FEED OUTLOOK

United States Department of Agriculture

FDS-1196 Economic Research Service

Approved by the World Agricultural Outlook Board

November 13, 1996

HIGHLIGHTS

- o 1996 Corn Production Forecast Raised to 9,265 Million Bushels
- o Sorghum Crop Forecast Raised Another 23 Million Bushels
- o Feed Grain Prices Declining
- o International Competition To Remain Strong

INCREASE IN FEED GRAIN SUPPLY OUTSTRIPS PROSPECTIVE GAINS IN USE

Forecast feed grain supply for 1996/97 was raised 2.5 percent this month to 284.2 million metric tons because of larger corn and sorghum crops. This is more than 10 percent greater than the previous year, although well below 1994/95. Forecast use in 1996/97 was only increased slightly to 250.7 million tons.

More abundant supplies are pushing down feed grain prices and will lead to some rebuilding of stocks. Ending stocks of feed grains are projected up nearly 6 million tons from last month to 33.6 million, and more than double the 1995/96 total.

1996 CORN OUTPUT FORECAST UP 253 MILLION BUSHELS

U.S. corn production is forecast at 9,265 million bushels, based on conditions as of November 1, up 2.8 percent from last month. This stems from an increase in the forecast yield of 3.5 bushels per acre to an average of 126.5 bushels, reflecting favorable late season conditions. Compared with 1995, the crop is forecast nearly 26 percent higher.

Prospective yields increased across most of the Corn Belt, including Indiana and Ohio, as well as many other States such as Kansas and Texas. The largest single production gain was in Iowa. Record yields are forecast for Nebraska, Kansas, and Missouri, as well as some smaller producing States including Pennsylvania, Maryland, and Virginia.

Concerns about the negative impact of the late crop have now been largely alleviated. Killing frosts occurred later than normal in most of the major corn growing areas, allowing the crop to mature. The harvest is now just slightly behind average, with 79 percent harvested nationally as of November 10, compared with the 5-year average of 81 percent.

Although large, this month's increase in the forecast production is not unprecedented. In both 1992 and 1994, the November crop forecast was raised 4 percent. There are several rough similarities between the 1992 season and 1996. In both years, cool weather was favorable for pollination but tended to delay crop maturity. For the seven States where objective yield surveys are conducted, a record ear count per acre is indicated for 1996. The previous record for final ears per acre was set in 1992. Although the 1992 crop was planted on time, and this year's was planted late, the 1992 harvest was even slower, with only 50 percent of the crop harvested by the first week of November because of delays caused by heavy rains and snow.

SORGHUM CROP FORECAST AT 820 MILLION BUSHELS

Total sorghum production in 1996 is forecast at 820 million bushels, up 78 percent from last year, and 3 percent higher than October. Area harvested, at 12 million acres, is forecast up 45 percent from last year and yields are up 23 percent. The average yield is up 2 bushels from last month to 68.4 bushels per acre, the fourth largest on record.

Since the first of October, yields were up in Arkansas, Colorado, Kansas, and Nebraska, more than offsetting declines in Mississippi and Louisiana. Production in Kansas, the State with the largest acreage and production, is up 112 percent from last year, reflecting sharp increases in both acreage and yields. Nebraska has the highest State yield in 1996 at 94 bushels per acre, up from 58 in 1995. Kentucky and Missouri both have yields of 92 bushels per acre in 1996, up from 84 and 73 bushels in 1995.

PROJECTED CORN STOCKS INCREASED 204 MILLION BUSHELS

Forecast feed and residual use of corn in 1996/97 was raised 50 million bushels from last month to 4,975 million, in light of the larger crop and more attractive prices. This is up 6 percent from 1995/96. Corn will be competing with larger supplies of other grains and feedstuffs, limiting the potential gains. No changes were made in forecast exports or food and industrial use this month.

Ending stocks of corn in 1996/97 are projected at 1,107 million bushels, up 204 million from a month ago. This would be more than double the very low 426 million of 1995/96, but below those of 1994/95. As an indication of the dramatically different market setting from last year, the ratio of stocks-to-use is projected to rise to 12.9 percent from 5 percent last year.

CORN. SORGHUM. AND BARLEY PRICE FORECASTS CUT DUE TO LARGER SUPPLIES

The forecast season average farm price of corn in 1996/97 was lowered 30 cents this month to \$2.50-2.90 per bushel in the face of the larger crop. The price forecast for sorghum was reduced 35 cents to \$2.20-2.60 per bushel, also reflecting more abundant supplies. Sorghum prices are also expected to be much weaker relative to corn this year, falling below the historical relationship of about 92-94 percent. In 1995/96, sorghum prices nearly matched those of corn, averaging an unusually high 98 percent, given the very tight feed grain market.

