another uncertainty is the seasonal price pattern. Corn prices typically reach a bottom around the harvest months of October and November and then strengthen slowly until mid-summer. However, in 1997/98, the normal seasonal pattern was absent. Prices were highest over the first half of the year and then declined in the face of weakening demand and improved new-crop prospects. This year, the futures market would indicate some carry--contract prices in the months ahead high enough over the nearby contract to cover storage costs for many producers. If too many farmers hold corn early in the year, providing some support to price by keeping cash markets relatively tight, then there is the risk that heavier sales later in the year could depress prices unless demand is very strong.

WORLD COARSE GRAIN PRODUCTION EXPECTED TO DECLINE IN 1998/99

World coarse grain production in 1998/99 is expected to decline 5 million tons compared with the previous year, whereas last month it was expected to increase by 6 million. However, global production is still projected to be larger than consumption, and ending stocks are likely to continue to increase, but at a slower pace than a year earlier.

Forecast global coarse grain production for 1998/99 was reduced this month by 11 million tons to 883 million. Forecast production in the former Soviet Union (FSU) dropped 5 million tons as harvest progress reports indicated large barley, oats, and rye areas in some regions would not be harvested, mostly because of drought. The lingering effects of summer drought also caused reductions this month in corn production prospects. Coarse grain production in the FSU is now expected to drop 36 percent. Drought compounded producers problems with deteriorating infrastructure, extreme macroeconomic uncertainty, and farms' financial stress. With sharply lower grain supplies, and reduced animal numbers, coarse grain consumption in the FSU is expected to drop by 8.5 million tons compared with the previous year. Because of foreign exchange constraints and economic turmoil, expected imports of coarse grains were left unchanged this month, despite sharply lower production.

This month, EU production prospects declined 2 million tons as cold wet growing conditions in the north damaged oats and barley, while in Italy and France corn production declined. In Argentina, more favorable prices for oilseeds reduced prospects for corn area, dropping projected coarse grain production 1.6 million tons. India reported coarse grain production was down 1.3 million tons from earlier forecasts, reducing both area and yield.

Despite current low prices for coarse grains, global consumption is expected to decline slightly in 1998/99. This month's forecast is sharply lower, down 9 million tons, with much of the drop in the FSU. Reduced production is expected to lead to lower food use in India. And this month forecast corn consumption in China is down because of slow meat demand (see special section on China).

Slow or declining macroeconomic growth in many parts of the world is expected to offset reduced prices, leaving global consumption stagnant in 1998/99. Slow consumption growth is expected in Africa and the Middle East, and modest growth is forecast for North and South America. In Eastern Asia, China will account for most of the growth in consumption.

World trade in coarse grains is expected to stagnate in 1998/99 because of slow growth or declining consumption in major importers. However, U.S. exports are expected to increase because of reduced competition. Argentina and Eastern Europe are expected to reduce corn exports because of reduced production, while low prices limit the incentives for China to export. U.S. corn exports are forecast at 42 million tons, up 1 million from last month and up 3 million from the year earlier. However, this would still be the fifth lowest in the last 20 years.

CHINA CORN REPORT: VERY LARGE CROP, TRADE PROSPECTS UNCERTAIN

The following material draws from findings of a USDA team that recently visited China, as well as from ongoing research and market analysis.

Crop size: China's 1998 corn crop escaped flood damage and production prospects are excellent. USDA raised its production forecasts from 122 million tons to 124 million tons this month. This would be up substantially from last year's drought-reduced crop that fell to 104 million tons and would rank second only to the record 127 million in 1996. Harvesting should be nearly complete in the North China Plain by now and winding down shortly in the Northeast, the two major production regions.

Corn acreage increased nearly 500,000 hectares, and yields are expected to be up sharply. The heavy flooding that occurred along the Yangzi and Nen rivers was not in important corn growing areas. In fact, abundant moisture this year was very beneficial for corn.

In mid-September, local officials in China were optimistic about the corn crop, assuming there were no early frosts or typhoon damage, and they were reasonably confident that total grain output would equal or exceed last year's level of 493 million tons, even with lower winter wheat and early rice. Although China usually releases a total grain production estimate in December, the estimate for corn and the other individual grains is not available until April or May.

