

FEED OUTLOOK

United States Department of Agriculture

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Approved by the World Agricultural Outlook Board

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HIGHLIGHTS

- o Corn Export Forecasts Raised for Argentina and China
- o U.S. Corn Exports Unchanged on the Strength of Higher World Trade
- o Foreign Exporters Are Capturing Greater Market Share of World Coarse Grain Trade in 1996/97

U.S. FEED GRAIN OUTLOOK LARGELY UNCHANGED

There were only some minor adjustments in U.S. supply and use forecasts this month. These consisted of a small increase in oats imports and some small changes between components of industrial use of corn. Quarterly disappearance estimates for September-November were also adjusted slightly with the inclusion of final trade data for November. However, there were more substantial changes in the world outlook. World trade in corn in 1996/97 was increased because of higher projected exports by Argentina and China, along with larger prospective imports for several countries. No adjustments were made in forecast U.S. exports from last month.

U.S. feed grain supplies in 1996/97 are up 11 percent from the year before. This has brought down prices and will result in some rebuilding of stocks. The increased supply and more favorable prices are leading to a rebound in domestic use, also forecast up 11 percent. Competition in the world market has increased, however, and U.S. exports will be down from 1995/96. Foreign production is up, reflecting widespread gains among both exporting countries and importers. While favorable weather accounts for much of the rise, there was a marked increase in acreage in several countries in response to last year's strong prices.

SMALL SHIFT IN CORN USED FOR ALCOHOL BUT NO CHANGE IN TOTAL FSI

In 1996/97, food, seed and industrial use (FSI) of corn is expected to total 1.67 billion bushels, up 6 percent from last year. This 1996/97 use, if realized, would represent 17 percent of the total supply of corn, down from the 18 percent used in 1995/96. Industrial uses of corn have started slowly in the 1996/97 marketing year because of short corn supplies at the start of the marketing year. Fuel alcohol producers in particular produced less in the first quarter than last year. With the cost of corn declining from last summer highs, industrial use is expected to pick up.

Corn used for fuel alcohol production for 1996/97 was reduced 10 million bushels from the earlier forecast, but this was offset by an equal increase in corn used for beverage and manufacturing alcohol. The fuel alcohol estimate was trimmed because of the slow start and because December production was not up from the prior month as expected for the winter oxygenate period. Use for the year is forecast to increase 11 percent from 1995/96. Many

producers are reporting their individual operations are at full production but these generally are firms that can sell beverage and manufacturing alcohol as well as fuel alcohol. Trade data provide further evidence of some shift in corn use, with exports of beverage alcohol during January-November 1996 up nearly 2 and half times from the same period in 1995.

High fructose corn syrup (HFCS) production in September-November 1996 was up nearly 5 percent from the same period in 1995, suggesting an increase for the year. Glucose, dextrose, and starch production were below last year in the first quarter. However, increased availability of corn after the harvest and lower prices are expected to boost production and shipments later in the year. The continued strong economy should keep paper needs up and declines in starch prices are expected to encourage starch use.

UPDATE ON FEED AND RESIDUAL USE

Feed and residual use of the four feed grains plus wheat in 1996/97 is expected to increase 13 percent from the 141 million tons used in September 1995-August 1996. Feed and residual use in 1995/96 was down 15 percent from the year earlier when a short corn crop boosted prices and forced feeders to cut back. The index of grain consuming animal units (GCAU's) for 1996/97 is expected to be up 1 percent from last year's 85 million units. The grain used per GCAU in 1996/97 would be 1.84 tons, up from 1.65 tons in 1995/96. In the index components, GCAU's for dairy and hogs are down while those for cattle on feed and poultry are up.

The dairy sector has been able to reduce the number of cows but increase output per cow. In 1996, output per cow was up in the 22 reporting States except during May-July, and the average was up for the year. Cow numbers were consistently down all year and for the entire U.S., cow numbers were down 1 percent from last year. Even though output per cow was above last year, total milk production in 1996 was down 1 percent from 1995. On January 1, 1997, grain and other concentrates fed daily per cow totaled 19.2 pounds, up from 18.8 in 1996. The value per 100 pounds of concentrate ration in 1997 was up 3 percent from a year earlier. As concentrate prices decline because of lower-cost feed grains, concentrate use will likely continue above last year, especially because prices for high quality hay have been strong. This is encouraging some substitution of grains for hay.

