



Grain Price OUTLOOK

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CORN: WILL ACREAGE REBOUND IN 2002

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Summary

The USDA's *Crop Production and Grain Stocks* reports released on January 11 reflected a smaller domestic supply of corn and a more rapid pace of domestic consumption. The relatively slow pace of exports continues to be the most negative part of the corn picture. Year ending stocks of U.S. corn will be smaller than stocks at the beginning of the year. U.S. corn acreage likely will increase in 2002 in response to lower costs of some inputs and the higher price of corn being reflected in new crop futures. The USDA's *Prospective Plantings* report, to be released on March 28, 2002 could be important for price direction.

Corn prices have been in a relatively narrow range so far in the 2001-02 marketing year. The average cash price in central Illinois reached a harvest low of \$1.795 on October 15 and traded to a high of \$2.00 on December 4. The average is currently near \$1.95. That narrow trading range is likely to persist through February, but prices are likely to become more volatile beginning in March. Planting time weather and acreage prospects will be the primary price movers. Historical price patterns suggest that May and June offer the best opportunity for higher cash prices.

Smaller Supplies Reported in January

The USDA's annual *Crop Production* report released on January 11, 2002 contained the final estimate of the size of the 2001 U.S. corn harvest. The crop was estimated at 9.507 billion bushels, 39 million below the November 2001 forecast (Table 1). The U.S. average yield was estimated at 138.2 bushels per acre, 0.2 bushels above the November forecast, 1.3 bushels above the revised estimate for the 2000 crop, and only 0.4 bushels below the 1994 record average yield (Table 2). The smaller crop estimate reflected a significant reduction in the estimate of 2001 corn acreage. Planted acreage of corn in 2001 totaled only 75.752 million acres, 3.8 million less than planted in 2000 and the smallest planted acreage since 1995, the last year for an acreage reduction program (Table 3). The reduction in corn acreage was fairly widespread, geographically, with only Indiana planting more corn than in 2000 (Table 4).

Corn acreage harvested for grain in 2001 totaled only 68.808 million, 3.932 million less than harvested in 2000 and the least since 1995. Harvested acreage of corn was 383,000 acres less than forecast in November. The largest decline, 150,000 acres, came in Nebraska.

Stocks of corn in the U.S. on December

1, 2001 were estimated at 8.264 billion bushels, 266 million less than stocks on the same date last year, but the second largest inventory for that date in 14 years (Table 5). The stocks figure implies that 3.144 billion bushels of U.S. corn were consumed during the first quarter of the 2001-02 marketing year, 40 million more than during the first quarter last year and only 38 million less than the record use of two years ago. The Census Bureau reports that 451 million bushels of corn were exported during the quarter, 55 million less than during the same quarter last year. The USDA estimates that 489 million bushels of corn were used for seed, food, and industrial purposes, 23 million more than during the same quarter last year. The increase is being led by ethanol production. Based on monthly ethanol production estimates from the Department of Energy, the USDA estimates that corn use for ethanol production totaled 165.5 million bushels in the first quarter of the marketing year, an increase of 16 percent from use during the same quarter last year.

Feed and residual use of corn during the first quarter of the marketing year totaled 2.204 billion bushels, 72 million more than during the same quarter last year and 15 million above the record use of two years ago. The estimate of feed and residual use during the first quarter of the 2000-01 marketing year was reduced by 62 million bushels as a result of the 53 million bushel reduction in the estimated size of the 2000 crop.

