FEED OUTLOOK

United States Department of Agriculture



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Approved by the World Agricultural Outlook Board

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HIGHLIGHTS

- o Total Feed Grain Ending Stocks Increased from Last Month
- o Feed and Residual Use Up from Last Year
- o U.S. Export Prospects Reduced by Increased Competition from China
- o World Coarse Grain Trade and Consumption Up, Stocks Down

FEED GRAIN ENDING STOCKS INCREASED FROM LAST MONTH

U.S. feed grain ending stocks in 1999/2000 are forecast at 49.4 million metric tons, up 1 percent from a month ago but down 4 percent from 1998/99. Reduced exports of corn and a small decline in feed and residual use of sorghum this month caused this increase. Total feed grain use is projected at 267.7 million tons, down 0.6 million tons from last month and up 3 percent from 1998/99.

FEED AND RESIDUAL USE UP FROM LAST YEAR

On a September-August marketing year, feed and residual use for the four feed grains plus wheat in 1999/2000 is up 0.3 million metric tons from last month and 5.2 percent from last year. The projected index of grain consuming animal units (GCAUs) for 1999/2000 is 90 million units, up 1.6 percent from 1998/99. Feed and residual used per GCAU in 1999/2000 is forecast at 1.86 tons, up 3.6 percent from 1998/99, and nearly the same as the 1.87 tons used in 1997/98. In the index components for 1999/2000, GCAUs for hogs are down and those for dairy, beef, and poultry are up.

The January 1, 2000, cattle inventory was down 1 percent from the 99.1 million head on January 1, 1999. However, all cattle and calves on feed were up 6 percent from last year. Helping to explains some of the increase in cattle on feed, the calf crop in 1998 was revised up 230,000 head, while the 1999 calf crop was raised 410,000 head from the midyear estimate. In calendar 2000, beef production is estimated at 25.7 billion pounds, up 3 percent from last month, but down 3 percent from 1999. With more cattle on feed, and beef production expected to increase, feed needs will remain strong.

Production of broilers, turkeys, and eggs in 2000 is expected to increase from anticipated 1999 levels and maintain strong demand for feed grains. Broiler production is expected to increase 5 percent as producers respond to good export and domestic demand. Turkey producers are expected to increase production 2 percent. Egg producers are expected to produce 7.08 billion dozen eggs, up 2 percent from 1999.

Pork production in 2000 is expected to decline 4 percent from last year, and is up 25 million pounds from last month's estimate. In early December, hog farmers indicated they intended to decrease the number of sows farrowing in December 1999-May 2000 by 4 percent relative to the prior year. If producers carry through with these reported intentions, feed needs by the pork sector are likely to be weaker in 1999/2000.

Dairy cow numbers on January 1 were up 1 from the previous year, and with increased production per cow, milk production in 2000 is expected to total 165.5 billion pounds, up from 162.7 billion in 1999. Thus with increased milk production per cow, feed use by the dairy industry will continue strong.

CORN STOCKS PROJECTED AT 1,739 MILLION BUSHELS

Because of lower export prospects, the corn export forecast was decreased 25 million bushels this month to 1,950 million, down 2 percent from last year. No other changes were made in corn supplies or use, resulting in an increase in ending stocks. Ending stocks of corn in 1999/2000 are projected to increase 1 percent from last month but decline 3 percent from last year.

SORGHUM EXPORTS INCREASE

Sorghum exports for 1999/2000 were increased this month because of continued strong exports to Mexico. Projected exports were raised 15 million bushels, up 14 percent from 1998/99. Feed and residual was lowered a corresponding 15 million bushels, and with no change in food, seed, and industrial uses, ending stocks were unchanged. Even with the decrease this month, feed and residual in 1999/2000 is forecast up 24 percent from last year.

HAY STOCKS PER RCAU DECREASE, PRICES WEAK

As reported last month, hay stocks on December 1 were down 3 percent from a year earlier. In addition, the annual cattle and calves inventory was released since the last report. All cattle and calves numbers on January 1, 2000, were down 1 percent from last year. Recalculated roughage consuming animal units (RCAU's) in 1999/2000 are estimated to be down 2 percent from 1998/99. Hay stocks are 1.48 tons per RCAU, down from 1.5 last year, when stocks per RCAU were 9 percent above the prior year.

