## HIGHLIGHTS

o Corn Production Forecast Up 47 Million Bushels, Sorghum Drops Slightly
o Projection of 1997/98 Corn Ending Stocks Raised
o Corn Export Forecast Reduced 100 Million Bushels, Barley Exports Up Again
o Special Update on Rail Congestion Problems

## FEED GRAIN OUTLOOK: LOWER EXPORT PROSPECTS BOOST CARRYOUT STOCKS

U.S. feed grain supplies are forecast at 295 million metric tons for 1997/98, up 1 million from last month due to higher corn production. Total use of feed grains is projected at 267.3 million tons, down 2.4 million tons from a month ago primarily because of lower corn exports. Expectations for domestic use are largely unchanged except for a small decline in barley feed and residual use. Ending stocks of feed grains are projected at 27.8 million tons, an increase of 3.5 million tons, and up slightly from the carryin level.

Although U.S. stocks of feed grains will remain relatively low in $1997 / 98$, they are expected to increase slightly from the previous year. With most of the harvest complete, supply side concerns are largely limited to shipping delays stemming from rail transportation congestion, along with storage problems in some areas. Overall demand prospects are strong, particularly for domestic feeding and industrial use. On the international side, U.S. corn is continuing to face stronger than expected export competition from China. In addition, large exportable supplies of feed quality wheat from Europe are also eroding U.S. prospects, and there are indications that growing economic problems will reduce Southeast Asia's corn import demand from earlier expectations.

## CORN CROP FORECAST RAISED TO 9,359 MILLION BUSHELS

U.S. corn production in 1997 is forecast at 9,359 million bushels, based on conditions as of November 1, up 47 million bushels from the October forecast and 66 million higher than 1996. If realized, this would be the third highest crop on record. Yields are expected to average 126.4 bushels per acre, up 0.6 bushel from last month but down 0.7 bushel from last year. As of November 2, the harvest was 75 percent complete in the major producing States, ahead of the 5 -year average of 64 percent.

Expected yields increased in Wisconsin, Ohio, Minnesota, and Kansas this month, outweighing reduced prospects in Illinois, the second largest producing State. Harvest results continue to reveal a large amount of variability across the Corn Belt this year. USDA does not issue a corn production forecast in December, and the final crop estimate will be released on January 13.

The increase in corn production and a reduction in prospective exports account for a rise in projected 1997/98 ending stocks to 928 million bushels. This is also higher than 1996/97's 884 million bushels. Forecast corn exports were reduced 100 million bushels to 1,925 million, but still 8 percent larger than $1996 / 97$. Total use of corn is projected at 9,325 million bushels in 1997/98, second to the 1994/95 record of 9,405 million.

There were also some small revisions made in 1996/97 disappearance this month. The final corn export total was 1,795 million bushels, up 5 million from the prior estimate. A slight increase in August ethanol production raised corn for ethanol use marginally to 429 million bushels, and total food, seed, and industrial (FSI) use is estimated at 1,691 million bushels for the year. Feed and residual use of corn thus slipped to 5,362 million.

## SORGHUM CROP FORECAST NEARLY UNCHANGED

Grain sorghum production in 1996 is forecast at 659 million bushels in 1997, down 5 million from a month ago, and down sharply from the bumper 1996 crop of 803 million. Yields are expected to average 69.2 bushels per acre, a drop of 0.7 bushel from last month, mainly reflecting poorer results in Texas.

The pace of harvest is about average, with 76 percent complete as of November 2. Damage from the late October snow in the Plains is expected to be small, although there are concerns in Kansas where a great deal of the crop is temporarily stored on the ground because the large grain harvest has taxed storage facilities.

## BARLEY EXPORT FORECAST UP AGAIN AS SALES BOOM

U.S. barley exports continue to sizzle, and forecast exports were lifted another 20 million bushels to 90 million in $1997 / 98$, marking the fourth consecutive monthly increase. Exports are expected to about triple from 1996/97. Sales to Japan continue strong, and the United States has captured a large portion of recent tenders by Saudi Arabia, the world's largest barley importer, due to competitive prices even without the Export Enhancement Program.

Barley sales by the European Union (EU), the largest exporter, have started slowly, reflecting policy decisions by officials in the EU's administered export system. The EU commission has only been awarding limited export restitutions, and with reduced supplies available from Canada and Australia, the United States has been the cheapest source of barley to meet some optional origin contracts.