Domestic Use to Expand

Based on the rapid pace of domestic use of corn reported for the first quarter of the 2001-02 marketing year, the USDA increased the projection of domestic use

for the year. Food, seed, and industrial use of corn is now projected at 2.045 billion bushels, 15 million above the December projection and 78 million more than used last year. That projection is based on a 10 percent increase in expected production of fuel alcohol. Given the 16 percent increase in the first quarter, the projection may still be a little low. We are bumping that projection up to 2.05 billion bushels (Table 6). Feed and residual use of corn for the current marketing year is projected at 5.85 billion bushels, only 14 million bushels more than used last year, but 50 million more than projected last month. The increase in expected use reflects a modest increase in the number of grain consuming animal units (less dairy and beef, more poultry, and about the same amount of pork) and slightly less consumption of the other feed grains (sorghum, oats, and barley). The projection of 5.85 billion bushels implies that feed and residual use of corn during the last three quarters of the marketing year will be about 58 million bushels less than during the same three quarters last year, since use during the first quarter was up 72 million. The expected decline in number of cattle placed on feed is occurring. The most uncertainty centers around hog numbers over the next 7 months. We expect that feed and residual use could be slightly larger than the USDA projection.

Export Prospects

Corn exports during the first quarter of the 2001-02 marketing year were nearly 11 percent less than during the same quarter last year. Recently, the pace of exports has accelerated so that by January 17 the USDA's weekly export inspection report showed shipments lagging last year's

pace by only 8.6 percent. For the year, the USDA expects exports to reach 1.975 billion bushels, about 2 percent more than shipped last year. Shipments are lagging last year's pace to four of the five largest buyers of U.S. corn (Japan, South Korea, Egypt, and Mexico). Shipments to Taiwan are running at about the same pace as last year.

As of January 10, the U.S. had sold about 280 million bushels of corn which had not yet been shipped. These outstanding sales are about 46 million bushels larger than on the same date last year. The increase reflects outstanding sales of 35 million bushels to China, compared to no sales last year. To reach the USDA projection, shipments of U.S. corn will need to increase from the 33 million per week average experienced so far this year to just over 40 million per week. Shipments during the last 32 weeks of the year will need to be nearly 100 million bushels larger than during the same period last year. U.S. exports are expected to be boosted by less competition from China and Argentina over the next seven months. The nearly 160 million bushel reduction in the size of the Argentine corn crop is expected to lead to a 140 million bushel reduction in exports during the current marketing year. The biggest hurdle to increased U.S. exports is the general slow down in world corn trade, led by reduced imports by Japan. Still, exports may be slightly larger than the USDA projection.

Based on the current projections of use, year ending stocks of corn in the U.S. are projected at 1.511 billion bushels (Table 6), 35 million less than projected by the USDA.

2002 Production Prospects

U.S. stocks of corn are expected to be at a four year low by the end of the current marketing year. Stocks are expected to total only about 15.3 percent of total projected use for the year. On a world basis, corn inventories are also on the decline, primarily in China. Stocks of wheat and all coarse grains are also on the decline. This tightening of inventories has not yet forced any rationing of consumption, so that prices still remain low for corn and modest for wheat. However, the smaller inventories mean that the size of next year's crops takes on a little more importance.

U.S. corn acreage has fluctuated in a 4.4 million acre range under current policy that was implemented in 1996 (Table 3). Acreage in 2001 was at the low end of the range. Under the scenario of no increase in acreage, constant yields in 2002, and steady consumption during the 2002-03 marketing year, stocks of corn would be reduced to about 1.12 billion bushels by the end of the 2002-03 marketing year. Some increase in acreage is necessary in 2002 to offset some of the risk of below-average yields.

The decline in corn acres in 2001 came within the context of a general decline in cropland acres. The area planted to principal crops, other than hay, in 2001 was down by just over 7 million acres. Combined acreage of feed grains, wheat, and soybeans was down 6.7 million acres, led by declines in corn and wheat. Sorghum acreage was up about 1.06 million. Including the acreage of hay, harvested acreage of principal crops declined by 3.7 million (1.2 percent) in 2001. Acreage was down the most in Minnesota and North Dakota, perhaps reflecting prevented plantings due to adverse weather. Those two states

reduced corn plantings by a combined 600,000 acres.

