FEED OUTLOOK

United States Department of Agriculture — FDS-1199 — Economic Research Service

Approved by the World Agricultural Outlook Board — November 15, 1999

HIGHLIGHTS

- Feed Grain Production Increased from Last Month, Ending Stocks Up
- 1999 Corn Production Increased from Last Month, Prices Weaker
- Sorghum Production Raised from Last Month, Barley and Oats Lowered
- World Coarse Grain Production, Use, and Stocks Up This Month

FEED GRAIN SUPPLY INCREASES FROM LAST MONTH

U.S. feed grain production in 1999 is forecast at 266 million metric tons, up 1 percent from a month ago but down 2 percent from 1998. Corn and sorghum production were up this month, but barley and oats were down. Feed grain supply in 1999/2000 is forecast at 319.8 million tons, up 1 percent from last month, and up nearly 2 percent from 1998/99. Supplies are up from last year because of larger beginning stocks.

Year-over-year increases in supply will exceed a slight increase in use in 1999/2000. Total feed grain use is projected at 262 million tons, unchanged from last month and up 1.5 million from 1998/99.

On a September-August marketing year, feed and residual use for the four feed grains plus wheat in 1999/2000 is unchanged from last month and up 2 percent from last year. The projected index of grain consuming animal units (GCAUs) for 1999/2000 is 89.4 million units, up 1 percent from last month and 1998/99. Feed and residual used per GCAU in 1999/2000 is 1.81 tons, up 1 percent from 1998/99. In the index components for 1999/2000, GCAUs for dairy and hogs are down and those for cattle and poultry are up. Increased cattle on feed on October 1, 1999, raised forecast GCAUs for 1999/2000.

CORN PRODUCTION FORECAST RAISED FROM LAST MONTH

Corn production in 1999 is forecast at 9,537 million bushels, up 70 million from last month and down 2 percent from 1998. The average corn yield is forecast at 134.5 bushels per acre, compared with last month's 133.5 bushels and the actual 1998 yield of 134.4 bushels. This would be the second highest yield ever, trailing only the 138.6 bushels per acre in 1994. The yield increase resulted from increases in 11 States.

Forecast ending stocks in 1999/2000 are 2,039 million bushels, up 4 percent from last month and the highest since 1992/93. Corn use in 1999/2000 is unchanged from last month. With increased corn supplies in 1999/2000 leading to higher ending stocks, prices are lower. The forecast price for 1999/2000 is $1.60-$2.00 per bushel, down from last month's $1.65-$2.05. In 1998/99, the season-average price received by farmers is expected to be $1.95.

SORGHUM CROP INCREASED THIS MONTH

Sorghum production in 1999 is forecast at 596 million bushels, up 3 percent from last month because of higher yields. Production is up 15 percent from 1998's 520 million bushels. Yields are forecast at 70.1 bushels per acre, up 1.8 bushels from last month and 2.8 bushels above last year. Record yields are expected in Arkansas, Georgia, Louisiana, Mississippi, and Texas.

With larger supplies this month and use unchanged, ending stocks in 1999/2000 increased to the highest since 1992/93. The forecast season-average price for sorghum was lowered 5 cents on each end of the range in line with the corn price. In the 1998/99 marketing year, prices received by farmers for sorghum averaged 87 percent of the corn price. The midpoint of the 1999/2000 sorghum prices is 86 percent of the midpoint of the expected corn price. The estimated price for 1998/99 is $1.70 per bushel, which would be 87 percent of the estimated corn price.

BARLEY PRODUCTION DECREASES

Barley production for 1999 is estimated at 282 million bushels, down 2 million this month, and 20 percent below 1998. Yields averaged 59.2 bushels per acre, down 1 percent from last year. Since the harvest was late in North Dakota and Montana, a special survey was taken this year for these States and resulted in reduced barley area and yields.

OATS PRODUCTION FORECAST SLIPS

The resurvey of North Dakota and Montana also led to changes in the oats crop. The 1999 oats crop is forecast at 147 million bushels, down 1 million from the September 30 forecast, and down 19 million from 1998. This is the lowest production since records were first kept in 1866. The forecast yield is down 0.5 bushels from last year's 60.2 bushels per acre. Estimated total use is unchanged from last month, and the smaller supplies will result in lower ending stocks. Prices received by farmers in 1999/2000 are expected to average between $1.05 and $1.15 per bushel, up from $1.00 to $1.10 last month. Prices for 1998/99 were $1.10 per bushel.