## U.S. 1997/98 CORN EXPORT PROSPECTS SHARPLY LOWER THIS MONTH

The U.S. corn export forecast dropped this month by 100 million bushels to 1,925 million, reflecting increased competition from China's corn and European feed wheat, along with reduced demand from Southeast Asia.

China has continued to market corn aggressively, selling for delivery in the first quarter of 1998, despite sharply reduced production. Earlier reports of an export shutoff appear to have been unfounded. China's 1997/98 corn exports are now projected to reach 4.0 million tons, up 1.5 million from a month ago, and up slightly from the previous year. China's forecast corn consumption is unchanged from last month, but up sharply from the year before. China is expected to maintain growth in corn consumption and exports despite a sharply reduced crop by drawing down its huge stocks by more than half. The large wheat crop harvested this summer, and procured by the State, has likely provided an incentive to clear corn out of storage facilities, and move it into export channels. In the corn surplus areas of northern

China, corn prices have not increased as much as in other parts of the country.
South Korea's corn imports are forecast down 1.25 million tons this month. The world's second largest corn importer has recently made large purchases of feed wheat, mostly from Europe. Very competitive freight rates from the Black Sea to Korea have helped to make European feed wheat competitive with corn in Korea. Extensive heavy rains late in the growing season and during harvest damaged wheat in Europe, increasing feed wheat supplies dramatically in 1997/98. Eastern Europe, Russia, and even Ukraine have large supplies of feed wheat that will compete with U.S. corn in some international markets. Lower animal numbers in recent years have reduced the demand base for feed wheat in Russia, Ukraine, and Eastern Europe.

Corn imports by Malaysia, Indonesia, and the Phillippines are projected down 800,000 tons, or 18 percent, this month because the regional economic slowdown is expected to erode demand for meat. Slower growth in meat production will reduce the need for corn imports, even as shifting exchange rates make imports more expensive. However, 1997/98 corn production in the region is expected to decline, as weather patterns have been disrupted by El Nino, and corn imports by these three countries are expected to nearly match last year.

## FEED GRAIN PRICE FORECASTS REDUCED

Forecast season average farm prices for all the feed grains were lowered this month. This mainly reflects changes in the outlook for corn that heavily shape price expectations for the other feed grains. In addition, prices received to date for barley and oats have been somewhat weaker than expected.

The farm price of corn is forecast at $\$ 2.45-2.85$ per bushel in 1997/98, down 10 cents from last month. This is based on lower export prospects and higher stocks. The ratio of stocks-touse is now projected at 10 percent, up from last month and equal to 1996/97. The price for this year is expected to be slightly lower because there was no large early-season premium like 1996/97 to boost the average.

Futures prices for nearby corn contracts have remained around $\$ 2.80-2.90$ per bushel in recent weeks, and some deferred contracts have been around $\$ 3.00$. Models based on futures prices imply a slightly higher season average. However, the amount of corn already priced by farmers is unknown. Although the seasonal lows for corn generally occur around harvest in the fall, heavy sales by farmers after the beginning of the new year often drop prices in January or February.

The forecast of the price of sorghum received by farmers was cut 15 cents to $\$ 2.15-2.55$ per bushel. This would pull the price of sorghum relative to corn down to 89 percent, slightly below the historical average, as the market encourages use of sorghum in areas where competing grain supplies are fairly abundant.

The season average price of barley is forecast at $\$ 2.25-2.55$ per bushel, down 10 cents on the high end of the range. Despite the strong pace of exports, prices to date have been relatively low. This is partly explained by the quality of the crop, as a large portion has apparently been sold for feed rather than malting. The forecast price of oats was also trimmed 10 cents on the high end to $\$ 1.55-1.65$ per bushel. Prices for both barley and oats will decline significantly from 1996/97 when they benefitted from very high early season prices before new-crop corn was available to replenish very tight supplies.

RAIL PROBLEMS DISRUPT MARKETING FLOWS
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Rail shippers in many parts of the Nation have been experiencing serious shipment delays and service disruptions since late summer. The impact of the current problems varies substantially from region to region and market to market. Grain shippers in the lower Plains and western Corn Belt have been especially hard hit by these problems. Western livestock and poultry feeders that depend on rail shipments of feed grains from these areas have also had to struggle to secure sufficient feed supplies to maintain their herds and flocks. As the fall harvest enters its last weeks, additional grain moving in from the fields could mean that any significant improvement in the current situation is still weeks away.