With a normal planting season and reduced input costs, it seems likely that U.S. planted acreage of corn will increase in 2002. The increase may also be stimulated by somewhat higher prices being offered for the 2002 crop and by concerns that the CCC loan rate for soybeans could be lowered. Reduced acreage of winter wheat in the eastern corn belt and in Kansas also opens the door for increased acreage of spring planted crops. A rebound to 79 million acres of corn seems likely in 2002. With harvested acreage for grain at 72.1 million and an average yield of 139 bushels per acre, the 2002 crop would approach 10 billion bushels. The USDA's March 28 *Prospective Plantings* report will give the first indication of 2002 corn acreage.

Price Prospects

Corn prices have traded in a relatively narrow range so far in the 2001-02 marketing year, particularly since October 1, 2001. From October 1, 2001 through January 23, 2002, March 2002 corn futures had a closing range of about \$.20. The average cash price of corn in central Illinois was at \$2.03 on September 13, declined to a harvest low of \$1.795 on October 15, 2001, rebounded to \$2.00 on

December 4 and then traded in the \$1.90s through January 23. The average price from September 4 through January 23 was \$1.91, about \$.04 below the CCC loan rate. So far, prices have remained well above the extreme lows experienced during the previous four years. For the 1997-98 through 2000-01 marketing years, the lowest average cash price in central Illinois ranged from \$1.45 to \$1.665. The smaller harvest and prospects for reduced carryover stocks have been somewhat supportive to prices.

It is likely that prices will remain in a fairly narrow trading range for several more weeks. Typically, prices would be expected to become more volatile in the March through August period. The narrow trading range in cash prices, only \$.23 in central Illinois, so far this year would suggest that the most extreme prices have not yet been experienced. Over the past four seasons, the range in cash prices in central Illinois during the marketing year has been from \$.60 to \$1.10. That pattern is consistent with the pattern of the past thirty years. It is expected, that cash prices will establish a new marketing year high, a new low, or both, over the next several months. Higher prices would likely reflect concerns about growing season weather and/or a March *Prospective Plantings* report that showed intentions for only a modest increase in corn acreage in 2002. A new low price, if it occurs, would likely come in July or August on the basis of the prospects for a large harvest in 2002. For the year, corn prices are expected to average near \$2.00 per bushel, about \$.15 above the average of last year.

Marketing Strategies

For old crop corn, pricing decisions are partially a function of marketing loan decisions already made. For corn which is not under loan and for which the loan deficiency payment [LDP] has not been established, placing corn under loan may be a prudent strategy. With the cash price of corn currently very near the loan value, this is a low risk strategy, with only storage costs at risk. Holding the inventory outside of the loan is also low risk, since lower prices would be offset by a higher loan deficiency payment. The advantage of placing corn under loan is primarily cash flow.

For corn that is no longer eligible for marketing loan benefits (that is, LDP has already been established) there is some downside price risk. That risk may be acceptable over the next several weeks, until the weather and acreage picture becomes clearer. For those that are concerned about lower prices, buying put options on deferred futures may be a strategy to consider. With a relatively large carry in the market, deferred futures offer a good return on storage, while the put option would provide some protection from lower prices. A \$2.30 July put option with a \$.15 premium offers a minimum price of about \$1.95 to \$2.00 for corn delivered in June 2002. That is, the minimum price is about equal to the current price, so that only storage cost is at risk. The put option would allow the producer to participate in part of any price rally that took place before mid-June.

For new crop corn, the market is offering a price about \$.30 to \$.35 per bushel above the current price for old crop corn. That premium will not be maintained if a large crop materializes. December futures in the \$2.40 to \$2.50 range would offer an opportunity to start pricing that crop. Buying December put options might also be considered as a way to manage price risk. For those who are comfortable trading options, selling high strike price December call options could be added to the strategy. The call options would reduce the cost of establishing a minimum price, but would also establish a price cap.