Midmonth prices for all hay reported by farmers in January 2000 were \$71.80 per ton, up from \$71.10 in December, and down from \$78.50 in January 1999. Prices had been weakening relative to a year earlier, even with the drought in parts of the Great Plains. Prices received for alfalfa hay in January were \$74.10 per ton, up from \$73.20 in December but down from \$81.40 a year earlier. Other hay prices averaged \$7.76 per ton below a year earlier during May through January. In January the price of other hay was \$65.90 per ton, the same as in December, but down from \$70.60 a year earlier. Given current estimates of livestock numbers and hay stocks, prices may remain weak for the remainder of the hay marketing year.

PRICE EXPECTATIONS UNCHANGED FOR FEED GRAINS

The projected price range for corn is narrowed to \$1.75-2.05 per bushel. The sorghum price forecast was also narrowed this month to \$1.50-1.80 per bushel. Sorghum prices to date have averaged 85 percent of the corn price.

The all barley price is forecast at \$2.05-2.15 per bushel. In June 1999-January 2000, the simple average of barley farm prices was \$2.09 per bushel, up from \$1.99 in the same period a year earlier. Malting barley's premium over feed barley has remained wide, averaging 84 cents so far, compared with 83 cents for the same period a year earlier, and the 10-year weighted average of 56 cents. The oats price forecast was unchanged this month at \$1.05-

1.15 per bushel. Farm prices for oats in June 1999-January 2000 averaged \$1.11, down from \$1.16 for the same period in 1998/99.

LDPs SUPPORT FEED GRAIN FARMERS' INCOME

The 1996 Farm Act contained key policy tools to assist farmers when market prices are low. The key provisions are the "nonrecourse marketing assistance loans" and "loan deficiency payments" (LDPs). Producers that entered into Production Flexibility Contracts with USDA are eligible to participate in these programs.

As of February 14, 2000, eligible producers collected \$1,892 million in LDP's covering 6,808 million bushels of 1999-crop corn or about 72 percent of the 1999 crop. The average payment rate was 28 cents per bushel on 914,039 contracts. In 1998, 58 percent of the corn produced received an LDP.

Sorghum producers have collected \$145 million in LDPs on their 1999 crop, covering 474 million bushels or about 80 percent of the crop. The average payment rate was 31 cents per bushel on 116,682 contracts. In 1998, 67 percent of the sorghum crop received an LDP. For barley, producers have collected almost \$36 million in LDPs covering 194 million bushels or about 69 percent of the crop. The average payment rate was 18 cents per bushel on 39,306 contracts. In 1998, 73 percent of the barley crop received an LDP. Oats producers have collected \$27 million in LDPs covering 117 million bushels or about 80 percent of the 1999 crop. The average payment rate was 23 cents per bushel on 58,976 contracts. In 1998, 63 percent of the oats crop received an LDP.

U.S. EXPORT PROSPECTS REDUCED BY INCREASED COMPETITION FROM CHINA

Forecast U.S. October 1999-September 2000 corn exports were reduced by 1 million tons to 48 million, while exports by China were boosted 3 million to 8 million. China's export forecast increased because of stronger-than-expected sales and shipments. In December China exported 1.4 million tons of corn, and although that pace is not expected to continue, China reportedly has made large sales for shipment in coming months. China can easily increase corn exports because carryin stocks were huge and 1999 production, at 128 million tons, was 8 million tons larger than forecast consumption. Internal prices are still higher than world prices, so the exports require a government subsidy, but recent increases in U.S. corn prices have reduced the subsidy required. Even with sharply higher forecast exports this month, China's ending stocks are not expected to decline in 1999/2000.

According to *U.S. Export Sales*, U.S. corn shipments through February 3 (basically the first 5 months of the local September/August marketing year) were up 11 percent from a year earlier. However, exports in September 1999 were unusually large, so the increase for the October/September international marketing year is less. Moreover, as of early February outstanding sales were down 8 percent from a year earlier, foreshadowing a slowdown in U.S. export shipments in the latter half of 1999/2000. U.S. shipments to countries where China is most competitive, such as South Korea and Malaysia, are already down from a year ago.

WORLD COARSE GRAIN TRADE AND CONSUMPTION UP, STOCKS DOWN

China and U.S. corn export prospects in 1999/2000 are supported by increased import demand forecast this month. Global corn trade was boosted by 1.6 million tons, with stronger imports expected for Egypt, Taiwan, Philippines, and Russia, based on the strong pace of purchases. Moreover, South Korea's corn imports were boosted to a record 9 million tons, partly because of reduced imports of feed wheat, but also because feed demand has rebounded.

