



Grain Price OUTLOOK

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CORN PRICE PROSPECTS IMPROVE

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Summary

Corn prices got a real boost from the USDA reports released on January 12, 2000. This is in sharp contrast to the bearish reports received a year ago. The details of the reports are described below, but the reports contained a smaller estimate of the 1999 crop, an increase in projected use for the current marketing year, and a significant reduction in the projection of year ending stocks. These changes add to the fundamental support for prices that is being generated by expectations of declining acreage in 2000 and by persistent dryness in some areas.

The cash price of corn in central Illinois averaged about \$1.80 per bushel during the first 4 months of the marketing year. The average for the remainder of the year will likely exceed \$2.00, unless the 2000 growing season is very favorable. December 2000 futures have moved to the \$2.50 level and would be expected to move higher if dryness persists into planting time. Opportunities to price old and new crop corn at attractive levels should be available over the next several months.

Old Crop Supplies

The final production estimate for the 1999 crop came in at 9.437 billion bushels, 100 million smaller than the November estimate and 322 million smaller than the 1998

harvest (Table 1). The smaller production estimate compared to November, reflected a 388,000 acre reduction in the estimate of harvested acreage and a 0.7 bushel reduction in the estimate of the U.S. average yield. At 133.8 bushels per acre, the U.S. average yield was 0.6 bushels below the 1998 average and third largest ever (Table 2). The largest declines in yields in 1999 came in Pennsylvania (41 bushels), Missouri (17 bushels), Ohio (15 bushels), and Kentucky (10 bushels). Yields generally recovered from the 1998 levels in southern states – Arkansas, Georgia, Louisiana, Mississippi, South Carolina, Tennessee, and Texas.

Stocks of corn on December 1, 1999 were estimated at 8.02 billion bushels, 32 million less than on the same date last year. The record large December 1 inventory was 10.305 billion bushels in 1986 (Table 3). Stocks this year were generally smaller than expected, partly due to the unexpected decline in the estimated size of the 1999 harvest.

Feed and Residual Use on the Rise

Another reason that December 1 corn stocks were smaller than expected was the large feed and residual use of corn during the first

quarter of the marketing year. That use is estimated at a record 2.224 billion bushels, 4.6 percent larger than the previous record established last year (Table 3). Some increase was anticipated due to the large number of cattle in feedlots during the September through November 1999 period; the smaller than expected decline in hog numbers reported in late December; the on going increase in broiler, turkey, and egg production; and improved feeding margins. As of January 1, 2000, there were 8 percent more cattle on feed than on the same date last year; December 1 market hog numbers were down only 4 percent; broiler, turkey and egg production are expected to expand in 2000 by 5 percent, 2 percent, and 3 percent, respectively. Higher hog prices could moderate the expected decline in production for the last half of 2000.

Over the past 18 years, the percentage of annual feed and residual use that occurs in the first quarter of the marketing year has increased significantly (Table 3). For the period 1981-82 through 1987-88, first quarter use ranged from 26.7 to 34.2 percent of the annual total, averaging 30.3 percent. From 1988-89 through 1992-93, the average was 34.5 percent, in a range of 33.9 to 34.9 percent. From 1993-94 through 1998-99, the average was 36.9 percent, in a range of 35.6 to 38.7 percent. The 38.7 percent occurred last year. If that pattern is duplicated this year, first quarter use projects to a total for the year of 5.747 billion bushels.

The rate of feed and residual use, however, is expected to decline as the year progresses due to the decline in hog numbers and reduction in the number of cattle on feed. We project that the rate of year-over-year increase in the second quarter will be about half of the increase seen in the first quarter. If so, second quarter use will be about 1.5 billion bushels.

Use during the last half of the year could be about equal to the use of a year ago, 1.902 billion bushels. Use for the year, then, is projected at 5.626 billion bushels (Table 4). That is 24 million less than currently projected by the USDA.

Food and Industrial Use of Corn

Seed, feed, and industrial use of corn is in a long term trend increase. Use has expanded from 522 million bushels in 1975-76 to 1.822 billion bushels in 1998-99. The only year-over-year decline in use that occurred during that 23 year period was in 1995-96 when extremely small supplies and high prices restricted use.

During the first quarter of the 1999-00 marketing year, food and industrial use totaled an estimated 453 million bushels, about 2 percent (9 million bushels) more than during the same quarter last year. Only the use for fuel alcohol failed to show a year-over-year increase. However, the USDA projects that for the entire year, corn used for ethanol production will be up 6 percent from use of last year.