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Table 1. United States Corn Production Estimates

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	million bushels																				
July	7,116	5,200													
August	7,735	8,315	5,237	7,668	8,266	8,316	7,231	4,479	7,348	7,850	7,418	8,762	7,423	9,214	8,122	8,695	9,276	9,592	9,561	10,369	9,266
September	7,940	8,319	4,390	7,552	8,469	8,268	7,141	4,462	7,321	8,118	7,295	8,770	7,229	9,257	7,832	8,804	9,268	9,738	9,381	10,362	9,238
October	8,081	8,315	4,259	7,498	8,603	8,220	7,139	4,553	7,449	8,022	7,479	8,938	6,962	9,602	7,541	9,012	9,312	9,743	9,467	10,192	9,430
November	8,097	8,330	4,121	7,527	8,717	8,223	7,166	4,671	7,590	7,935	7,479	9,329	6,503	10,010	7,374	9,265	9,359	9,836	9,537	10,054	9,546
January	8,201	8,397	4,204	7,656	8,865	8,253	7,064	4,921	7,527	7,933	7,474	9,479	6,344	10,103	7,374	9,293	9,366	9,761	9,437	9,968	9,507
FINAL	8,119	8,235	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	

Table 2. United States Corn Yield Estimates

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
	bushels per acre																											
July 1	93.0	90.5	89.4	90.1	95.8	99.3	95.9	87.0														
August 1	87.4	86.7	87.3	96.1	102.1	93.0	104.3	113.9	99.9	107.9	110.6	120.4	121.4	78.5	112.8	117.7	107.8	121.3	116.0	128.4	125.6	118.7	125.3	130.0	134.7	141.9	133.9	
September 1	85.1	82.8	89.7	100.3	104.6	91.8	107.1	113.9	85.1	106.3	113.3	119.7	119.9	78.5	112.4	121.7	106.1	121.4	113.1	129.0	121.1	120.2	125.2	132.0	132.2	141.8	133.5	
October 1	86.2	82.7	90.8	100.7	106.4	90.8	109.0	114.2	82.9	105.5	115.1	119.2	119.9	80.2	114.4	120.3	108.8	123.8	110.3	133.8	116.6	123.0	125.8	132.0	133.5	139.6	136.3	
November 1	87.2	85.5	91.5	101.2	109.2	90.8	109.2	114.2	80.5	105.9	116.6	119.3	120.3	82.3	116.6	119.0	108.6	129.3	103.1	138.4	113.7	126.5	126.4	133.3	134.5	137.7	138.0	
January 1	86.2	87.4	90.8	101.2	109.4	91.0	109.9	114.8	81.6	106.6	118.0	119.3	119.4	84.6	116.2	118.5	108.6	131.4	100.7	138.6	113.5	127.1	127.0	134.4	133.8	137.1	138.2	
FINAL	86.4	88.0	90.8	101.0	109.5	91.0	108.9	113.2	81.1	106.7	118.0	119.3	119.8	84.6	116.3	118.5	108.6	131.5	100.7	138.6	113.5	127.1	126.7	134.4	133.8	136.9		

Table 3. United States Corn Planting Intentions, Actual Plantings, and Acres Harvested

Year	Planted Acreage			Actual	Harvested Acreage
	February/January Intentions	March Intentions	June Intentions		
			thousand acres		
1976	80,822	82,727	84,092	84,588	71,506
1977	84,526	83,923	82,735	84,328	71,614
1978	80,944	80,237	78,717	81,675	71,930
1979	80,676	79,209	79,751	81,394	72,400
1980	83,131	82,022	83,478	84,043	72,961
1981	...	83,977	84,677	84,097	74,524
1982	...	84,735	82,129	81,857	72,719
1983	69,569 ^a	58,812	60,129	60,217	51,479
1984	...	81,766	79,940	80,617	71,897
1985	...	82,021	83,217	83,398	75,209
1986	...	78,066	76,646	76,580	68,907
1987	...	67,556	66,024	66,200	59,505
1988	...	66,926	67,519	67,717	58,250
1989	...	73,253	72,790	72,322	64,783
1990	...	74,804	74,574	74,166	66,952
1991	77,500	76,124	75,909	75,957	68,822
1992		79,007	79,335	79,311	72,077
1993		76,486	74,259	73,239	62,933
1994		78,625	78,767	78,921	72,514
1995		75,323	72,800	71,479	65,210
1996		79,920	80,355	79,229	72,644
1997		81,416	80,227	79,537	72,671
1998		80,781	80,798	80,165	72,589
1999		78,219	77,611	77,386	70,487
2000		77,881	79,579	79,551	72,740
2001		76,693	76,109	75,752	68,808