Market prices for all the feed grains have continued to slide over the last month. Cash prices for corn at Central Illinois points fell as low as \$2.51 per bushel in early November, down about 40 cents in a month, and the lowest since late May 1995. The December futures contract for corn dropped as low as \$2.60 before a slight rebound prior to the November crop report.

The average farm price of corn fell to under \$3.00 per bushel for the first in 11 months, to a preliminary \$2.91 in October. This was down 65 cents from September, following a 74-cents drop from August to September. These were the sharpest month-to-month declines on record. The October farm price of sorghum was a preliminary \$2.56 per bushel, down 49 cents from September, and the lowest since May 1995.

The forecast farm price of all barley for 1996/97 was trimmed 5 cents to \$2.40-2.80 per bushel. Although falling corn prices will probably pull down barley prices, a fairly substantial share of the barley crop is normally marketed by this time, reducing the potential for large adjustments in the season average. At the onset of the barley marketing year, farm prices for feed barley were very strong at well over \$3.00 per bushel, and in June feed barley actually received a premium over malting barley. Since then, a more typical pattern has begun to develop, with malting barley receiving a premium over feed, as feed grain supplies have started to rebound. This premium increased to 61 cents in October.

1995/96 FINAL CORN EXPORTS WERE 2,228 MILLION BUSHELS

Based on data from the Bureau of the Census, U.S. corn exports totaled 2,228 million bushels in 1995/96, up slightly from the previous forecast and 2 percent higher than 1994/95. This was the fourth highest export year on record and the highest since 1989/90. Sorghum exports declined about 11 percent to 198 million bushels.

Japan remained the top market for U.S. corn, taking nearly twice as much as the next largest customer, South Korea, although shipments were down 3 percent from 1994/95. Exports to South Korea were up nearly 4 percent to a record 8.3 million tons. Mexico surpassed Taiwan as the third leading destination, with exports more than doubling from the year before to a record 6.5 million tons (and more than double the NAFTA required minimum import level). This reflected strong demand and a short domestic crop. Exports to Taiwan were about unchanged, but it slipped to the fourth largest market. Exports to China declined more than 30 percent from the previous year and its rank fell from fourth to sixth.

There were many offsetting changes in U.S. exports to other markets. Sales to Malaysia, which normally buys from other Asian suppliers, were up sharply. Exports to South Africa were up due to a drought-reduced crop in 1995, while gains in sales to the Philippines reflected growing feed demand. On the other hand, there were notable declines in exports to North Africa, Iran, and Brazil.

Given total corn disappearance of 8,522 million bushels for 1995/96, the adjustment in the export data resulted in a drop of 13 million bushels in feed and residual use to 4,711 million.

INTERNATIONAL MARKET COMPETITION HEATS UP

The U.S. 1996/97 corn export forecast remains unchanged despite larger production and lower prices because of increasing competition in international markets. Forecast foreign coarse grain production is up this month, with increases for both importing countries and export competitors.

In the Southern Hemisphere, planting is underway. Argentina is expected to harvest 13.5 million tons of corn, up 1 million from last month, on increased area and favorable early season growing conditions. The forecast for Argentina's corn exports increased 750,000 tons, as Argentina is expected to sell aggressively. South Africa is forecast to export less, offsetting the increase for Argentina, because it is not expected to be as competitive at lower prices.

U.S. corn exports are facing strong competition from other grains as well. The European Union (EU) resumed export subsidies late this summer for the first time in over a year. The subsidies have been increasing as prices have dropped. Barley export restitutions for most of October averaged nearly \$40 per ton, up from a very small or no subsidy in August. The EU is also subsidizing large exports of rye and oats. Canada and Australia are also expected to have large barley exports. Unfavorable harvest conditions damaged wheat quality in several Canadian regions, boosting supplies of feed wheat, that are expected to be marketed in direct competition with U.S. corn in markets like South Korea.

NOTE: THE ANNUAL FEED YEARBOOK IS NOW SCHEDULED FOR MARCH 1997.