Corn use is expected to increase 3 percent for glucose and dextrose production; 5 percent for starch production; and 3 percent for beverage and manufacturing alcohol production. Use for all purposes is now projected at 1.9 billion bushels, 4.3 percent more than used during the 1998-99 marketing year. If that projection is to be reached, use during the remaining three quarters of the marketing year will have to total 1.447 billion bushels, 5 percent more than used during the same period last year. The largest year-over-year increase might be in the last quarter, where use actually declined last year (Table 3). Still, a 5 percent increase appears large. We are using just a slightly smaller projection for the year of 1.89 billion bushels (Table 4).

Exports Continue to Recover

Corn exports were modest during the first half of the 1998-99 marketing year, but came on strong during the last half of the year, particularly in the last quarter. Summer shipments totaled 568 million bushels, the fourth largest ever shipment for that quarter. Export shipments during the first quarter of the 1999-00 marketing year were estimated at 530 million bushels, 80 million more than during the same quarter last year, and the fifth highest ever level of shipments for the quarter (Table 3).

As of January 13, 2000 (19 weeks into the 1999-00 marketing year), the USDA reported that 755.1 million bushels of U.S. corn had been inspected for export, about 83 million more than on the same date last year. The large increases in shipments have occurred for Egypt (52 percent), Taiwan (14 percent), and Japan (7 percent). Japan accounted for 30 percent of the imports of U.S. corn. Twenty-four million bushels had been shipped to Iran, compared to none last year. Shipments to Taiwan were down 19 percent and shipments to Mexico were off 14 percent. The European Union had not imported any U.S. corn, compared to 5.4 million bushels by this time last year.

As of January 13, an estimated 295 million bushels of U.S. corn had been sold for export, but not yet shipped. That is about 4 percent less than outstanding sales of a year ago. The largest year-over-year decline was to "unknown" destinations. South Korea and Mexico had slightly larger undelivered purchases than at this time last year, while outstanding sales to Japan were about unchanged and sales to Taiwan were down.

The USDA projects corn exports for the 1999-00 marketing year at 1.975 billion bushels, about the same as exported last year. This projection implies that shipments over the next 7 months will fall below the

level of shipments last year. The decline is expected to come due to increased competition from China and Argentina. However, the decline will be moderated by increased needs in Brazil due to dry weather and by a recovery in imports in Southeast Asia and South Korea.

To reach the USDA projection of 1.975 billion bushels for the year, corn shipments will need to average 37 million bushels per week for the last 33 weeks of the year. New export sales will have to average about 28 million per week. For the three weeks ended January 6, new sales averaged only 17.3 million bushels per week. Sales rebounded to 44.3 million bushels for the week ended January 15. As with the projections of domestic consumption, our projection of exports of 1.96 billion bushels, is slightly below that of the USDA (Table 4).

Based on projections developed here, the inventory of corn at the end of the marketing year will total 1.763 billion bushels, 24 million less than the inventory at the beginning of the year. The USDA currently projects year ending stocks at 1.714 billion bushels. It is possible that stocks could drop below 1.7 billion if exports and/or feed demand exceed current projections. While year-ending stocks will be relatively abundant, they will be considerably smaller than projected just last month and will be well below the burdensome levels of the mid-1980s (Table 3).

Concerns About the 2000 Crop

Current corn supplies are large enough to keep prices at relatively low levels if production (U.S. and the rest of the world) remains large in the year ahead. Unless corn prices move higher into planting, there is a general expectation that corn acreage will decline modestly in 2000 following a sharp decline in 1999 (Table 5). The decline last year was the result of increased soybean acreage due to the relatively attractive loan rate on soybeans and the

poor corn yield performance in some southern states in 1998. The declines were well distributed, with only a few states planting more corn acreage than in 1998 (Table 6). Without a significant change in the price of corn or the price of competing crops, harvested acreage of corn could decline to the 70 million acre level in 2000. The USDA will release a *Prospective Plantings* report on March 31.

The U.S. average corn yield has been at trend line value or higher in the past 4 years and in 5 of the past 6 years. Relatively low yields were experienced in 1988, 1991, 1993, and 1995 (Table 2). With late summer and fall 1999 precipitation below normal levels in many areas, subsoil moisture is at a generally low level. Unless soil moisture is replenished by early spring, the market will likely start to worry about average yields in 2000. With annual corn consumption approaching 9.5 billion bushels, carryover stocks could be reduced, and perhaps reduced significantly, in the 2000-01 marketing year. With harvested acreage of 70 million, the 2000 average yield would have to be 135.7 bushels per acre to prevent a reduction in carryover. The yield would need to be above 129 bushels to keep year ending stocks above 1.3 billion bushels, and above 125 bushels to keep year-ending stocks above 1 billion bushels, assuming demand is strong enough to keep consumption at 9.5 billion bushels even with slightly higher prices.