^a February

Table 4. Planted Acreage of Corn by State

State	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	thousand acres											
Georgia	660	600	750	650	600	400	580	550	500	350	360	265
Illinois	10,600	11,200	11,200	10,590	11,600	10,200	11,000	11,200	10,600	10,800	11,200	11,000
Indiana	5,600	5,700	6,100	5,550	6,100	5,400	5,600	5,900	5,800	5,800	5,700	5,800
Iowa	12,800	12,500	13,200	12,000	13,000	11,700	12,700	12,200	12,500	12,100	12,300	11,700
Kansas	1,600	1,800	1,850	2,000	2,280	2,150	2,500	2,750	3,000	3,150	3,450	3,450
Kentucky	1,350	1,400	1,420	1,370	1,350	1,280	1,300	1,270	1,300	1,320	1,330	1,200
Michigan	2,400	2,600	2,700	2,500	2,550	2,450	2,650	2,500	2,300	2,200	2,200	2,200
Minnesota	6,700	6,600	7,200	6,300	7,000	6,700	7,500	7,000	7,300	7,100	7,200	6,800
Missouri	2,100	2,300	2,500	2,200	2,400	1,650	2,750	2,700	2,650	2,650	2,850	2,700
Nebraska	7,700	8,200	8,300	8,000	8,600	8,000	8,500	8,900	8,800	8,600	8,500	8,100
North Carolina	1,200	1,050	1,150	1,000	1,000	800	1,000	960	860	750	730	700
Ohio	3,700	3,700	3,800	3,500	3,700	3,300	2,900	3,800	3,550	3,450	3,550	3,400
Pennsylvania	1,380	1,400	1,380	1,370	1,400	1,380	1,450	1,550	1,550	1,500	1,550	1,500
South Dakota	3,400	3,750	3,800	3,350	3,800	2,800	4,000	3,800	3,900	3,600	4,300	3,800
Tennessee	620	620	740	660	670	640	770	700	700	630	650	630
Texas	1,650	1,700	1,750	2,000	2,150	2,100	2,100	2,000	2,400	1,950	2,100	1,600
Wisconsin	3,700	3,800	3,900	3,400	3,750	3,650	3,900	3,850	3,700	3,600	3,500	3,400
United States	74,171	75,951	79,325	73,323	79,158	71,245	79,487	79,537	80,165	77,386	79,551	75,752