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

						Feed & resid.			_	Farm price
CORN						bushels				
1993/94 Sep-Nov Dec-Feb Mar-May Jun-Aug	5,937 3,996			•	380 376 418 418	1,703 1,243 955 800	435 330 270 293	2,518 1,949 1,642 1,511	5,937 3,996 2,360 850	2.34 2.71 2.67 2.34
Mkt. yr	. 2,113	6,336	21	8,470	1,591	4,700	1,328	7,620	850	2.50
1994/95 Sep-Nov Dec-Feb Mar-May Jun-Aug	8,080 5,592		4	10,955 8,084 5,595 3,416	406 406 445 434	1,497 1,167	449 590 568 570	2,874 2,493 2,180 1,858	8,080 5,592 3,415 1,558	2.05 2.18 2.35 2.59
Mkt. yr	. 850	10,103	10	10,962	1,690	5,537	2,177	9,405	1,558	2.26
1995/96 Sep-Nov Dec-Feb Mar-May Jun-Aug	6,106 3,800				409 397 411 366	1,352	660 562 610 396	2,830 2,311 2,087 1,294	6,106 3,800 1,718 426	2.80 3.15 3.76 4.31
Mkt. yr	. 1,558	7,374	16	8,948	1,583	4,711	2,228	8,522	426	3.24
1996/97										
Mkt. yr	. 426	9,265	10	9,702	1,670	4,975	1,950	8,595	1,107	2.50-2.90
SORGHUM 1993/94 Sep-Nov Dec-Feb Mar-May Jun-Aug			0 0 0	709 446 276 128	1 1 1	223 109 83 41	39 60 64 38	263 170 148 81	446 276 128 48	2.22 2.59 2.39 2.10
Mkt. yr	. 175	534	0	709	4	456	202	662	48	2.31
1994/95 Sep-Nov Dec-Feb Mar-May Jun-Aug			0 0 0 0	697 422 281 159	0 1 1	210 80 67 43	64 61 54 43	274 142 122 87	422 281 159 72	1.91 2.02 2.18 2.64
Mkt. yr	. 48	649	0	697	3	400	223	625	72	2.13
1995/96 Sep-Nov Dec-Feb Mar-May Jun-Aug	72 301 163 70	460 	0 0 0 0	532 301 163 70	1 1 1 1	176 71 55 10	54 67 36 41	231 139 92 52	301 163 70 18	2.36 3.25 3.94 3.63
Mkt. yr	. 72	460	0	532	4	312	198	514	18	3.19
1996/97										
Mkt. yr	. 18	820	0	839	4	525	225	754	85	2.20-2.60

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

Year/	Beg.	Produc-	Im- S	Supply	FSI	Feed &	Ex-	Total disp.	End. stks.	Farm price
BARLEY 1993/94				M	illion	bushels				
Jun-Aug	151	398	3	552	43	92	15	150	403	1.91
Sep-Nov	403		11	413	37	28	15	80	333	2.02
Dec-Feb	333		24	357	34	87	12	133	224	2.19
Mar-May	224		34	258	53	43	24	119	139	2.24
Mkt. yr.	151	398	71	621	166	250	66	482	139	1.99
1994/95										
Jun-Aug	139	375	24	538	44	122	20	186	352	2.00
Sep-Nov	352		14	366	36	32	19	87	279	1.98
Dec-Feb	279		14	292	36	53	11	99	193	2.05
Mar-May	193		14	207	51	27	17	95	113	2.15
Mkt. yr.	139	375	66	580	166	235	66	467	113	2.03
1995/96										
Jun-Aug	113	360	12	484	42	113	17	172	313	2.53
Sep-Nov	313		8	321	38	30	11	78	243	2.80
Dec-Feb	243		8	251	34	19	20	73	178	3.18
Mar-May	178		12	190	52	23	16	91	100	3.29
Mkt. yr.	113	360	41	513	166	185	62	413	100	2.89
1996/97										
Mkt. yr.	100	397	45	541	166	235	35	436	105	2.40-2.80
OATS										
1993/94										
Jun-Aug	113		17	337	32	84	1.5	118	219	1.35
Sep-Nov	219		35	254	29	30	0.7	60 70	194	1.33
Dec-Feb	194		31 24	225 170	27 37	51 28	0.5	79 65	147 106	1.42
Mar-May	147		2 4	170	3 /	28	0.2	0.5	106	1.39
Mkt. yr.	113	207	107	427	125	193	3.0	321	106	1.36
1994/95										
Jun-Aug	106	229	20	355	32	103	0.2	135	220	1.19
Sep-Nov	220		34	254	30	32	0.2	62	192	1.19
Dec-Feb	192		23	215	28	38	0.4	66	149	1.21
Mar-May	149		16	165	35	29	0.2	64	101	1.36
Mkt. yr.	106	229	93	428	124	202	1.0	327	101	1.22
1995/96										
Jun-Aug	101	162	28	290	32	78	0.4	110	180	1.48
Sep-Nov	180		26	206	30	23	0.5	53	153	1.52
Dec-Feb	153		18	171	27	30	0.3	58	113	1.94
Mar-May	113		9	122	34	21	0.8	56	66	2.21
Mkt. yr.	101	162	81	343	123	152	2.0	277	66	1.68
1996/97										
Mkt. yr.	66	155	85	307	120	115	3.0	238	69	1.65-2.05