Beef production in 1997 is expected to be down from 1996. The January 1 cattle inventory was down 2 percent from 1996 for all cattle and calves. Dairy cows were down 1 percent and beef cows were down 3 percent from the prior year. Heifers for dairy and beef cow replacements were both down percent from 1996. However, the number of cattle on feed was up 2 percent, which is more important for the GCAU index than other beef cattle that usually receive little concentrate feed. Thus feed use is expected to remain strong in the cattle feeding industry for 1996/97.

The strong grain prices last summer caused hog farmers to cut hog numbers, making the December 1, 1996, hog inventory the lowest since 1990. The breeding inventory was the smallest December 1 number on record. However, the pig crop, which was down 5 percent during the spring and summer quarters, was only down 1 percent in the fall quarter. As a result, the GCAU index for hogs is expected to be down 2 percent from last year. Poultry meat production is expected to continue increasing in the 1996/97 feed marketing year. As a result feed needs will continue strong for broilers and turkeys. Egg production is expected to increase and thus also raise feed needs.

WORLD CORN TRADE FORECAST RAISED

World corn trade in 1996/97 is projected at 63.4 million tons, up 700,000 tons from last month. Larger than expected purchases by several countries supported increased import forecasts. The largest increase is for Kenya, up 500,000 tons, with smaller increases for Colombia, Iran, Poland, Guatemala, South Africa, and Russia. Corn imports forecast for North Korea were raised 250,000 tons because of larger expected shipments from China.

These import gains more than offset downward adjustments in forecasts for China (-450,000 tons) and Indonesia (-550,000 tons). In Indonesia, the government has had some success increasing production to reduce reliance on imports. Following a record crop, China's recent sales and shipments of corn indicate it will be a small net exporter in 1996/97.

No change was made in Mexico's trade forecasts this month despite improved crop prospects. Corn and sorghum production in Mexico was increased this month for both 1995/96 and for forecast 1996/97. Total coarse grain production in 1996/97 is forecast at 25.5 million tons, up 2.5 million from a month ago. However, increased use estimated in 1995/96 indicates strong demand in Mexico as the economy rebounds. Imports will be needed to maintain consumption growth so import forecasts for 1996/97 were not changed for either corn or sorghum.

CHINA AND ARGENTINA CORN EXPORTS UP, U.S. UNCHANGED

Despite increases in competitor exports, the U.S. 1996/97 export forecast remains at 1.9 billion bushels because of higher world imports. Corn exports forecast for China were increased 500,000 tons this month to 1 million, reflecting recent sales, mainly to South Korea, Malaysia, and the Philippines. China has traditionally been most successful selling corn in Asian markets where some customers prefer China's small vessels that can serve smaller ports. Argentina's corn export forecast was increased 225,000 tons (for the October/September year) because of further gains in its record crop prospects.

U.S. OATS IMPORT FORECAST UP 5 MILLION BUSHELS

The U.S. oats import forecast increased because of the strong import pace to date and because of expected imports from Scandinavia. The EU has recently awarded a relatively large volume of export restitutions (subsidies) for oats from Sweden and Finland. Both countries increased oats production in 1996/97. Forecast oats exports by Canada were reduced this month as slow farmer marketings and winter-related logistics problems are expected to limit shipments to the United States.

FOREIGN EXPORTERS CAPTURE INCREASED COARSE GRAIN TRADE IN 1996/97

World coarse grain (corn, sorghum, barley, oats, rye, millet, and mixed grains) imports in 1996/97 are forecast up about 1 percent from a year earlier, but still 8 percent less than in 1994/95. Import demand in 1996/97 remains strong despite increased foreign production. However, world corn trade in 1996/97 is forecast down 4 percent from a year ago because of increased competition from other feed grains.

Although U.S. production and supplies are up sharply in 1996/97, and world coarse grain trade is expanding, U.S. exports are expected to decline from the year before because foreign exporters are increasing market share. The U.S. share of world coarse grain trade is forecast at 61.6 percent in 1996/97. In 1994/95 and 1995/96 the United States captured about two thirds of world coarse grain trade, more than in the previous 4 years when China was a large net exporter and the EU was subsidizing aggressively, and much more than in 1993/94 when a short crop caused U.S. market share to fall below 50 percent. Argentina, Canada, China, and the EU are expected to have increased production and supplies of coarse grains in 1996/97. In addition, South Africa continues to market corn from its large 1995/96 crop.

PRICE OUTLOOK LARGELY UNCHANGED

There were no changes in farm price forecasts this month. Feed grain prices have been relatively steady in recent weeks, with little change in market conditions. Following the January report, there was a small upward bump in cash and futures prices for corn, reflecting a reduction in projected ending stocks and some support from strengthening soybean prices. The preliminary price of corn received by farmers in January was \$2.63 per bushel, unchanged from December, and the sorghum price was up one cent to \$2.22 per bushel.