Feed Demand Softens: Feed demand has weakened in 1998. The price of pork, the main meat, has declined sharply. Output of commercial feeds declined through the first three quarters of the year, but is expected to show some recovery toward year end. The softer pace is viewed as somewhat temporary, although the growth rate is not likely to recover to the torrid expansion of earlier years.

A number of factors account for the slowdown. Growth in real per capita income has slowed. Disposable incomes are shrinking because urban households are increasingly having to pay more for rent (which used to be paid by the government-owned enterprise), education, and other expenses. Consumers are purchasing less meat as they become more careful with their food budgets.

Continued large imports of chicken parts into China, along with weaker pork and poultry exports, are also contributing to slowing feed demand. China's exports are less competitive vis-a-vis some other countries whose currencies have devalued, especially poultry exports from Thailand, and import demand has generally weakened due to Asia's economic crisis. In addition, last year's avian flu outbreak has led to problems exporting poultry to Europe.

Grain Policy Reforms Raise Questions: A number of reforms were announced by the government last spring aimed at reducing the heavy financial losses the central government has incurred managing the purchase, storage, and transportation of grains and eliminating costly subsidies. The new policy includes a prohibition on State grain enterprises selling grain below cost. Also, the government wants farmers with fixed quota prices to sell all of their marketable grain to State-owned Grain Bureaus, effectively creating a monopsony buying situation.

As of early October, the government protection price for the 1998 corn crop had not yet been announced. There still seems to be uncertainty about implementation of the new policies at the local level. Although emphasizing that state-owned enterprises should be responsible for

their own profit or loss and they should reduce overstaffing, the reforms seem likely to obscure the role of price signals that local markets provide. This could reverse movement toward a greater market orientation in recent years. However, outside of the grains sector (wheat, rice, corn, and in some provinces, soybeans), the government has continued to allow more liberalization.

Government Retains Tight Control Over Corn Trade: Although international prices for corn are currently below local prices in much of China, import policy remains firm. Corn imports are only allowed under a government quota. This is only provided if the enterprise or firm re-exports the finished product such as starch or other processed products. Use of imported corn for feeding livestock for subsequent meat exports is not covered.

Export decisions are also made by the central government, although implemented by COFCO, a State firm that acts as an agent. Much of the export trade to Russia and North Korea is on a barter basis. There is sometimes confusion in the terminology of what constitutes exports. The Northeast provinces "export" large amounts of corn by sea to provinces in the south of the country, but these would more accurately be known as internal transfers rather than exports to third countries.

Uncertain Outlook for 1998/99 Corn Exports: The near-record crop outlook and lack of growth in domestic demand suggest an increase in the availability of corn for export. At times, the need to free up space for incoming crops has been cited as a reason for exports. As usual, the size of stocks is not public, but they remain large, according to press reports and discussions with government officials.

On the other hand, very low prices on the world market would suggest that China will have difficulty competing because new policies are supposed to prevent selling at price under costs. However, it is conceivable that some old-crop corn from 2 or 3 years ago, procured at much lower prices, could be exported if still in stocks and if storage costs were not included.