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/ animal unit
1993/94			-Million	metric	tons			Mil.	Tons
Sep-Nov		2.8	1.9 0.9	0.5	37.1	1.1 -0.7	27.1		
Mkt. yr. % Change						9.6 145.2		84.0 1.5	
	38.0 29.6	2.0 1.7	0.6	0.6	41.8 32.4	0.7	42.5 31.6		
Mkt. yr. % Change						7.4 -22.4		84.3	
	44.7 34.3 27.1 13.5	1.8	0.4 0.5	0.5	50.2 37.1 29.3 17.8	0.3 -1.8	37.4 27.5		
Mkt. yr. % Change	119.7 -14.9	7.9 -22.0	4.6 -5.7	2.1 -24.5	134.4 -15.3	6.2 -16.4		84.9 0.7	
1996/97									
Mkt. yr. % Change					145.9 8.6	8.0 28.6	153.9 9.5	85.7 0.9	1.80

Table 3--Grain shipments and rates

	L994/95 kt. Yr.		· - ·	1996/97 September
Barge shipments 1/ (Million ton/month)	3.1	4/ 3.7	3.9	NA
Barge rate index 2/ (Dec 1990 = 100)	160.8	151.5	224.8	116.2
Railcar loadings 3/ (1,000 cars/week)	28.5	28.2	31.2	17.9
Rail rate index 2/ (Dec 1984 = 100)	116.6	116.7	117.0	116.1

^{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: Association of American Railroads.

^{4/ 11-}months average. NA = Not available.

Table 4--Cash feed grain prices

	Corn, No. 2, Yel, Ctrl. IL 1/	Yel, Gulf	No. 2, Yel	No. 2, Yel, Gulf	No. 2, feed, Duluth	Barley, No. 3 or better, Malting, Minn. 2/	No. 2, Heavy
Mkt. yr.	\$/bu	\$/bu	\$/cwt	\$/cwt	\$/bu	\$/bu	\$/bu
92/93 93/94 94/95 95/96 3/	2.12 2.54 2.34 3.91	2.46 2.85 2.78 4.30	4.06 4.95 4.75 7.30	4.27 4.90 4.62 7.19	2.11 2.05 2.02 2.67	2.37 2.48 2.75 3.69	1.58 1.55 1.36 2.28
Monthly: 1995:							
Jun Jul Aug Sep	2.65 2.79 2.68 2.83	3.04 3.23 3.21 3.32	5.26 5.61 5.53 5.84	4.97 5.41 5.38 5.78	2.22 2.25 2.09 2.06	3.15 3.69 3.22 3.58	1.73 1.92 1.96 2.04
1996: Jun Jul Aug Sep	4.74 4.70 4.48 3.39	4.99 5.07 4.73 3.69	8.57 8.35 7.43 6.30	7.95 7.38 6.89 5.89	3.22 2.79 2.60 2.34	3.28 3.74 3.40 3.15	2.11 2.48 2.36 2.08

^{1/} Marketing year beginning September 1.

Table 5--Selected feed and feed by-product prices

	Soybean meal 44% slv. Decatur,	Cotton- seed meal, 41% slv.	IĹ	Corn gluten meal, IL pts.	Meat & bone meal, Central U.S.	dried	midlgs,	price
	1/	Memphis 1/	1/	1/	1/	1/	1/	2/ 3/
				\$/ton				
Mkt. yr. 92/93 93/94 94/95 95/96	180.80 181.82 151.77 217.27	159.22 168.36 112.64 186.12	95.95 88.62 82.77 116.47	284.60 286.61 221.95 319.35	220.93 206.81 170.51 222.07	122.84 123.79 106.70 151.37	69.69 81.51 65.04 118.08	78.20 89.30 92.10 88.20
Monthly: 1995:								
Jun Jul Aug Sep	149.10 160.10 157.50 171.75	108.75 116.90 116.50 137.60	79.90 81.90 79.40 81.60	208.10 218.75 232.00 250.00	161.60 159.80 157.40 166.70	98.90 101.00 NQ 112.00	63.61 61.80 71.90 88.10	
1996: Jun Jul Aug Sep	227.90 242.30 251.10 265.50	192.20 201.75 193.10 193.10	122.10 109.30 111.60 115.75	315.00 308.50 295.00 329.40	231.80 239.60 246.60 279.80	190.00 175.40 NQ 164.00		96.90 92.90 96.00 95.70

^{1/} Marketing year beginning September 1. NQ = No quotes. 2/ Marketing year beginning May 1.