Cash corn prices at Central Illinois points rose slightly in mid-January and since have stayed in a narrow range around \$2.66. Similarly, nearby corn futures prices (March contract) rose and then hovered in a narrow range around \$2.70 for the last few weeks. The price direction for the next few weeks will increasingly be influenced by spring planting prospects. While a typical seasonal pattern would show a slight upward trend, expectations of a large 1997 crop could begin to depress prices.

Prices for feed grains and many related byproduct feeds are currently down sharply from a year ago. However, prices for protein meals are actually higher. This mainly reflects very strong demand for soybean meal, especially in export markets. Protein meal prices are likely to soften in the next few months as South American supplies enter the market.

Although it is only one indicator of possible planting direction, the ratio of soybean to corn prices based on cash prices and nearby futures contracts would favor soybean acres over corn. The ratio based on futures prices prevailing after harvest this fall is less conclusive, however, falling to around break-even levels.

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NOTE: THE FEED YEARBOOK IS SCHEDULED FOR MARCH 1997. THE SUMMARY WILL BE RELEASED MARCH 21. ELECTRONIC AND PRINTED VERSIONS WILL BE AVAILABLE ABOUT 1-2 WEEKS LATER.

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
1994/95										
Sep-Nov	850	10,103	2	10,955	406	2,019	449	2,874	8,080	2.05
Dec-Feb	8,080	---	4	8,084	406	1,497	590	2,493	5,592	2.18
Mar-May	5,592	---	3	5,595	445	1,167	568	2,180	3,415	2.35
Jun-Aug	3,415	---	1	3,416	434	854	570	1,858	1,558	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	1,558	7,374	4	8,935	409	1,760	660	2,830	6,106	2.80
Dec-Feb	6,106	---	5	6,111	397	1,352	562	2,311	3,800	3.15
Mar-May	3,800	---	5	3,805	411	1,066	610	2,087	1,718	3.76
Jun-Aug	1,718	---	3	1,721	366	533	396	1,295	426	4.31
Mkt. yr.	1,558	7,374	16	8,948	1,583	4,711	2,228	8,522	426	3.24
1996/97										
Sep-Nov	426	9,293	3	9,723	386	1,945	487	2,817	6,906	2.96
Mkt. yr.	426	9,293	10	9,729	1,670	5,200	1,900	8,770	959	2.55-2.85
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	2.36
Dec-Feb	301	---	0	301	1	71	67	139	163	3.25
Mar-May	163	---	0	163	1	55	36	92	70	3.94
Jun-Aug	70	---	0	70	1	10	41	52	18	3.63
Mkt. yr.	72	460	0	532	4	312	198	514	18	3.19
1996/97										
Sep-Nov	18	803	0	821	1	304	56	361	460	2.50
Mkt. yr.	18	803	0	821	4	525	225	754	67	2.20-2.50

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										
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										
Jun-Aug	100	397	9	505	42	140	7	190	316	3.18
Sep-Nov	316	---	8	324	38	26	12	76	248	2.73
Mkt. yr.	100	397	40	536	166	235	35	436	100	2.70-2.80
OATS										
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	2.1	277	66	1.68
1996/97										
Jun-Aug	66	155	6	228	31	63	1.0	95	133	2.08
Sep-Nov	133	---	39	172	29	14	0.8	43	129	1.83
Mkt. yr.	66	155	100	322	120	120	3.0	243	79	1.85-1.95

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	
1994/95									
Sep-Nov	51.3	5.3	0.7	0.6	57.9	-0.8	57.1		
Dec-Feb	38.0	2.0	1.2	0.6	41.8	0.7	42.5		
Mar-May	29.6	1.7	0.6	0.5	32.4	-0.8	31.6		
Jun-Aug	21.7	1.1	2.5	1.2	26.4	8.3	34.7		
Mkt. yr.	140.6	10.2	4.91	2.8	158.5	7.4	166.0	84.3	1.97
% Change	17.8	-12.4	-19.4	-15.8	12.9	-22.4	10.6	0.4	10.2
1995/96									
Sep-Nov	44.7	4.5	0.7	0.4	50.2	-2.7	47.5		
Dec-Feb	34.3	1.8	0.4	0.5	37.1	0.3	37.4		
Mar-May	27.1	1.4	0.5	0.3	29.3	-1.8	27.5		
Jun-Aug	13.5	0.2	3.0	0.9	17.8	10.4	28.1		
Mkt. yr.	119.7	7.9	4.6	2.1	134.4	6.2	140.6	85.2	1.65
% Change	-14.9	-22.0	-5.9	-24.6	-15.3	-16.5	-15.3	1.1	-16.2
1996/97									
Sep-Nov	49.4	7.7	0.6	0.3	58.0	-2.1	55.9		
Mkt. yr.	132.1	13.3	4.1	2.2	151.8	6.6	158.4	86.0	1.84
% Change	10.4	68.4	-10.3	3.3	13.0	7.0	12.7	0.8	11.8