Compounding the concern about the U.S. crop is the recognition that coarse grain production in the rest of the world has been relatively large, although trending lower, for 4 consecutive years (Table 7). A crop problem in any of the large producing and/or exporting countries (China, Argentina, or the European Union) would increase the demand for U.S. corn, everything else remaining equal. Prospects for the 2000 crop will become more of a market factor over the next several weeks.

Price Prospects

The average monthly cash price of corn dropped to \$2.16 in July 1998 and has traded between \$1.67 and \$2.08 since then. The average cash price from August 1998 through December 1999 was \$1.92. The cash price in late-January stood at about \$2.00. Prices for the 1999 crop will continue to be influenced by the rate of consumption and production prospects for the 2000 crop. Without crop problems, cash prices will likely continue to trade around the loan rate. Concerns about the crop, however, may well emerge if soil moisture is not replenished by planting time. Those concerns could propel prices into the low \$2.00 range – higher if weather problems persist. For now, the marketing year average price is expected to be near \$1.95 (Table 4).

December 2000 futures traded to the \$2.50 area following the January 12 USDA reports. That is about \$.20 above the fall 1999 lows. The contract high is \$2.795. Until spring weather conditions are better known, December futures are expected to trade in the \$2.45 to \$2.65 range. Persistent dryness could result in a challenge of the contract high. Without those problems, however, new crop prices would be expected to retreat to the loan rate by late summer or early fall.

Pricing Strategies

For old crop corn for which the loan deficiency payment has already been established, the recent price strength should probably be used to price some of those inventories. Time of delivery should depend on the cost of storage, including interest, and the price premiums for later delivery. For those preferring to wait on a spring/summer price rally to sell those inventories, some downside price protection might be considered. Either buying put options on the stored crop, or selling the crop, collecting the loan deficiency payment, and buying call options could be considered.

Call options might be more attractive for commercially stored corn. At-the-money option premiums are about 15 cents.

For old crop corn still being held under the protection of the loan program, a continuation of that strategy into the spring looks attractive. Current prices are near the loan rate and the loan program will continue to provide downside price protection. If the posted county price is below the loan rate, or drops below the loan rate, using the 60-day lock-in on the loan repayment (for crops under loan) also looks attractive. The strategy allows producers to capture the entire amount of any price rally and avoid paying interest on the loan if prices go above the loan rate.

New crop corn prices are above the loan rate. A scale-up pricing strategy on some portion of the crop might be considered. For now, the likely range of pricing opportunities is probably in the \$2.55 to \$2.65 range, basis December futures. Buying put options for new crop corn does not appear attractive unless the minimum price established by that strategy is comfortably above the loan rate.

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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
	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
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
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
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
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
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	

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	
	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	132.2
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	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	134.5
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	134.8
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	134.4
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	134.4	134.4

Table 3. 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
	million pounds																		
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
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	9,761	9,437
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	11,088	11,239
September-November																			
Seed, food, ind.	173	208	227	244	276	295	296	302	314	339	361	371	382	408	413	383	429	444	453
Export	519	443	493	503	415	318	396	471	582	381	421	488	435	449	660	487	380	450	530
Feed, residual	1,218	1,215	1,326	1,301	1,219	1,348	1,551	1,344	1,485	1,619	1,673	1,813	1,702	1,965	1,782	1,890	2,036	2,127	2,224
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	3,021	3,207
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	8,020
Seed, food, ind.	166	192	212	236	262	281	288	301	314	331	363	366	378	408	401	394	418	427	
Export	470	510	506	580	460	313	405	502	682	471	362	563	330	590	562	525	380	465	
Feed, residual	1,199	1,305	1,069	1,192	1,306	1,463	1,444	1,065	1,275	1,350	1,266	1,400	1,241	1,494	1,348	1,492	1,510	1,467	
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	
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	
Seed, food, ind.	201	228	253	294	307	333	337	353	375	383	414	413	422	450	429	465	464	489	
Export	596	475	513	475	201	496	510	590	601	454	371	411	270	568	610	431	350	497	
Feed, residual	1,089	1,272	954	1,019	1,091	1,088	951	843	994	961	1,043	1,147	951	1,162	1,048	1,105	1,089	1,103	
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	
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	
Seed, food, ind.	193	227	238	293	307	324	331	342	367	372	396	406	428	439	369	450	470	462	
Export	412	393	374	292	151	365	406	463	503	419	430	301	293	570	396	343	394	568	
Feed, residual	739	781	527	603	499	761	843	685	628	681	813	892	790	849	530	814	870	799	
TOTAL	1,344	1,401	1,139	1,188	957	1,450	1,580	1,490	1,498	1,472	1,642	1,599	1,511	1,858	1,295	1,617	1,730	1,829	
September 1 stocks	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	
Annual																			
Seed, food, ind.	733	855	930	1,067	1,152	1,233	1,251	1,298	1,370	1,425	1,534	1,556	1,609	1,704	1,612	1,692	1,782	1,822	
Export	1,997	1,821	1,887	1,850	1,227	1,492	1,716	2,026	2,368	1,725	1,584	1,663	1,328	2,177	2,228	1,795	1,504	1,981	
Feed, residual	4,245	4,573	3,876	4,115	4,115	4,660	4,789	3,941	4,382	4,611	4,798	5,252	4,685	5,471	4,708	5,302	5,505	5,496	
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	9,299	