INCREASED BARLEY PRODUCTION BOOSTS WORLD COARSE GRAIN STOCKS

Forecast 1999/2000 world coarse grain production, consumption, exports, and ending stocks increased slightly this month. Global production is forecast to reach 876 million tons, up 6 million this month. Foreign production is up 4 million tons, mostly barley in the former Soviet Union, Eastern Europe, and Canada. Now that harvest is mostly complete, government reports indicate that production in these countries was larger than expected. World sorghum production also increased with larger estimates for Mexico and the United States.

In the former Soviet Union and Eastern Europe, barley consumption and ending stocks forecasts increased this month, with ending stocks in the former Soviet Union forecast to be almost double those of a month earlier. This month Kazakstan, Canada, and Romania are expected to have larger barley exports, boosting world trade to near last year's 17 million tons. Israel is expected to boost barley imports because of strong feed demand. China's barley imports also increased because of growing demand for malting barley.

Foreign corn supply and demand changes were mostly offsetting. Larger forecast imports by Russia, based on larger U.S. concessional sales, are mostly offset by reduced expectations for Mexico. Increased Mexican sorghum production and low prices received by corn producers reduced corn imports.

U.S. 1998/99 SORGHUM EXPORTS UP

Based on stronger-than-expected late season shipments to Mexico, U.S. 1998/99 (October/September) sorghum exports were revised up 150,000 tons to 5.15 million. This puts U.S. sorghum exports at nearly the same level for the last 3 years. On the same international coarse grain marketing year, U.S. barley exports were estimated unchanged this month at 575,000 tons, but imports were reduced by 75,000 tons to 625,000 because of the reduced pace of imports from Canada. This leaves the United States a small net importer of barley in 1998/99.

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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
CORN	Million bushels									$/bu
1996/97										
Sep-Nov	426	9,233	3	9,662	383	1,890	487	2,759	6,903	2.87
Dec-Feb	6,903	---	2	6,905	394	1,492	525	2,411	4,494	2.66
Mar-May	4,494	---	4	4,498	465	1,103	433	2,001	2,497	2.77
Jun-Aug	2,497	---	4	2,500	450	814	353	1,617	883	2.49
Mkt. yr.	426	9,233	13	9,672	1,692	5,299	1,797	8,789	883	2.71
1997/98										
Sep-Nov	883	9,207	2	10,092	429	2,036	380	2,845	7,247	2.53
Dec-Feb	7,247	---	1	7,248	418	1,510	380	2,308	4,940	2.55
Mar-May	4,940	---	4	4,944	464	1,089	350	1,904	3,040	2.45
Jun-Aug	3,040	---	2	3,042	470	870	394	1,734	1,308	2.12
Mkt. yr.	883	9,207	9	10,099	1,782	5,505	1,504	8,791	1,308	2.43
1998/99										
Sep-Nov	1,308	9,761	4	11,073	444	2,127	450	3,021	8,052	1.90
Dec-Feb	8,052	---	6	8,058	427	1,467	465	2,359	5,698	2.04
Mar-May	5,698	---	7	5,706	489	1,103	497	2,089	3,616	2.04
Jun-Aug	3,616	---	2	3,618	462	791	568	1,822	1,796	1.84
Mkt. yr.	1,308	9,761	19	11,088	1,822	5,489	1,981	9,291	1,796	1.95
1999/00										
Mkt. yr.	1,796	9,537	10	11,344	1,880	5,500	1,925	9,305	2,039	1.60-2.00
SORGHUM										
1996/97										
Sep-Nov	18	795	0	814	15	276	56	346	467	2.45
Dec-Feb	467	---	0	467	15	119	59	193	274	2.26
Mar-May	274	---	0	274	10	85	61	155	119	2.41
Jun-Aug	119	---	0	119	6	37	29	72	47	2.27
Mkt. yr.	18	795	0	814	45	516	205	766	47	2.34
1997/98										
Sep-Nov	47	634	0	681	18	239	49	307	374	2.26
Dec-Feb	374	---	0	374	18	38	83	139	235	2.24
Mar-May	235	---	0	235	12	71	55	139	96	2.16
Jun-Aug	96	---	0	96	6	17	24	47	49	2.08
Mkt. yr.	47	634	0	681	55	365	212	632	49	2.21
1998/99										
Sep-Nov	49	520	0	569	15	178	41	234	335	1.68
Dec-Feb	335	---	0	335	15	34	64	113	222	1.70
Mar-May	222	---	0	222	10	45	51	106	116	1.72
Jun-Aug	116	---	0	116	6	5	41	51	65	1.61
Mkt. yr.	49	520	0	569	45	262	197	504	65	1.70
1999/00										
Mkt. yr.	65	596	0	661	55	325	200	580	81	1.35-1.75