The service problems now plaguing many grain shippers in the western United States began in July on the Union Pacific (UP) in and around the Houston market. The initial problems appear to have stemmed from stronger than anticipated intermodal and petrochemical demand combined with UP's efforts to consolidate its operations with those of the Southern Pacific Railroad (SP). These problems were further exacerbated by the unexpected large winter wheat harvest in the southern Plains. The 1997 U.S. winter wheat crop was up 27 percent from last year.

Among the factors contributing to the UP-SP consolidation problems were incompatibility of computer systems between the railroads, unsettled labor agreements that restricted crewing flexibility, and lack of adequate locomotive power to move trains. To some extent the shortages of locomotive power reflect long-term operating problems inherited from the cashstrapped SP which UP acquired last year. With the fall harvest and increased demand for grain transportation, the UP's troubles have quickly spread to other areas and other railroads, especially the Burlington Northern Santa Fe (BNSF).

The current rail service problems are substantially different in nature than the types of equipment shortages and service delays that shippers have routinely experienced following many recent harvests. Since early September, grain car loadings on the major railroads have averaged 23,250 cars per week ( $3,200-3,400$ bushels per car). This is down nearly 20 percent from the average weekly loadings during the same period in 1995 when many shippers in the western Corn Belt and upper Plains experienced serious equipment shortages and service disruptions.

Grain traffic on the three major western U.S. railroads--the Burlington Northern Santa Fe, Kansas City Southern (KCS), and UP--is also down this fall as compared with 1995 traffic. Since September, only the KCS has had average weekly grain loadings higher than their 1995 level. Increased grain traffic on the KCS, part of which is the result of rerouting from the UP, has done little to increase the overall level of loadings on the western railroads. Weekly loadings on these carriers are averaging 16,300 cars per week, down 17 percent or nearly 3,500 car loads per week from the same weeks in 1995.

Average weekly grain loadings since September on the four major eastern U.S. railroads-Conrail, CSX Transportation, Illinois Central (IC), and Norfolk Southern--are also down from 1995. Since the first of September, the eastern railroads' weekly grain car loadings have averaged 6,800 cars per week, down 11 percent from their levels in 1995 but up 12 percent from 1996. This increase over 1996 has been driven by increases on the IC. Since the fall harvest season began, the IC has experienced a 45-percent increase in average weekly grain loadings. Some of this increase in grain traffic on the IC reflects shifts in shipments away from the troubled western railroads.

Since early September, rail shipments of grain to export elevator facilities have averaged 6,000 cars per week. This is up more than 50 percent from last year when the U.S. corn crop was smaller, but down 34 percent from their levels in 1995. Despite rail congestion problems in the lower plains which have nearly tripled shipment times for grain railed from Kansas to the Gulf, moderately strong export demand has kept wheat shipments moving to Gulf Coast ports. Since the beginning of the wheat marketing year on June 1, Hard Red Winter (HRW) wheat export inspections are up 6 percent. Since July, when the current rail problems began, HRW wheat inspections at Texas Gulf export houses are up 17 percent from their 1994-96 average. At Texas Gulf facilities, rail car shipments of grain have averaged 2,100 car per week since September--up 41 percent from last year and 2 percent from 1995.

With outstanding export sales of wheat running 20 percent ahead of last year (as of October 30 ), strong demand for transportation to move HRW wheat to the Gulf export houses should continue for some time. Inland river facilities in Oklahoma along the Arkansas River and at Kansas City on the Missouri River are reporting substantial increases in barge shipments of HRW wheat to export facilities in Louisiana along the lower Mississippi River. HRW wheat export inspections at the Louisiana export houses are more than double their average for the 1994-96 years.

Hardest hit by the present rail service problems have been grain shippers in the lower Plains and western Corn Belt, particularly country elevator shippers. Colorado, Kansas, Oklahoma, and Texas have experienced the worst of the problems so far. Good corn and sorghum harvests in this region have followed an excellent winter wheat crop. The large wheat crop and strong market signals to store grain left many grain elevators filled to capacity with little or no room for the large feed grain harvest. Reports from Kansas indicate that as much as 30 million bushels of grain may be piled on the ground. Even though nearly all of this is feed grains, quality deterioration is a growing concern with the recent early snows that fell across the region.