Forecast world trade for barley and sorghum also increased this month. The EU is expected to export barley at a record pace as drought in the Middle East has boosted demand for feed barley even though prices are significantly higher than for corn. U.S. sorghum shipments to Mexico have also exceeded expectations as the issuance of corn import licenses in calendar 2000 has been sluggish. Global 1999/2000 coarse grain trade is up 2 million tons this month to 98 million, the highest in a decade. Coarse grain trade in 1999/2000 is now also forecast 2 million tons higher than a year earlier.

Forecast 1999/2000 coarse grain consumption is up 3 million tons this month to 881 million, up 1 percent from the previous year. This global growth rate is less than the rate of population growth, but is a rebound from the drop estimated a year earlier, and in keeping with a gradual recovery in foreign macroeconomic growth.

With increased consumption and trade, world coarse grain ending stocks are forecast lower this month, at 148 million tons. The decline would have been larger, except that a historical revision of EU stocks increased both carryin and carryout stocks for the region by about 2 million tons. Although 1999/2000 global coarse grain stocks are forecast down 5 percent from last year, they remain well above the levels of the previous 5 years.

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The next Feed Outlook will be released March 14, 2000.

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

Qtr. s	stocks	Produc-	ports	3		resid.		disp.	stks.	Farm price
										\$/bu
Sep-Nov Dec-Feb 6 Mar-May 4 Jun-Aug 2	5,903 4,494	9,233	_	9,662 6,905 4,498 2,500	383 394 465 450	1,492 1,103	487 525 433 353	2,759 2,411 2,001 1,617		
Mkt. yr.	426	9,233	13	9,672	1,692	5,299	1,797	8,789	883	2.71
1997/98 Sep-Nov Dec-Feb 1 Mar-May 4 Jun-Aug 3	7,247 4,940	9,207	1 4	10,092 7,248 4,944 3,042	429 418 464 470	1,510 1,089	380 380 350 394	2,845 2,308 1,904 1,734	7,247 4,940 3,040 1,308	2.53 2.55 2.45 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 Dec-Feb 8 Mar-May 5 Jun-Aug 3	3,052 5,698	9,759 	6	11,071 8,058 5,706 3,618	444 427 489 462	1,467	450 465 497 568	3,019 2,359 2,089 1,831	8,052 5,698 3,616 1,787	1.90 2.04 2.04 1.84
Mkt. yr.1	1,308	9,759	19	11,085	1,822	5,496	1,981	9,298	1,787	1.94
1999/00 Sep-Nov 3	1,787	9,437	4	11,228	453	2,221	534	3,208	8,020	1.70
Mkt. yr.1	1,787	9,437	15	11,239	1,900	5,650	1,950	9,500	1,739	1.75-2.05
SORGHUM 1996/97 Sep-Nov	18	795	0	814	15	276	56	346	467	2.45
Dec-Feb Mar-May Jun-Aug	467 274 119	 	0 0 0	467 274 119	15 10 6	119 85 37	59 61 29	193 155 72	274 119 47	2.26 2.41 2.27
Mkt. yr.	18	795	0	814	45	516	205	766	47	2.34
1997/98 Sep-Nov Dec-Feb Mar-May Jun-Aug	47 374 235 96	634 	0 0 0	681 374 235 96	18 18 12 6	239 38 71 17	49 83 55 24	307 139 139 47	374 235 96 49	2.26 2.24 2.16 2.08
Mkt. yr.	47	634	0	681	55	365	212	632	49	2.21
1998/99 Sep-Nov Dec-Feb Mar-May Jun-Aug Mkt. yr.	49 335 222 116	520 520	0 0 0 0	569 335 222 116 569	15 15 10 6	178 34 45 5	41 64 51 41	234 113 106 51	335 222 116 65	1.68 1.70 1.72 1.61
1999/00 Sep-Nov	65	595	0	660	18	229	65	312	349	1.46
Mkt. yr.		595	0	660	55	325	225	605		1.50-1.80