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
BARLEY	Million bushels									$/bu
1996/97										
Jun-Aug	100	392	9	501	44	136	7	187	314	3.11
Sep-Nov	314	---	8	322	39	25	12	76	246	2.74
Dec-Feb	246	---	8	254	37	38	7	82	173	2.55
Mar-May	173	---	11	184	53	18	4	75	109	2.33
Mkt. yr.	100	392	37	529	172	217	31	419	109	2.74
1997/98										
Jun-Aug	109	360	12	482	44	87	24	155	327	2.31
Sep-Nov	327	---	7	334	39	12	39	90	244	2.45
Dec-Feb	244	---	8	252	37	29	6	72	180	2.42
Mar-May	180	---	13	193	53	16	5	74	119	2.26
Mkt. yr.	109	360	40	510	172	144	74	390	119	2.38
1998/99										
Jun-Aug	119	352	7	479	44	101	8	152	326	2.02
Sep-Nov	326	---	7	333	39	16	8	63	271	1.97
Dec-Feb	271	---	6	277	37	32	7	76	201	1.90
Mar-May	201	---	9	210	51	12	5	68	142	1.84
Mkt. yr.	119	352	30	501	170	161	28	360	142	1.98
1999/00										
Jun-Aug	142	282	6	429	44	81	9	134	295	2.00
Mkt. yr.	142	282	30	454	172	125	30	327	127	1.80-2.20
OATS										
1996/97										
Jun-Aug	66	153	6	226	24	69	1.0	94	132	2.08
Sep-Nov	132	---	39	171	22	22	0.8	45	126	1.84
Dec-Feb	126	---	28	154	20	37	0.3	58	96	1.79
Mar-May	96	---	24	120	28	25	0.4	53	67	1.88
Mkt. yr.	66	153	97	317	95	153	2.5	250	67	1.96
1997/98										
Jun-Aug	67	167	19	253	24	74	0.4	98	155	1.62
Sep-Nov	155	---	38	193	22	26	0.7	49	144	1.54
Dec-Feb	144	---	26	170	21	38	0.5	59	111	1.59
Mar-May	111	---	15	127	28	24	0.5	53	74	1.60
Mkt. yr.	67	167	98	332	95	161	2.1	258	74	1.60
1998/99										
Jun-Aug	74	166	28	268	24	82	0.5	106	162	1.15
Sep-Nov	162	---	36	198	22	32	0.4	54	143	1.08
Dec-Feb	143	---	22	166	21	32	0.5	53	113	1.20
Mar-May	113	---	22	134	28	25	0.3	53	81	1.23
Mkt. yr.	74	166	108	348	95	170	1.7	266	81	1.10
1999/00										
Jun-Aug	81	147	22	250	24	78	0.6	102	147	1.10
Mkt. yr.	81	147	100	328	96	165	2.0	263	65	1.05-1.15

Totals may not add due to rounding.
1/ Corn and sorghum are on a September 1 to August 31 marketing year.
Barley and oats are on a June 1 to May 31 marketing year.