The western Corn Belt and corn producing areas of the upper Plains are also experiencing service problems, particularly in Minnesota, Nebraska, and the corn producing areas of North and South Dakota. The inability to move harvested feed grains, particularly corn, has forced many country elevator shippers to pile grain outside as they wait for long-delayed rail equipment to arrive at there facilities. With this region experiencing its third largest corn crop ever, elevators are scrambling to find adequate storage. The Nebraska Public Service Commission has issued elevators in that State temporary licenses to store as much as 50 million bushels of corn on the ground.

The current rail service delays have forced many livestock and poultry feeders in areas outside of the traditional grain belt to rely extensively on truck shipments to meet their feeding needs. Arkansas poultry feeders have been forced to fill in between delayed rail shipments with trucked grain coming off the river or from feed grain producing areas to the north. Western Plains hog feeders and California feedlot operators have faced similar problems as they have had to scramble to secure steady supplies of feed grains and feed ingredients that are normally delivered by rail.

Southeastern poultry and hog feeders have not been as directly impacted by the rail problems in the Western States. Normally in the first part of the season, grain supplies for these feeders are originated by rail out of the eastern Corn Belt in Illinois, Indiana, Ohio, and Michigan. The eastern railroads serving this market have, however, experienced high levels of demand for covered hopper rail cars. This has slowed transit times for some grain movements, but not to the extent that would drastically delay shipments. Late summer fertilizer demand on the eastern railroads was stronger than usual and has lasted into the early part of the eastern grain harvest. Many of the covered hopper rail cars that were in fertilizer service are gradually
being shifted back into grain service as they return from receivers throughout the Midwest. The return of some of these cars has been delayed by service problems in the Western States.

Grain moving in from the fields as the fall harvest continues will add to existing rail demand in the coming weeks. As of the first week in November, 18 percent of the corn crop and 24 percent of the sorghum crop were still in the field in the western United States. This amounts to more than 1 billion bushels of feed grains or nearly 10 percent of the U.S. feed grain crop. The eastern U.S. corn crop is substantially farther behind, with more than one-third of the corn still in the field. This amounts to more than 1.2 billion bushels of corn. Thus, substantial improvement in the current rail transportation situation could still be weeks away.

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        PLEASE NOTE: ERS HAS MOVED AND ALL PHONE NUMBERS CHANGED IN NOVEMBER.
        NEW NUMBERS ARE LISTED BELOW.
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Table 1--Feed Grains: Marketing year supply and disappearance 1/