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

Year/	Beg. 1	Produc-	- Im-	Supply	FSI	Feed &	Ex-	Total	End.	
BARLEY						bushels				
1997/98 Jun-Aug Sep-Nov Dec-Feb Mar-May	109 327 244 180	360 	12 7 8 13	482 334 252 193	44 39 37 53	12 29	24 39 6 5	155 90 72 74	327 244 180 119	2.31 2.45 2.42 2.26
Mkt. yr	. 109	360	40	510	172	144	74	390	119	2.38
1998/99 Jun-Aug Sep-Nov Dec-Feb Mar-May	119 326 271 201	352 	7 7 6 9	479 333 277 210	44 39 37 51	101 16 32 12	8 8 7 5	152 63 76 68	326 271 201 142	2.02 1.97 1.90 1.84
Mkt. yr	. 119	352	30	501	170	161	28	360	142	1.98
1999/00 Jun-Aug Sep-Nov	142 295	282	6 5	429 300	44 39		9 10	134 72	295 229	2.12 2.05
Mkt. yr	. 142	282	25	449	172	125	30	327	122	2.05-2.15
OATS										
1997/98 Jun-Aug Sep-Nov Dec-Feb Mar-May	67 155 144 111	167 	19 38 26 15	253 193 170 127	24 22 21 28	74 26 38 24	0.4 0.7 0.5 0.5	98 49 59 53	155 144 111 74	1.59
Mkt. yr	. 67	167	98	332	95	161	2.1	258	74	1.60
1998/99 Jun-Aug Sep-Nov Dec-Feb Mar-May	74 162 143 113	166 	28 36 22 22	268 198 166 134	24 22 21 28	82 32 32 25	0.5 0.4 0.5 0.3	106 54 53 53	162 143 113 81	1.15 1.08 1.20 1.23
Mkt. yr	. 74	166	108	348	95	170	1.7	266	81	1.10
1999/00 Jun-Aug Sep-Nov	81 148	146	22 34	249 182	24 23	77 23	0.6	101 46	148 136	1.06 1.08
Mkt. yr		146	100	328	96	150	2.0	248	80	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		Sorg.	Barley	Oats	Grains	Wheat	grains	Units	
			- Milli	on metri	lc tons				Tons
1997/98									
Sep-Nov					58.5				
Dec-Feb									
Mar-May									
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									
1998/99									
Sep-Nov	54.0	4.5	0.3	0.6	59.4	-2.0	57.4		
Dec-Feb									
Mar-May	28.0	1.2	0.3	0.4	29.9	0.9	30.8		
Jun-Aug	20.3	0.1	1.8	1.2	23.4	7.6	31.0		
Mkt. yr.	139.6	6.7	3.1	2.7	152.0	6.8	158.8	88.6	1.79
% Change	-0.2	-28.2	-10.5	-4.4	-2.1	-22.5	-3.2	0.7	-3.9
1999/00									
Sep-Nov	56.4	5.8	0.5	0.4	63.2	0.1	63.2		
Mkt. yr.	143 5	8 3	2.8	2 4	157 0	10 1	167 1	90 0	1.86
% Change									3.6

Table 3--Cash feed grain prices

	No. 2,	No. 2, Yel, Gulf	South Panhandle	No. 2, Yel, Gulf	No. 2, feed,	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 96/97 97/98 98/99 3/	3.91 2.74 2.45 1.97	4.30 3.07 2.78 2.35	7.30 5.02 4.72 3.78	7.19 5.03 4.76 3.97	2.67 2.32 1.90 1.23	3.69 3.18 2.50 2.30	2.28 2.03 1.70 1.34
Monthly: 1998: Sep Oct Nov Dec	1.78 1.94 2.09 2.08	2.18 2.43 2.47 2.42	4.81 4.91 4.91 4.82	3.84 4.00 4.15 4.12	NQ NQ NQ NO	NQ NQ NQ NO	1.30 1.29 1.32 1.31
1999: Sep Oct Nov Dec	1.81 1.72 1.82 1.84	2.21 2.17 2.17 2.21	3.39 3.30 3.33 3.36	3.64 3.55 3.59 3.66	NQ NQ NQ NQ	NQ NQ NQ NQ	1.17 1.20 1.20 1.28

^{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/	bone meal,	Dists.' dried grains, Lawrence- burg, IN 1/	Wheat midlgs, Kansas City	Alfalfa farm price 2/
261				\$/ton				
Mkt. yr 95/96 96/97 97/98 98/99	217.27 260.37 186.55 130.56	186.12 191.47 150.40 109.86	116.47 93.05 69.65 59.87	319.35 341.50 290.45 234.72	222.07 272.44 192.56 137.32	151.37 142.87 109.76 85.77	118.08 91.18 76.30 54.74	87.20 101.80 107.00 91.00
Monthly 1998:	:							
Sep Oct Nov Dec	126.90 129.40 139.30 139.60	115.60 106.50 107.90 119.75	51.50 56.90 66.10 74.40	210.00 227.50 313.10 291.50	133.40 141.30 154.00 151.20	NQ 75.00 74.00 78.00	43.90 49.00 60.00 68.10	87.10 86.90 84.40 81.40
1999: Sep Oct Nov Dec	144.06 147.19 148.10 145.40	111.92 111.83 112.00 124.20	55.50 58.38 62.80 59.00	258.13 265.00 250.00 234.40	142.21 150.17 159.72 156.70	88.00 88.00 88.00 88.00	57.64 54.83 52.90 62.80	77.30 76.00 77.30 73.20

^{1/} Marketing year beginning September 1.