^{2/} Marketing year beginning June 1.

^{3/} Preliminary.

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

Table 6--Corn: Food, and industrial uses

		 Glucose and			-	Cereals & other	Total
Year	HFCS		Starch			products	
				M:	illion b	ushels	
1993/94							
-	98.5						
Dec-Feb	95.3	49.6 56.7	52.7 56.3	119.3 112.4			
Mar-May Jun-Auq			57.3			29.7 29.7	
ouii Aug	131.0	00.0	57.5	114.5	23.2	27.1	41/.1
Mkt year	443.6	222.9	222.7	458.3	105.8	118.0	1571.3
1994/95							
Sep-Nov	104.6	58.8	57.3	134.4	21.2	29.4	405.8
Dec-Feb	100.5	51.5	55.0	141.5			
Mar-May	123.8			137.7			
Jun-Aug	135.6	62.3	57.3	119.1	26.7	29.7	430.8
Mkt year	464.6	231.1	225.7	532.8	100.0	118.0	1672.1
1995/96							
Sep-Nov	110.1	60.7	55.8	121.1	32.3	29.4	409.4
Dec-Feb	105.1	52.9	51.5	120.8	37.5	29.1	396.9
Mar-May	130.8	60.7		91.8			
Jun-Aug	136.2	62.8	57.0	61.9	15.5	29.7	363.2
Mkt year	482.2	237.0	219.3	395.7	110.4	118.0	1562.6
1996/97							
Mkt year	505.0	245.0	230.0	450.0	100.0	120.0	1650.0

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/
Mkt. yr. 1/	\$/cwt	\$/cwt	cents/lb	cents/lb	\$/cwt
92/93	13.39	9.68	24.50	13.30	10.70
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 2/	17.79	14.21	25.50	13.01	15.98
95/96 2/	17.79	14.21	23.50	13.01	15.90
Monthly 1995:					
Jul	13.85	11.30	25.50	11.70	13.64
Aug	13.80	11.25	25.50	11.80	13.85
Sep	14.34	11.80	25.50	11.80	13.67
Oct 2/	14.76	12.23	25.50	12.55	13.94
OCL 2/	14.70	12.23	23.30	12.55	13.94
1996:					
Jul	20.45	16.35	25.50	13.15	18.65
Aug	21.72	17.62	25.50	13.15	19.19
Sep	20.38	16.29	25.50	13.15	18.50
Oct 2/	17.28	13.20	25.50	13.15	15.41
000 27	17.20	13.20	23.30	13.13	13.11

^{1/} Marketing year beginning September 1.
2/ Preliminary.
3/ Bulk-industrial, unmodified.

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

Country/region	19	93/94	199	94/95	1995/96
			Sep-Aug		
CORN			-Thousand tor	ns	
Japan	12,322		15,849		15,303
S. Korea	508		8,005		8,285
Mexico	1,468		2,985		6,453
Taiwan	5,077		6,027		5,938
EU	1,765		2,836		2,842
China	0		3,240		2,207
Egypt	1,553		2,569		2,167
Canada	603		1,096		808
Algeria	1,176		1,000		522
South Africa	12		187		347
Sub-Saharan Africa			449		321
East Europe	48		112		188
	2,909		140		34
Others	5,813		10,723		11,077
Total	33,649		55,218		56,494
SORGHUM					
Mexico	2,972		2,557		1,759
Japan	1,640		2,050		1,617
Others	432		1,008		1,591
Total	5,044		5,615		4,968
		 -1994/95	199	95/96	1996/97
	Mkt. yr.	June-Aug	Mkt. yr.	June-Aug	June-Aug
BARLEY Saudi Arabia	203		373	0	
Israel			42		0 7
Jordan	400 51	199	0	0	0
Others	671	51 145	932	362	163
Others	0/1	T.4.2	934	302	103
Total	1,392	394	1,347	405	170

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

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

Country/region		-1994/95	19	95/96	1996/97
	Mkt. yr.	June-Aug	Mkt. yr.	June-Aug	June-Aug
OATS			Thousand to	ns	
Canada Finland Sweden	1,161 374 70	255 71 26	1,302 22 62	408 8 62	106 0 0
Other	0	0	0	0	0
Total 1/	1,605	351	1,387	478	106
BARLEY, MALTING Canada Other	715 0	215 0	740 0	191 0	142 0
Total 1/	716	215	740	191	142
BARLEY, OTHER 2/ Canada Other	702 16	300 10	141 6	68 0	51 0
Total 1/	719	310	147	68	51

^{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