| $\begin{aligned} & \text { Year/ } \\ & \text { Qtr. } \end{aligned}$ | Beg. stock | Produc <br> tion | $\begin{gathered} \text { Im- } \\ \text { ports } \end{gathered}$ | Supply | FSI | Feed \& resid. | $\begin{array}{r} \text { Ex- } \\ \text { ports } \end{array}$ | Total disp. | End. stks. | $\begin{gathered} \text { Farm } \\ \text { price } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CORN |  |  |  |  | illion | bushels |  |  |  | \$/bu |
| 1994/95 |  |  |  |  |  |  |  |  |  |  |
| Sep-Nov | 850 | 10,103 | 2 | 10,955 | 409 | 2,016 | 449 | 2,874 | 8,080 | 2.05 |
| Dec-Feb | 8,080 |  | 4 | 8,084 | 409 | 1,493 | 590 | 2,493 | 5,592 | 2.18 |
| Mar-May | 5,592 | - | 3 | 5,595 | 448 | 1,163 | 568 | 2,180 | 3,415 | 2.35 |
| Jun-Aug | 3,415 | -- | 1 | 3,416 | 438 | 850 | 570 | 1,858 | 1,558 | 2.59 |
| Mkt. yr. | 850 | 10,103 | 10 | 10,962 | 1,704 | 5,523 | 2,177 | 9,405 | 1,558 | 2.26 |
| 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 | 370 | 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 | 386 | 1,946 | 487 | 2,819 | 6,904 | 2.95 |
| Dec-Feb | 6,904 | --- | 2 | 6,906 | 398 | 1,490 | 525 | 2,412 | 4,494 | 2.66 |
| Mar-May | 4,494 | --- | 4 | 4,498 | 463 | 1,108 | 431 | 2,001 | 2,497 | 2.76 |
| Jun-Aug | 2,497 | --- | 4 | 2,500 | 444 | 819 | 353 | 1,616 | 884 |  |
| Mkt. yr. | 426 | 9,293 | 13 | 9,733 | 1,691 | 5,362 | 1,795 | 8,849 | 884 | 2.70 |
| 1997/98 |  |  |  |  |  |  |  |  |  |  |
| Mkt. yr. | 884 | 9,359 | 10 | 10,253 | 1,775 | 5,625 | 1,925 | 9,325 | 928 | $2.45-2.85$ |
| SORGHUM |  |  |  |  |  |  |  |  |  |  |
| 1994/95 |  |  |  |  |  |  |  |  |  |  |
| Sep-Nov | 48 | 649 | 0 | 697 | 0 | 210 | 64 | 274 | 422 | 1.91 |
| Dec-Feb | 422 | --- | 0 | 422 | 1 | 80 | 61 | 142 | 281 | 2.02 |
| Mar-May | 281 | --- | 0 | 281 | 1 | 67 | 54 | 122 | 159 | 2.18 |
| Jun-Aug | 159 | --- | 0 | 159 | 1 | 43 | 43 | 87 | 72 | 2.64 |
| Mkt. yr. | 48 | 649 | 0 | 697 | 3 | 400 | 223 | 625 | 72 | 2.13 |
| 1995/96 |  |  |  |  |  |  |  |  |  |  |
| Sep-Nov | 72 | 460 | 0 | 532 | 1 | 176 | 54 | 231 | 301 | 0.00 |
| Dec-Feb | 301 | --- | 0 | 301 | 1 | 71 | 67 | 139 | 163 | 3.25 |
| Mar-May | 163 | --- | 0 | 163 | 5 | 51 | 36 | 92 | 70 | 3.94 |
| Jun-Aug | 70 | --- | 0 | 70 | 4 | 7 | 41 | 52 | 18 | 3.63 |
| Mkt. yr. | 72 | 460 | 0 | 532 | 11 | 305 | 198 | 514 | 18 | 3.19 |
| 1996/97 |  |  |  |  |  |  |  |  |  |  |
| Sep-Nov | 18 | 803 | 0 | 821 | 11 | 287 | 56 | 354 | 467 | 2.52 |
| Dec-Feb | 467 | --- | 0 | 467 | 11 | 124 | 59 | 193 | 274 | 2.25 |
| Mar-May | 274 | - | 0 | 274 | 12 | 82 | 61 | 155 | 119 | 2.41 |
| Jun-Aug | 119 | --- | 0 | 119 | 7 | 36 | 29 | 72 | 47 |  |
| Mkt. yr. | 18 | 803 | 0 | 821 | 40 | 529 | 205 | 774 | 47 | 2.34 |
| 1997/98 |  |  |  |  |  |  |  |  |  |  |
| Mkt. yr. | 47 | 659 | 0 | 706 | 35 | 425 | 200 | 660 | 46 | 2.15-2.55 |

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


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 <br> Beginning <br> September 1 | Corn | Sorg. | Barley | Oats | Feed Grains | Wheat | Total grains | Animal Units | $\begin{gathered} \text { Feed/ } \\ \text { animal } \\ \text { unit } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | -- | Milli | on met | tons |  |  | Mil. | Tons |
| 1994/95 |  |  |  |  |  |  |  |  |  |
| Sep-Nov | 51.2 | 5.3 | 0.7 | 0.7 | 57.9 | -0.8 | 57.1 |  |  |
| Dec-Feb | 37.9 | 2.0 | 1.1 | 0.7 | 41.8 | 0.7 | 42.5 |  |  |
| Mar-May | 29.6 | 1.7 | 0.6 | 0.6 | 32.5 | -0.8 | 31.7 |  |  |
| Jun-Aug | 21.6 | 1.1 | 2.4 | 1.3 | 26.4 | 8.3 | 34.7 |  |  |
| Mkt. yr. | 140.4 | 10.2 | 4.76 | 3.3 | 158.6 | 7.4 | 166.0 | 84.3 | 1.97 |
| \% Change | 17.9 | -12.4 | -20.0 | -13.8 | 12.9 | -22.4 | 10.7 | 0.4 | 10.2 |
| 1995/96 |  |  |  |  |  |  |  |  |  |
| Sep-Nov | 44.6 | 4.5 | 0.6 | 0.5 | 50.2 | -2.7 | 47.5 |  |  |
| Dec-Feb | 34.3 | 1.8 | 0.4 | 0.6 | 37.0 | 0.4 | 37.4 |  |  |
| 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 | 28.1 |  |  |
| Mkt. yr. | 118.9 | 7.7 | 4.5 | 2.6 | 133.7 | 6.3 | 140.1 | 85.0 | 1.65 |
| \% Change | -15.3 | -23.8 | -6.3 | -22.0 | -15.7 | -14.6 | -15.6 | 0.8 | -16.3 |
| 1996/97 |  |  |  |  |  |  |  |  |  |
| Sep-Nov | 49.4 | 7.3 | 0.5 | 0.4 | 57.7 | -2.1 | 55.6 |  |  |
| Dec-Feb | 37.8 | 3.1 | 0.9 | 0.7 | 42.5 | 0.8 | 43.3 |  |  |
| Mar-May | 28.1 | 2.1 | 0.4 | 0.4 | 31.0 | -0.7 | 30.4 |  |  |
| Jun-Aug | 20.8 | 0.9 | 2.2 | 1.3 | 25.2 | 10.9 | 36.1 |  |  |
| Mkt. yr. | 136.2 | 13.4 | 4.0 | 2.7 | 156.4 | 9.0 | 165.4 | 85.3 | 1.94 |
| \% Change | 14.5 | 73.6 | -10.1 | 6.2 | 17.0 | 41.0 | 18.1 | 0.3 | 17.7 |
| 1997/98 |  |  |  |  |  |  |  |  |  |
| Mkt. yr. | 142.9 | 10.8 | 4.0 | 2.9 | 160.5 | 7.5 | 168.0 | 88.2 | 1.91 |
| \% Change | 4.9 | -19.7 | -0.8 | 4.2 | 2.6 | -16.6 | 1.6 | 3.4 | -1.8 |