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

Year Beginning September 1	Corn	Sorg.	Barley	Oats	Feed Grains	Wheat	Total grains	Animal Units	Feed/ animal unit
	Million metric tons							Mil.	Tons
1996/97									
Sep-Nov	48.0	7.0	0.5	0.4	56.0	-2.1	53.9		
Dec-Feb	37.9	3.0	0.8	0.6	42.4	0.8	43.2		
Mar-May	28.0	2.1	0.4	0.4	31.0	-0.7	30.3		
Jun-Aug	20.7	0.9	1.9	1.1	24.6	9.6	34.2		
Mkt. yr.	134.6	13.1	3.6	2.6	154.0	7.7	161.6	85.3	1.89
% Change	12.6	74.8	-17.9	1.3	14.8	24.8	15.3	0.4	14.8
1997/98									
Sep-Nov	51.7	6.1	0.3	0.5	58.5	-3.1	55.5		
Dec-Feb	38.3	1.0	0.6	0.6	40.6	0.0	40.6		
Mar-May	27.7	1.8	0.3	0.4	30.2	0.3	30.5		
Jun-Aug	22.1	0.4	2.2	1.3	26.0	11.6	37.6		
Mkt. yr.	139.8	9.3	3.4	2.8	155.3	8.8	164.1	87.9	1.87
% Change	3.9	-29.3	-5.6	7.3	0.9	14.5	1.5	3.1	-1.5
1998/99									
Sep-Nov	54.0	4.5	0.3	0.6	59.4	-2.0	57.4		
Dec-Feb	37.3	0.9	0.7	0.5	39.4	0.4	39.7		
Mar-May	28.0	1.2	0.3	0.4	29.9	1.0	30.9		
Jun-Aug	20.1	0.1	1.8	1.2	23.2	7.6	30.7		
Mkt. yr.	139.4	6.7	3.1	2.7	151.8	6.9	158.8	88.5	1.79
% Change	-0.3	-28.1	-10.3	-3.6	-2.2	-21.3	-3.3	0.7	-3.9
1999/00									
Mkt. yr.	139.7	8.3	2.8	2.7	153.4	8.1	161.5	89.4	0.15
% Change	0.2	23.9	-9.1	1.6	1.0	16.8	1.7	1.0	-91.6

Table 3--Cash feed grain prices

	Corn, No. 2, Yel, Ctrl. IL 1/	Corn, No. 2, Yel, Gulf ports 1/	Sorghum, No. 2, Yel Texas South Panhandle 1/	Sorghum, No. 2, Yel, Gulf ports 1/	Barley, No. 2, feed, Duluth 2/	Barley, No. 3 or better, Malting, Minn. 2/	Oats, No. 2, Heavy white, Minn. 2/
Mkt. yr.	$/bu	$/bu	$/cwt	$/cwt	$/bu	$/bu	$/bu
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
98/99 3/	1.97	2.35	3.78	3.97	1.23	2.30	1.34
Monthly:							
1998:							
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
Sep	1.78	2.18	3.83	3.84	NQ	NQ	1.30
1999:							
Jun	1.99	2.36	3.61	3.86	NQ	NQ	1.34
Jul	1.67	2.12	3.40	3.46	NQ	NQ	1.25
Aug	1.84	2.20	3.59	3.77	NQ	NQ	1.20
Sep	1.81	2.21	3.39	3.64	NQ	NQ	1.17

1/ Marketing year beginning September 1.
2/ Marketing year beginning June 1. 3/ Preliminary. NQ = No quote.

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

	Soybean meal 44% slv. Decatur, IL 1/	Cotton-seed meal, 41% slv. Memphis 1/	Corn gluten feed, IL pts. 1/	Corn gluten meal, IL pts. 1/	Meat & bone meal, Central U.S. 1/	Dists.' dried grains, Lawrence-burg, IN 1/	Wheat midlgs, Kansas City 1/	Alfalfa farm price 2/
	$/ton							
Mkt. yr.								
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
98/99 3/	130.56	109.86	59.87	234.72	137.32	85.77	54.74	91.00
Monthly:								
1998:								
Jun	157.80	126.00	61.90	225.60	161.80	81.00	57.90	96.50
Jul	173.30	145.60	58.75	252.50	171.25	86.00	67.84	93.40
Aug	135.70	130.30	57.50	245.00	156.80	86.00	53.40	90.20
Sep	126.90	115.60	51.50	210.00	133.40	NQ	43.90	87.10
1999:								
Jun	131.70	114.50	57.90	209.50	137.10	87.00	45.70	85.00
Jul	125.71	115.00	51.75	241.25	133.75	91.67	39.20	82.00
Aug	135.90	100.65	54.30	252.50	139.61	NQ	44.91	81.50
Sep	144.06	111.92	55.50	258.13	142.21	88.00	44.91	77.30

1/ Marketing year beginning September 1.
2/ Marketing year beginning May 1. 3/ preliminary. NQ=No quote.