^a Includes imports for the entire year.

Table 4. 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 ^a
	million bushels										
Carryin	1,930	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787
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>9,437</u>
TOTAL ^b	9,465	9,282	9,016	10,584	8,472	10,910	8,974	9,672	10,099	11,085	11,239
Seed, food, industrial	1,370	1,425	1,534	1,556	1,609	1,704	1,612	1,692	1,782	1,822	1,890
Export	2,368	1,725	1,584	1,663	1,328	2,177	2,228	1,795	1,504	1,981	1,960
Feed and residual	<u>4,382</u>	<u>4,611</u>	<u>4,798</u>	<u>5,252</u>	<u>4,685</u>	<u>5,471</u>	<u>4,708</u>	<u>5,302</u>	<u>5,505</u>	<u>5,496</u>	<u>5,626</u>
TOTAL	8,120	7,761	7,916	8,471	7,622	9,352	8,548	8,789	8,791	9,298	9,476
Carryout	1,344	1,521	1,100	2,113	850	1,558	426	883	1,308	1,787	1,763
U.S. average price	\$2.36	\$2.28	\$2.37	\$2.07	\$2.50	\$2.26	\$3.24	\$2.71	\$2.45	\$1.94	\$1.95

^a Projected

^b Includes imports

Table 5. 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	77,431	70,537

^a February

Table 6. Planted Acreage of Corn by State

State	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	thousand acres									
Georgia	660	600	750	650	600	400	580	550	500	350
Illinois	10,600	11,200	11,200	10,590	11,600	10,200	11,000	11,200	10,600	10,800
Indiana	5,600	5,700	6,100	5,550	6,100	5,400	5,600	5,900	5,800	5,800
Iowa	12,800	12,500	13,200	12,000	13,000	11,700	12,700	12,200	12,500	12,100
Kansas	1,600	1,800	1,850	2,000	2,280	2,150	2,500	2,750	3,000	3,150
Kentucky	1,350	1,400	1,420	1,370	1,350	1,280	1,300	1,270	6,300	1,320
Michigan	2,400	2,600	2,700	2,500	2,550	2,450	2,650	2,500	2,300	2,200
Minnesota	6,700	6,600	7,200	6,300	7,000	6,700	7,500	7,000	7,300	7,100
Missouri	2,100	2,300	2,500	2,200	2,400	1,650	2,750	2,700	2,650	2,650
Nebraska	7,700	8,200	8,300	8,000	8,600	8,000	8,500	8,900	8,800	8,600
North Carolina	1,200	1,050	1,150	1,000	1,000	800	1,000	960	860	750
Ohio	3,700	3,700	3,800	3,500	3,700	3,300	2,900	3,800	3,550	3,450
Pennsylvania	1,380	1,400	1,380	1,370	1,400	1,380	1,450	1,550	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
Tennessee	620	620	740	660	670	640	770	700	700	630
Texas	1,650	1,700	1,750	2,000	2,150	2,100	2,100	2,000	2,400	1,950
Wisconsin	3,700	3,800	3,900	3,400	3,750	3,650	3,900	3,850	3,700	3,600
United States	74,171	75,951	79,325	73,323	79,158	71,245	79,487	79,537	80,165	77,431

Table 7. World Coarse Grain Production

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	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	263.4
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	37.8	41.1
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	105.4	103.2
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	145.1	139.1
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	51.1	51.3
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
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	31.1	28.5
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	33.2	34.9
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	17.7	19.9
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	8.0	7.5	9.0
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	883.3	890.5	873.7
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	622.9	619.0	610.3

Source: USDA, FAS, World Crop Production, Jan. 2000 and earlier issues.