Table 3--Grain shipments and rates


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/ Jan-Jun average. 6/ Sep-Dec average. 7/ Data are discontinued.

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 / |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mkt. yr. | \$/bu | \$/bu | \$/cwt | \$/cwt | \$/bu | \$/bu | \$/bu |
| 93/94 | 2.54 | 2.85 | 4.95 | 4.90 | 2.05 | 2.48 | 1.55 |
| 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 |
| $\begin{aligned} & \text { Monthly: } \\ & \text { 1996: } \end{aligned}$ |  |  |  |  |  |  |  |
| Jun | 4.74 | 4.99 | 8.57 | 7.95 | 3.22 | 3.28 | 2.11 |
| Jul | 4.70 | 5.07 | 8.35 | 7.38 | 2.79 | 3.74 | 2.48 |
| Aug | 4.48 | 4.73 | 7.43 | 6.89 | 2.60 | 3.40 | 2.36 |
| Sep | 3.39 | 3.69 | 6.30 | 5.89 | 2.34 | 3.15 | 2.08 |
| 1997: |  |  |  |  |  |  |  |
| Jun | 2.59 | 2.86 | 4.80 | 4.75 | 2.31 | 2.62 | 1.89 |
| Jul | 2.44 | 2.69 | 4.70 | 4.36 | 2.04 | 1.74 | 1.76 |
| Aug | 2.60 | 2.86 | 4.97 | 4.71 | 2.10 | 2.66 | 1.80 |
| Sep | 2.61 | 2.88 | 4.81 | 4.69 | 2.29 | 2.74 | 1.78 |

[^0]Table 5--Selected feed and feed by-product prices

|  | $\begin{array}{r} \text { Soybean } \\ \text { meal } \\ 44 \% \text { slv. } \\ \text { Decatur, } \\ \text { IL } \\ 1 / \end{array}$ | Cottonseed 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, Lawrenceburg, IN 1/ | Wheat midlgs, Kansas City 1/ | Alfalfa farm price <br> 2/ 3/ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mkt. yr. |  |  |  |  |  |  |  |  |
| 93/94 | 181.82 | 168.36 | 88.62 | 286.61 | 206.81 | 123.79 | 81.51 | 89.30 |
| 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 | 260.38 | 191.47 | 93.05 | 341.50 | 272.44 | 142.87 | 91.18 | 97.20 |
| $\begin{array}{r} \text { Monthly: } \\ 1996: \end{array}$ |  |  |  |  |  |  |  |  |
| Jun | 227.90 | 192.20 | 122.10 | 315.00 | 231.80 | 190.00 | 127.80 | 96.90 |
| Jul | 242.30 | 201.75 | 109.30 | 308.50 | 239.60 | 175.40 | 112.70 | 92.90 |
| Aug | 251.10 | 193.10 | 111.60 | 295.00 | 246.60 | NQ | 115.80 | 95.60 |
| Sep | 265.50 | 193.10 | 115.75 | 329.40 | 279.80 | 164.00 | 115.40 | 95.70 |
| 1997: |  |  |  |  |  |  |  |  |
| Jun | 275.90 | 190.30 | 72.25 | 349.40 | 279.30 | 126.90 | 64.80 | 115.00 |
| Jul | 261.50 | 170.75 | 70.40 | 337.00 | 271.41 | 125.00 | 61.50 | 106.00 |
| Aug | 261.60 | 176.25 | 75.50 | 345.60 | 261.00 | NQ | 69.80 | 106.00 |
| Sep | 265.70 | 192.00 | 81.10 | 355.00 | 272.10 | 130.00 | 80.30 | 106.00 |
| 1/ Marketing year beginning September 1. $\mathrm{NQ}=\mathrm{No}$ quote. <br> 2/ Marketing year beginning May 1. <br> 3/ Includes monthly \& marketing year revisions from 1994/95. |  |  |  |  |  |  |  |  |