Table 3--Grain shipments and rates

	1994/95		-----1995/96-----		-----1996/97--	
	Mkt. Yr.	Mkt. Yr.	Sept-Dec	Dec	Sept-Dec	Dec
Barge shipments 1/ (Million ton/month)	3.1	4/ 3.7	4.2	3.8	NA	NA
Barge rate index 2/ (Dec 1990 = 100)	160.8	151.8	196.6	180.1	128.7	109.0
Railcar loadings 3/ (1,000 cars/week)	28.5	28.2	29.4	27.3	23.6	23.8
Rail rate index 2/ (Dec 1984 = 100)	116.6	117.3	117.5	118.1	119.7	119.7

- 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/	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
92/93	2.12	2.46	4.06	4.27	2.11	2.37	1.58
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
Monthly:							
1995:							
Sep	2.82	3.32	5.84	5.78	2.06	3.58	2.04
Oct	3.12	3.57	6.15	6.22	2.58	3.69	2.11
Nov	3.23	3.63	6.26	6.38	2.98	4.02	2.63
Dec	3.36	3.76	6.55	6.93	2.92	3.98	2.50
1996:							
Sep	3.39	3.69	6.30	5.89	2.34	3.15	2.08
Oct	2.81	3.27	5.08	5.34	2.10	NQ	2.06
Nov	2.63	2.97	4.66	4.76	1.90	NQ	1.87
Dec	2.62	2.97	4.59	4.77	1.96	NQ	1.86
1/ Marketing year beginning September 1.					NQ = No quote.		
2/ Marketing year beginning June 1.							

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/
Mkt. yr.	\$/ton							
92/93	180.80	159.22	95.95	284.60	220.93	122.84	69.69	78.20
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	88.20
Monthly:								
1995:								
Sep	171.75	137.60	81.60	250.00	166.70	112.00	88.10	85.40
Oct	183.40	153.25	98.40	290.50	221.00	121.70	93.40	85.80
Nov	194.10	165.00	118.60	326.90	226.60	142.60	111.00	85.00
Dec	213.60	185.80	119.10	331.90	228.80	146.50	126.60	84.60
1996:								
Sep	265.50	193.10	115.75	329.40	279.80	164.00	115.40	95.70
Oct	238.00	183.25	102.30	344.00	272.10	160.80	103.20	98.20
Nov	242.70	196.60	97.50	340.00	261.70	145.00	100.70	100.00
Dec	240.90	224.50	99.50	342.50	272.00	143.10	113.00	102.00
1/ Marketing year beginning September 1.								
2/ Marketing year beginning May 1.								
3/ Includes monthly & marketing year revisions from 1994/95.								

Table 6--Corn: Food, and industrial uses

Year	Glucose and dex.		Starch	---Alcohol---		Cereals & other products	Total F&I
	HFCS			Fuel	Bev. & Mfg		
Million bushels							
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	27.9	29.1	405.5
Mar-May	123.8	58.4	56.2	137.7	24.2	29.7	430.1
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	54.9	91.8	25.0	29.7	393.1
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							
Sep-Nov	115.1	57.4	55.0	100.7	27.4	29.9	385.5
Mkt year	515.0	240.0	225.0	440.0	110.0	120.0	1650.0

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

	Corn meal, yellow, New York	Brewers' grits, Chicago	Sugar, dextrose, Midwest	HFCS, 42% tank cars, Midwest	Corn starch, fob Midwest 3/
	\$/cwt	\$/cwt	cents/lb	cents/lb	\$/cwt
Mkt. yr. 1/					
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
Monthly					
1995/96:					
Oct	14.76	12.23	25.50	12.55	13.94
Nov	14.87	12.34	25.50	13.30	14.36
Dec	15.15	12.62	25.50	13.30	14.42
Jan	17.01	12.91	25.50	13.15	14.57
1996/97:					
Oct	17.19	13.11	25.50	13.15	15.41
Nov	16.78	12.70	25.50	13.15	13.58
Dec	16.18	12.08	25.50	13.15	12.95
Jan 2/	16.32	12.22	25.50	13.15	12.89

1/ Marketing year beginning September 1.

2/ Preliminary.

3/ Bulk-industrial, unmodified.