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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
-----Million bushels-----										
CORN										
1995/96										
Sep-Nov	1,558	7,374	4	8,935	413	1,756	660	2,830	6,106	2.80
Dec-Feb	6,106	---	5	6,111	401	1,348	562	2,311	3,800	3.15
Mar-May	3,800	---	5	3,805	429	1,048	610	2,087	1,718	3.76
Jun-Aug	1,718	---	3	1,721	369	530	396	1,295	426	4.31
Mkt. yr.	1,558	7,374	16	8,948	1,612	4,682	2,228	8,522	426	3.24
1996/97										
Sep-Nov	426	9,293	3	9,723	383	1,951	487	2,820	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	1,105	431	2,001	2,497	2.77
Jun-Aug	2,497	---	4	2,500	450	814	353	1,617	883	2.49
Mkt. yr.	426	9,293	13	9,733	1,692	5,362	1,795	8,849	883	2.71
1997/98										
Sep-Nov	883	9,366	2	10,251	429	2,195	380	3,004	7,247	2.52
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	---	3	3,043	470	861	405	1,735	1,308	2.11
Mkt. yr.	883	9,366	10	10,259	1,782	5,654	1,515	8,951	1,308	2.45
1998/99										
Mkt. yr.	1,308	9,743	10	11,061	1,850	5,850	1,650	9,350	1,711	1.80-2.20
SORGHUM										
1995/96										
Sep-Nov	72	460	0	532	5	172	54	231	301	2.88
Dec-Feb	301	---	0	301	6	66	67	139	163	3.25
Mar-May	163	---	0	163	5	51	36	92	70	3.94
Jun-Aug	70	---	0	70	3	8	41	52	18	3.63
Mkt. yr.	72	460	0	532	19	297	198	514	18	3.19
1996/97										
Sep-Nov	18	803	0	821	15	283	56	354	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	803	0	821	45	524	205	774	47	2.34
1997/98										
Sep-Nov	47	653	0	701	18	259	49	327	374	2.23
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	19	22	47	49	2.04
Mkt. yr.	47	653	0	701	55	387	210	652	49	2.20
1998/99										
Mkt. yr.	49	521	0	570	45	275	195	515	55	1.65-2.05

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										
1995/96										
Jun-Aug	113	360	12	484	44	111	17	172	313	2.53
Sep-Nov	313	---	8	321	39	28	11	78	243	2.80
Dec-Feb	243	---	8	251	37	17	20	73	178	3.18
Mar-May	178	---	12	190	52	23	16	91	100	3.29
Mkt. yr.	113	360	41	513	172	179	62	413	100	2.89
1996/97										
Jun-Aug	100	396	9	504	44	137	7	188	316	3.11
Sep-Nov	316	---	8	324	39	25	12	76	248	2.74
Dec-Feb	248	---	8	256	37	40	7	84	173	2.55
Mar-May	173	---	11	184	53	18	4	75	109	2.33
Mkt. yr.	100	396	37	532	172	220	31	423	109	2.74
1997/98										
Jun-Aug	109	374	12	496	44	100	24	168	328	2.32
Sep-Nov	328	---	7	335	39	12	39	90	245	2.47
Dec-Feb	245	---	8	253	37	31	6	74	180	2.40
Mar-May	180	---	13	192	53	14	5	72	120	2.24
Mkt. yr.	109	374	40	524	172	158	74	404	120	2.38
1998/99										
Jun-Aug	120	358	9	487	44	106	10	160	327	2.02
Mkt. yr.	120	358	35	513	172	185	35	392	121	1.75-2.15
OATS										
1995/96										
Jun-Aug	101	162	28	290	23	86	0.4	110	180	1.48
Sep-Nov	180	---	26	206	22	31	0.5	53	153	1.52
Dec-Feb	153	---	18	171	20	38	0.3	58	113	1.94
Mar-May	113	---	9	122	27	28	0.8	56	66	2.21
Mkt. yr.	101	162	81	343	92	183	2.1	277	66	1.67
1996/97										
Jun-Aug	66	155	6	228	24	71	1.0	96	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	29	24	0.4	53	67	1.88
Mkt. yr.	66	155	97	319	95	155	2.5	252	67	1.96
1997/98										
Jun-Aug	67	176	19	262	24	81	0.4	105	157	1.65
Sep-Nov	157	---	38	195	22	27	0.7	50	144	1.54
Dec-Feb	144	---	26	170	20	38	0.5	59	111	1.59
Mar-May	111	---	15	127	29	24	0.5	53	74	1.59
Mkt. yr.	67	176	98	341	95	170	2.1	267	74	1.60
1998/99										
Jun-Aug	74	170	27	271	24	85	0.5	109	162	1.15
Mkt. yr.	74	170	90	334	95	165	2.0	262	72	1.10-1.30