Table 6--Corn: Food, and industrial uses

| Year | HFCS | Glucose and dex. | Starch | ---Alc <br> Fuel | Bev. <br> \& Mfg | Cereals \& other products | $\begin{gathered} \text { Total } \\ \mathrm{F} \& I \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Million bushels |  |  |  |  |
| 1994/95 |  |  |  |  |  |  |  |
| Sep-Nov | 104.6 | 58.8 | 57.3 | 134.4 | 21.2 | 32.9 | 409.2 |
| Dec-Feb | 100.5 | 51.5 | 55.0 | 141.5 | 27.9 | 32.5 | 408.9 |
| Mar-May | 123.8 | 58.4 | 56.2 | 137.7 | 24.3 | 33.3 | 433.8 |
| Jun-Aug | 135.6 | 62.3 | 57.3 | 119.1 | 26.7 | 33.3 | 434.3 |
| Mkt year | 464.6 | 231.1 | 225.7 | 532.8 | 100.1 | 132.0 | 1,686.2 |
| 1995/96 |  |  |  |  |  |  |  |
| Sep-Nov | 110.1 | 60.7 | 55.8 | 121.1 | 32.3 | 33.2 | 413.1 |
| Dec-Feb | 105.1 | 52.9 | 51.5 | 120.8 | 37.5 | 32.8 | 400.6 |
| Mar-May | 130.8 | 60.7 | 55.0 | 91.8 | 39.6 | 33.5 | 411.4 |
| Jun-Aug | 136.2 | 62.8 | 57.0 | 61.9 | 15.6 | 33.5 | 367.0 |
| Mkt year | 482.2 | 237.1 | 219.3 | 395.7 | 125.0 | 133.0 | 1,592.2 |
| 1996/97 |  |  |  |  |  |  |  |
| Sep-Nov | 115.1 | 57.4 | 55.0 | 96.4 | 29.0 | 33.6 | 386.4 |
| Dec-Feb | 110.7 | 56.3 | 55.1 | 109.4 | 33.0 | 33.2 | 397.6 |
| Mar-May | 134.8 | 64.0 | 59.5 | 116.6 | 34.0 | 33.9 | 442.8 |
| Jun-Aug | 145.1 | 65.5 | 59.1 | 106.3 | 34.0 | 33.9 | 444.0 |
| Mkt year | 505.7 | 243.2 | 228.6 | 428.7 | 130.0 | 134.6 | 1,670.8 |
| 1997/98 |  |  |  |  |  |  |  |
| Mkt year | 525.0 | 250.0 | 235.0 | 475.0 | 133.0 | 136.0 | 1,754.0 |

Table 7--Wholesale corn milling product and by-product prices

|  | Corn meal, yellow, New York | Brewers' grits, Chicago | Sugar, dextrose, Midwest | $\begin{array}{r} \text { HFCS, } 42 \% \\ \text { tank cars, } \\ \text { Midwest } \end{array}$ | Corn starch, fob Midwest $3 /$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$/cwt | \$/cwt | cents/lb | cents/lb | \$/cwt |
| Mkt. yr. 1/ \$ |  |  |  |  |  |
| 93/94 | 14.49 | 10.98 | 25.44 | 14.63 | 12.61 |
| 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 2/ | 16.94 | 12.85 | 25.50 | 13.15 | 13.83 |
| Monthly |  |  |  |  |  |
| 1996: |  |  |  |  |  |
| Jul | 20.45 | 16.35 | 25.50 | 13.15 | 18.65 |
| Aug | 21.72 | 17.62 | 25.50 | 13.15 | 19.19 |
| Sep | 20.36 | 16.26 | 25.50 | 13.15 | 18.50 |
| Oct | 17.19 | 13.11 | 25.50 | 13.15 | 15.41 |
| 1997: |  |  |  |  |  |
| 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 |
| Oct 2/ | 16.78 | 12.68 | 25.50 | 8.30 | 13.70 |
| 1/ Marketing year beginning September 1. <br> 2/ Preliminary. NA=Not available. <br> 3/ Bulk-industrial, unmodified. |  |  |  |  |  |