Table 5. Corn Quarterly Balance Sheet

	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	million bushels																				
September 1 stocks	1,392	2,537	3,523	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899
Production	8,119	8,235	4,174	7,672	8,875	8,226	7,131	4,929	7,532	7,934	7,475	9,477	6,338	10,051	7,400	9,233	9,207	9,759	9,431	9,915	9,507
TOTAL ^a	9,511	10,772	7,699	8,680	10,534	12,267	12,016	9,191	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,639	11,416
September-November																					
Seed, food, ind.	173	208	227	244	276	295	296	302	312	338	361	370	383	410	417	388	435	450	459	466	489
Export	519	443	493	503	415	318	396	471	582	383	421	488	435	449	660	487	380	450	534	506	451
Feed, residual	1,218	1,215	1,326	1,301	1,219	1,348	1,551	1,344	1,487	1,619	1,673	1,814	1,701	1,963	1,778	1,885	2,030	2,118	2,189	2,132	2,204
TOTAL	1,910	1,866	2,046	2,048	1,910	1,961	2,243	2,117	2,381	2,339	2,455	2,672	2,519	2,822	2,856	2,759	2,845	3,018	3,182	3,104	3,144
December 1 stocks	7,601	8,906	5,652	6,631	8,615	10,305	9,771	7,072	7,082	6,940	6,547	7,906	5,937	8,080	6,106	6,903	7,247	8,052	8,039	8,530	8,264
Seed, food, ind.	166	192	212	236	262	281	288	301	313	330	362	365	379	410	405	400	425	434	447	465	465
Export	470	510	506	580	460	313	405	502	682	471	362	463	330	590	562	525	380	465	468	416	416
Feed, residual	1,199	1,305	1,069	1,192	1,306	1,463	1,444	1,065	1,276	1,351	1,267	1,401	1,240	1,492	1,344	1,486	1,503	1,460	1,526	1,607	1,607
TOTAL	1,835	2,007	1,787	2,008	2,028	2,057	2,137	1,868	2,271	2,152	1,991	2,229	1,949	2,493	2,311	2,411	2,308	2,359	2,441	2,488	2,488
March 1 stocks	5,766	6,899	3,865	4,623	6,587	8,248	7,636	5,204	4,812	4,789	4,561	5,678	3,996	5,592	3,800	4,494	4,940	5,698	5,602	6,043	6,043
Seed, food, ind.	201	228	253	294	307	333	337	353	376	384	414	414	423	452	433	471	470	495	512	524	524
Export	596	475	513	475	201	496	510	592	601	454	371	411	270	568	610	433	350	497	451	456	456
Feed, residual	1,089	1,272	954	1,019	1,091	1,088	951	841	993	960	1,042	1,146	950	1,159	1,044	1,097	1,084	1,097	1,059	1,142	1,142
TOTAL	1,886	1,975	1,720	1,788	1,599	1,917	1,798	1,786	1,970	1,798	1,828	1,971	1,642	2,180	2,087	2,001	1,904	2,089	2,022	2,122	2,122
June 1 stocks	3,880	4,924	2,145	2,836	4,990	6,332	5,839	3,419	2,843	2,992	2,739	3,709	2,360	3,415	1,718	2,497	3,040	3,616	3,586	3,924	3,924
Seed, food, ind.	193	227	238	293	307	324	331	341	369	374	396	407	429	442	373	460	475	467	495	512	512
Export	412	393	374	292	151	365	406	463	503	419	430	301	293	570	396	353	394	569	484	559	559
Feed, residual	739	781	527	603	499	761	843	685	627	679	816	891	789	846	527	809	865	795	890	955	955
TOTAL	1,344	1,401	1,139	1,188	957	1,450	1,580	1,489	1,499	1,472	1,642	1,599	1,511	1,858	1,295	1,617	1,734	1,831	1,869	2,025	2,025
September 1 stocks Annual	2,537	3,523	1,006	1,648	4,040	4,882	4,259	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,899
Seed, food, ind.	733	855	930	1,067	1,152	1,233	1,251	1,298	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,967	1,967
Export	1,997	1,821	1,887	1,850	1,227	1,492	1,716	2,029	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,981	1,937	1,937	1,937
Feed, residual	4,245	4,573	3,876	4,115	4,114	4,660	4,789	3,934	4,382	4,609	4,798	5,252	4,680	5,460	4,693	5,277	5,482	5,471	5,664	5,836	5,836
TOTAL	6,975	7,249	6,693	7,032	6,494	7,385	7,757	7,260	8,120	7,761	7,916	8,471	7,622	9,352	8,548	8,789	8,791	9,298	9,524	9,740	9,740

^a Includes imports for the entire year.