Table 5--Corn: Food, and industrial uses

Year	HFCS	Glucose and dex.	Starch	Alcohol: Fuel	Alcohol: Bev. & Mfg	Cereals & other products	Total F&I
	Million bushels						
1996/97							
Sep-Nov	113.2	60.0	55.0	91.9	29.0	33.6	382.6
Dec-Feb	110.7	56.3	55.1	106.2	33.0	33.2	394.4
Mar-May	134.8	64.0	59.5	119.2	34.0	33.9	445.4
Jun-Aug	145.1	65.5	59.1	111.4	34.0	33.9	449.0
Mkt year	503.8	245.8	228.6	428.7	130.0	134.6	1,671.5
1997/98							
Sep-Nov	122.8	63.4	59.6	116.1	33.2	34.0	429.1
Dec-Feb	116.8	56.2	56.7	122.2	32.8	33.6	418.3
Mar-May	139.4	60.7	58.3	118.3	33.5	34.4	444.5
Jun-Aug	153.4	64.7	58.9	124.6	33.5	34.4	469.4
Mkt year	532.3	244.9	233.5	481.1	133.0	136.5	1,761.2
1998/99							
Sep-Nov	127.6	60.5	57.8	132.4	31.1	34.5	443.8
Dec-Feb	120.8	52.0	54.7	132.9	32.6	34.1	427.1
Mar-May	145.4	60.0	57.1	138.8	34.1	34.8	470.1
Jun-Aug	155.4	61.6	58.2	121.8	29.4	34.8	461.2
Mkt year	549.3	234.1	227.8	525.8	127.1	138.2	1,802.2
1999/00							
Mkt year	565.0	240.0	235.0	550.0	129.9	140.0	1,859.9

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

	Corn meal, yellow, New York	Brewers' grits, Chicago	Sugar, destrose, Midwest	HFCS, 42% tank cars, Midwest	Corn starch, fob Midwest 3/ 4/
	$/cwt	$/cwt	cents/lb	cents/lb	$/cwt
Mkt. yr. 1/					
95/96	17.79	14.21	25.50	13.01	15.98
96/97	16.94	12.85	25.50	13.15	13.83
97/98	15.94	11.85	28.08	7.77	13.55
98/99 2/	15.06	11.00	24.24	8.04	12.28
Monthly					
1998:					
Jul	15.27	11.27	30.65	7.05	12.88
Aug	14.62	10.52	30.65	7.05	12.67
Sep	14.58	10.48	30.65	7.14	11.92
Oct	14.89	10.99	30.65	7.40	11.71
1999:					
Jul	14.72	10.62	16.38	8.45	12.73
Aug	15.12	11.27	16.38	8.45	11.74
Sep	15.28	11.18	16.38	8.45	12.01
Oct 2/	14.89	10.75	16.38	9.25	11.89

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

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

Country/region	1997/98 Mkt. yr.	1997/98 Jun - Aug	1998/99 Mkt. yr.	1998/99 Jun - Aug	1999/2000 Jun - Aug
	Thousand tons				
OATS					
Canada	1,282	281	1,142	241	273
Finland	161	25	216	54	24
Sweden	176	22	443	182	79
Total 1/	1,696	328	1,856	477	376
BARLEY, MALTING					
Canada	733	221	567	103	120
Total 1/	733	221	567	103	120
BARLEY, OTHER 2/					
Canada	112	49	81	54	6
Total 1/	143	49	81	54	6

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

Source: Bureau of the Census

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

Country/region	1996/97 Sep-Aug		1997/98 Sep-Aug		1998/99 Sep-Aug
CORN					
Japan	14,821		14,581		15,110
Taiwan	5,482		3,801		4,365
Former USSR	184		23		405
South Africa	81		0		143
Sub-Saharan Africa	272		336		298
EU	1,704		147		192
Egypt	2,292		1,808		3,159
Canada	833		1,423		867
China	53		212		204
East Europe	385		19		12
Algeria	869		861		955
S. Korea	5,369		3,593		6,462
Mexico	3,155		4,116		5,387
Others	10,081		7,196		12,668
Total	45,581		38,117		50,228
SORGHUM					
Mexico	2,111		3,222		3,103
Japan	2,102		1,650		1,362
Others	948		463		433
Total	5,161		5,334		4,899
	1997/98 Mkt. yr.	1997/98 Jun-Aug	1998/99 Mkt. yr.	1998/99 Jun-Aug	1999/2000 Jun-Aug
BARLEY					
Saudi Arabia	922	346	0	0	0
Israel	0	0	0	0	0
Jordan	53	0	0	0	0
Japan	290	88	422	134	123
Mexico	124	32	94	27	23
Taiwan	94	8	0	0	0
Other	135	57	99	8	51
Total	1,617	530	615	169	198

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