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

| Country/region | $\begin{aligned} & \text {-----1994/95----- } \\ & \text { Sep-Aug } \end{aligned}$ |  | $\begin{aligned} & \text {-----1995/96----- } \\ & \text { Sep-Aug } \end{aligned}$ | $\begin{aligned} & \text {----1996/97---- } \\ & \text { Sep-Aug } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CORN -------------------Thousand |  |  |  |  |  |
| Japan | 15,849 |  | 15,303 | 14, |  |
| Taiwan | 6,027 |  | 5,938 | 5, |  |
| Former USSR | 140 |  | 34 |  |  |
| South Africa | 187 |  | 347 |  |  |
| Sub-Saharan Africa | 449 |  | 321 |  |  |
| EU | 2,836 |  | 2,842 | 1, |  |
| Egypt | 2,569 |  | 2,167 | 2, |  |
| Canada | 1,096 |  | 808 |  |  |
| China | 3,240 |  | 2,207 |  |  |
| East Europe | 112 |  | 188 |  |  |
| Algeria | 1,000 |  | 522 |  |  |
| S. Korea | 8,005 |  | 8,285 | 5, |  |
| Mexico | 2,985 |  | 6,453 | 3, |  |
| Others | 10,723 |  | 11,077 | 10, |  |
| Total | 55,218 |  | 56,494 | 45, |  |
| SORGHUM |  |  |  |  |  |
| Mexico | 2,557 |  | 1,759 | 2, |  |
| Japan | 2,050 |  | 1,617 |  |  |
| Others | 1,008 |  | 1,591 |  |  |
| Total | 5,615 |  | 4,968 | 5, |  |
|  | ---- | /96--- | ------1996 | 7------ | 1997/98 |
|  | Mkt. yr | Jun-Aug | Mkt. yr | Jun-Aug | Jun-Aug |
| BARLEY |  |  |  |  |  |
| Saudi Arabia | 373 | 0 | 88 | 0 | 329 |
| Israel | 42 | 42 | 28 | 7 | 0 |
| Jordan | 0 | 0 | 50 | 0 | 0 |
| Others | 932 | 320 | 613 | 155 | 201 |
| Total | 1,347 | 362 | 779 | 163 | 530 |

1/ Totals may not add due to rounding. Source: Bureau of the Census
Table 9--U.S. imports by country of origin

| Country/region | ------1995/96-----Mkt. yr. Jun-Aug |  | $\begin{aligned} & -----19 \\ & \text { Mkt. yr. } \end{aligned}$ | $\begin{aligned} & \text { 97------- } \\ & \text { Jun-Aug } \end{aligned}$ | $\begin{aligned} & \text { 1997/98 } \\ & \text { Jun-Aug } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OATS ------------------Thousand t |  |  |  |  |  |
| Canada | 1,302 | 408 | 1,440 | 106 | 281 |
| Finland | 22 | 8 | 99 | 0 | 25 |
| Sweden | 62 | 62 | 140 | 0 | 22 |
| Other | 0 | 0 | 0 | 0 | 0 |
| Total 1/ | 1,387 | 479 | 1,680 | 106 | 328 |
| BARLEY, MALTING 740 (191 608 |  |  |  |  |  |
| Canada | 740 | 191 | 608 | 142 | 221 |
| Other | 0 | 0 | 0 | 0 | 0 |
| Total 1/ | 740 | 191 | 609 | 142 | 221 |
| BARLEY, OTHER $2 /$ |  |  |  |  |  |
| Canada | 141 | 63 | 191 | 51 | 49 |
| Other | 6 | 5 | 0 | 0 | 0 |
| Total 1/ | 147 | 68 | 192 | 51 | 49 |

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


[^0]:    1/ Marketing year beginning September 1.
    2/ Marketing year beginning June 1.