Table 6. Corn Annual Balance Sheet

	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02 ^a
	million bushels												
Carryin	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899
Production	<u>7,532</u>	<u>7,934</u>	<u>7,475</u>	<u>9,477</u>	<u>6,338</u>	<u>10,051</u>	<u>7,400</u>	<u>9,233</u>	<u>9,207</u>	<u>9,759</u>	<u>9,431</u>	<u>9,915</u>	<u>9,507</u>
TOTAL ^b	9,464	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,232	11,659	11,416
Seed, food, industrial	1,370	1,425	1,533	1,556	1,613	1,715	1,628	1,714	1,805	1,846	1,913	1,967	2,050
Export	2,367	1,727	1,584	1,663	1,328	2,177	2,228	1,797	1,504	1,981	1,937	1,937	1,985
Feed and residual	<u>4,382</u>	<u>4,609</u>	<u>4,798</u>	<u>5,252</u>	<u>4,680</u>	<u>5,460</u>	<u>4,693</u>	<u>5,277</u>	<u>5,482</u>	<u>5,471</u>	<u>5,664</u>	<u>5,836</u>	<u>5,870</u>
TOTAL	8,120	7,761	7,915	8,471	7,621	9,352	8,548	8,789	8,791	9,298	9,515	9,741	9,905
Carryout	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,718	1,899	1,511
U.S. average price	\$2.36	\$2.28	\$2.37	\$2.07	\$2.50	\$2.26	\$3.24	\$2.71	\$2.45	\$1.94	\$1.82	\$1.85	\$2.00

^a Projected^b Includes imports

Table 7. World Coarse Grain Production

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	million metric tons																		
United States	137.1	237.7	274.9	252.8	215.9	149.7	221.4	230.7	218.6	277.4	186.5	284.9	210.0	265.7	260.4	271.5	263.2	273.1	261.9
Former USSR	99.0	90.5	100.0	105.9	113.7	97.5	104.8	99.4	80.4	95.3	95.6	79.2	57.4	52.0	67.9	38.0	40.5	49.4	61.7
Western Europe	86.2	103.6	101.4	94.0	93.3	99.5	102.2	97.6	104.3	93.8	96.1	86.6	88.5	103.8	109.4	105.6	103.0	107.5	106.7
China	92.7	96.2	82.3	87.0	95.8	94.2	93.5	111.7	112.3	108.4	117.8	114.3	124.5	141.3	114.7	144.2	137.2	114.0	116.2
Eastern Europe	67.1	72.8	65.5	73.9	63.9	61.3	60.2	51.4	64.7	43.2	44.5	46.9	51.4	50.0	59.0	51.0	54.6	36.2	51.9
Canada	21.0	22.0	23.9	25.5	25.5	19.7	23.5	24.8	21.8	19.6	24.0	23.4	24.1	28.2	25.1	26.6	26.8	24.3	22.9
India	34.1	31.4	25.8	26.6	23.5	31.3	34.6	32.6	25.9	36.8	31.0	30.1	29.8	34.3	30.9	31.7	30.5	29.2	29.3
Brazil	21.5	22.5	21.7	27.3	25.4	26.7	22.5	24.4	31.4	29.9	33.8	38.2	33.2	36.6	31.3	33.5	32.6	42.6	37.1
Argentina	17.4	18.9	17.4	13.0	13.1	7.3	8.3	10.8	14.5	14.1	13.3	13.9	14.1	18.9	24.7	17.8	21.5	19.5	15.5
South Africa	5.1	9.0	8.9	7.9	7.9	13.0	9.5	8.9	3.6	10.7	14.0	5.4	11.0	10.7	8.2	8.1	11.1	7.9	9.4
World	685.4	814.1	843.3	835.2	791.5	731.2	802.6	819.5	804.2	869.1	799.9	873.6	802.9	908.3	883.2	890.1	876.6	856.0	870.5
Excluding the U.S.	548.3	576.4	568.4	582.4	575.7	581.5	581.2	588.8	585.6	591.7	613.4	588.7	592.9	642.6	622.8	618.4	613.5	582.9	608.7

Source: USDA, FAS, World Crop Production, January 2002 and earlier issues.