Table 5--Corn: Food, and industrial uses

		Glucose and		Alcoh		Cereals & other	Total
Year	HFCS		Starch	Fuel		products	
			M	illion bus	shels		
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		60.7		118.3			
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		32.6	34.1	427.1
Mar-May		60.0	57.1		34.1		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							
Sep-Nov	133.7	60.6	60.4	131.7	31.9	34.8	453.2
Mkt year	575.0	240.0	240.0	555.0	130.5	140.0	1,880.5

^{2/} Marketing year beginning May 1. 3/ preliminary. NQ=No quote.

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

	Corn meal, yellow, New York	Brewers' grits, Chicago	Sugar, destrose, Midwest	•	Corn starch, fob Midwest 3/
Mkt. yr. 1/	\$/cwt	\$/cwt	cents/lb	cents/lb	\$/cwt
95/96 96/97 97/98 98/99 2/	17.79 16.94 15.94 15.06	14.21 12.85 11.85 11.00	25.50 25.50 28.08 24.24	13.01 13.15 7.77 8.04	15.98 13.83 13.55 12.28
Monthly 1998/99:					
Oct Nov Dec Jan	14.89 15.07 14.91 15.13	10.99 10.97 10.81 11.03	30.65 30.65 30.65 30.65	7.40 7.65 7.83 7.95	11.71 12.10 12.10 11.95
1999/2000:					
Oct Nov Dec Jan 2/	14.89 14.42 14.57 15.08	10.79 10.32 10.47 10.98	16.38 16.38 16.38 16.38	9.25 9.25 9.25 9.25	11.89 11.65 11.83 11.86

^{1/} Marketing year beginning September 1.

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

Country/region			19 Mkt. yr.		
OATS			 Thousand to	ns	
Canada	1,282	910	1,142	770	732
Finland	161	51	216	111	75
Sweden	176	22	443	212	154
Total 1/	1,696	983	1,856	1,094	961
BARLEY, MALTING					
Canada	733	362	567	247	225
Total 1/	733	362	567	247	225
BARLEY, OTHER 2/					
Canada	112	68	81	66	15
Total 1/	143	68	81	66	15

^{1/} Totals may not add due to rounding.

Source: Bureau of the Census

^{2/} Preliminary.

^{3/} Bulk-industrial, unmodified.

^{2/} Mainly consists of barley for feeding, and also includes seed barley.

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

Country/region			1 Mkt. yr.	998/99 SeptNov.	
CORN					
Japan	14,581	3,913	15,110	3,480	3,773
S. Korea	3,593	602	6,462	1,326	1,298
Mexico	4,116		5,387	1,281	1,248
Taiwan	3,801		4,365	1,118	1,386
Egypt	1,808	572	3,159	770	577
Colombia	1,175	290	1,512	360	462
Venezuela	655	178	1,288	289	221
Saudi Arabia	971	375	1,182	312	380
Algeria	861	263	955	231	244
Canada	1,423	385	867	251	310
Dominican Republic		147	777	132	214
Turkey	379	86	692	65	0
Peru	253	53	674	156	229
Morocco	350	83	592	75	76
Chile	147	72	486	167	194
Former USSR	23	22	405	0	83
China South Africa	212	0	204 143	154 0	58 111
Other Sub-Saharan	336	32	298	68	41
EU	147	3	192	129	2
East Europe	19	19	12	0	35
Others	2,623	732	5,464		2,588
Total	38,117	9,628	50,228	11,412	13,532
SORGHUM					
Mexico	3,222	473	3,103	573	1,215
Japan	1,650	700	1,362	380	370
Others	463	73	433	35	59
Total	5,334	1,246	4,899	988	1,645
		1997/98	1	998/99	1999/2000
	Mkt. yr.	Jun-Nov		Jun-Nov	
BARLEY					
Saudi Arabia	922	908	0	0	0
Israel	0	0	0		0
Jordan	53	53	0		0
Japan	290	211	422	237	267
Mexico	124	68	94		65
Taiwan	94	60	0	0	5
Other	135	76	99	64	70
Total	1,617	1376	615	351	407

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