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 -----
1995/96									
Sep-Nov	44.6	4.4	0.6	0.5	50.1	-2.7	47.4		
Dec-Feb	34.2	1.7	0.4	0.6	36.9	0.4	37.2		
Mar-May	26.6	1.3	0.5	0.4	28.8	-1.8	27.0		
Jun-Aug	13.5	0.2	3.0	1.0	17.7	10.5	28.2		
Mkt. yr.	118.9	7.5	4.5	2.6	133.5	6.3	139.9	84.9	1.65
% Change	-15.2	-22.0	-6.3	-21.7	-15.5	-14.6	-15.5	0.7	-16.0
1996/97									
Sep-Nov	49.5	7.2	0.5	0.4	57.7	-2.1	55.6		
Dec-Feb	37.9	3.0	0.9	0.6	42.4	0.8	43.2		
Mar-May	28.1	2.1	0.4	0.4	31.0	-0.7	30.4		
Jun-Aug	20.7	0.9	2.2	1.2	25.0	10.8	35.8		
Mkt. yr.	136.2	13.3	4.0	2.7	156.1	8.9	165.0	85.4	1.93
% Change	14.5	76.4	-10.8	4.0	17.0	39.7	18.0	0.6	17.4
1997/98									
Sep-Nov	55.8	6.6	0.3	0.5	63.1	-3.1	60.0		
Dec-Feb	38.3	1.0	0.7	0.6	40.6	0.0	40.6		
Mar-May	27.7	1.8	0.3	0.4	30.2	0.3	30.4		
Jun-Aug	21.9	0.5	2.3	1.3	26.0	11.7	37.6		
Mkt. yr.	143.6	9.8	3.6	2.8	159.8	8.9	168.7	87.8	1.92
% Change	5.4	-26.1	-10.5	4.7	2.3	-0.1	2.2	2.8	-0.6
1998/99									
Mkt. yr.	148.6	7.0	4.4	2.7	162.7	8.1	170.7	87.6	1.95
% Change	3.5	-28.9	24.3	-5.8	1.8	-9.1	1.2	-0.1	1.4

Table 3--Grain shipments and rates

Year beginning September 1	1995/96 Sept-Aug	-----1996/97----- Sept-Aug	Aug	-----1997/98-- Sept-Aug	Aug
Barge shipments 1/ (Million ton/month)	4/ 3.7	5/ 2.8	2.9	6/ 1.4	NA
Barge rate index 2/ (Dec 1990 = 100)	151.8	108.7	93.9	7/ 106.4	8/
Railcar loadings 3/ (1,000 cars/week)	27.1	23.3	22.9	22.4	22.3
Rail rate index 2/ (Dec 1984 = 100)	117.3	119.7	8/	8/	8/

1/ Illinois & Mississippi rivers. Includes soybeans and all grains.

Source: U.S. Army Corps of Engineers

2/ Source: Bureau of Labor Statistics

3/ Includes soybeans and all grains.

Source: Agricultural Marketing Service, USDA.

4/ 11-months average. 5/ 8-months average. 6/ 5-months average.

7/ 10-months average. NA = Not Available

8/ Discontinued data series and soon to be excluded from this table.

Table 4--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/
	\$/bu	\$/bu	\$/cwt	\$/cwt	\$/bu	\$/bu	\$/bu
Mkt. yr.							
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:							
1997:							
May	2.74	3.01	5.04	5.17	2.45	NQ	1.81
Jun	2.59	2.86	4.80	4.75	2.31	2.62	1.89
Jul	2.44	2.69	4.70	4.36	2.40	1.74	1.76
Aug	2.60	2.86	4.97	4.71	2.10	2.66	1.80
1998:							
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
Jul	2.16	2.55	4.53	4.33	1.23	NQ	1.42
Aug	1.86	2.24	4.15	4.13	NQ	2.30	1.21

1/ Marketing year beginning September 1.

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

Table 5--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/ 3/
	\$/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:								
1997:								
May	296.00	193.75	83.60	355.75	277.60	128.50	82.90	125.30
Jun	275.90	190.30	72.25	349.40	279.30	126.90	64.80	114.00
Jul	261.49	170.75	70.40	337.00	271.41	125.00	61.50	107.00
Aug	261.60	176.25	75.50	345.60	261.00	NQ	69.80	105.00
1998:								
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
Jul	173.30	145.62	58.75	252.50	171.25	86.00	67.84	93.40
Aug	135.70	130.30	57.50	245.00	156.80	NQ	53.40	90.50

1/ Marketing year beginning September 1. NQ = No quote.

2/ Marketing year beginning May 1.

3/ Includes monthly & marketing year revisions from 1994/95.

Table 6--Corn: Food, and industrial uses

Year	HFCS	Glucose and dex.	Starch	---Alcohol--- Fuel	Bev. & Mfg	Cereals & other products	Total F&I
Million bushels							
1995/96							
Sep-Nov	110.1	60.7	55.8	121.2	32.3	33.2	413.2
Dec-Feb	105.1	52.9	51.5	120.8	37.5	32.8	400.6
Mar-May	130.8	60.7	55.0	92.2	39.6	33.5	411.8
Jun-Aug	136.2	62.8	57.0	61.5	15.6	33.5	366.6
Mkt year	482.2	237.1	219.3	395.7	125.0	133.0	1,592.2
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							
Mkt year	550.0	255.0	240.0	510.0	135.0	139.0	1,829.0

Table 7--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 3/
	\$/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 2/	15.94	11.85	28.08	7.77	13.55
Monthly					
1997:					
Jun	16.38	12.28	25.50	13.15	13.37
Jul	16.20	12.10	25.50	13.15	13.37
Aug	16.50	12.44	25.50	13.15	13.05
Sep	16.59	12.49	25.50	NA	13.45
1998:					
Jun	15.67	11.57	30.65	7.20	13.39
Jul	15.27	11.27	30.65	7.05	12.88
Aug	14.62	10.52	30.65	7.05	12.67
Sep 2/	14.58	10.48	30.65	7.14	11.92

1/ Marketing year beginning September 1. NA = Not available.

2/ Preliminary.

3/ Bulk-industrial, unmodified.

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

Country/region	-----1995/96-----		-----1996/97-----		1997/98
	Mkt. yr.	Sep-July	Mkt. yr.	Sep-July	Sep-July
-----Thousand tons-----					
CORN					
Japan	15,303	14,178	14,821	13,247	13,493
Taiwan	5,938	5,587	5,482	5,022	3,336
Former USSR	58	50	184	148	23
South Africa	347	347	81	81	0
Sub-Saharan Africa	321	319	272	261	324
EU	2,842	2,835	1,704	1,678	31
Egypt	2,167	2,137	2,292	2,065	1,544
Canada	808	711	833	815	1,346
China	2,207	2,207	53	53	158
East Europe	188	188	385	385	19
Algeria	522	522	869	765	788
S. Korea	8,285	7,855	5,369	5,106	3,094
Mexico	6,453	6,156	3,155	2,975	3,695
Others	11,054	10,619	10,081	9,360	6,783
Total	56,494	53,709	45,581	41,961	34,633
SORGHUM					
Mexico	1,759	1,578	2,111	2,000	3,074
Japan	1,617	1,478	2,102	1,879	1,618
Others	1,591	1,505	948	894	444
Total	4,968	4,561	5,161	4,774	5,136
		-----1996/97---	-----1997/98-----		1998/99
	Mkt. yr.	Jun-July	Mkt. yr.	Jun-July	Jun-July
BARLEY					
Saudi Arabia 2/	88	0	922	200	0
Israel	28	7	0	0	0
Jordan	50	0	53	0	0
Japan	175	21	290	21	52
Mexico	182	46	124	30	17
Taiwan	35	0	94	8	0
Other	220	17	135	55	5
Total	779	91	1,617	313	74

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

2/ For 1997/98, includes unidentified country, until data is revised.

Table 9--U.S. imports by country of origin

Country/region	-----1996/97--- <th colspan="2">-----1997/98----- <th>1998/99</th> </th>		-----1997/98----- <th>1998/99</th>		1998/99
	Mkt. yr.	Jun-July	Mkt. yr.	Jun-July	Jun-July
-----Thousand tons-----					
OATS					
Canada	1,440	70	1,282	182	61
Finland	99	0	161	25	54
Sweden	140	0	176	22	133
Total 1/	1,680	70	1,696	229	248
BARLEY, MALTING					
Canada	608	115	733	158	93
Total 1/	609	115	733	158	93
BARLEY, OTHER 2/					
Canada	191	37	112	39	47
Total 1/	192	37	143	39	47

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