



# Grain Price OUTLOOK

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## SOYBEANS: HIGHEST PRICES IN OVER SEVEN YEARS

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### Summary

At 2.418 billion bushels, the 2003 U.S. soybean crop was 34 million bushels smaller than the USDA's November forecast and the smallest crop in 7 years. The U.S. average yield of 33.4 bushels was 0.4 bushels below the November forecast and the lowest in 10 years. Consumption of U.S. soybeans during the first quarter of the 2003-04 was record large, resulting in the smallest inventory of soybeans on December 1 in 10 years.

Prospects continue to point to another record South American soybean harvest in 2004 and the torrid pace of export sales has slowed. However, the necessity to continue to reduce the rate of consumption of U.S. soybeans along with the uncertainty about the size of the 2004 U.S. crop should keep prices well supported. The average price received by U.S. producers for the 2003-04 marketing year is forecast at \$7.40. That forecast is low relative to current prices, reflecting the large percentage of the crop sold at low prices before harvest and early in the marketing year. November 2004 futures could exceed the \$7.00 level if U.S. acreage declines and/or the growing season gets off to a rocky start.

The 2003 U.S. average soybean yield is estimated at 33.4 bushels per acre, 0.4 bushel

### Small Crop, Rapid Rate of Use

The USDA now estimates the size of the 2003 U.S. soybean crop at 2.418 billion bushels, 34 million below the November forecast and 444 million (15.5 percent) smaller than the August 2003 forecast (Table 1). That is a record large change from the August forecast to the January estimate, replacing the old record of 13.5 percent established in 1983. The lower estimate in January, compared to the November forecast, reflected a 245,000 acre reduction in the estimate of planted acreage and a 217,000 acre reduction in the estimate of harvested acreage. Planted acreage of soybeans in 2003 totals 73.404 million, 515,000 fewer acres than planted in 2002 and 867,000 fewer than the record acreage of 2000 (Table 2). Since 2000, soybean area increased by 600,000 acres in the western corn belt, declined by 280,000 acres in the eastern corn belt, increased by 23,000 acres in the southeast, and decreased by 1.205 million acres in the rest of the country. The western corn belt states accounted for a record 51.3 percent of U.S. soybean acreage in 2003 (Table 3).

below the November forecast and 6 bushels below the August 2003 forecast (Table 4). The

average yield was the lowest since 1993 and 8 bushels below the record yield of 1994. Interestingly, for the 31 states for which the USDA reports average yields, the 2003 yield exceeded that of 2002 in 18 states and was unchanged in 3 states. These were states primarily in the east, southeast, and west where dry weather was a problem in 2002. The average yield in 2003 was below that of 2002 in 7 of the 10 largest soybean producing states and in the 4 largest producing states. The largest decline was 16 bushels in the largest soybean producing state of Iowa.

The 2003 soybean crop was 331 million bushels smaller than the 2002 crop, while stocks at the start of the year (September 1, 2003) were down 30 million bushels from that of the previous year. Even with a marginal increase in the projected level of imports, U.S. soybean supplies for the 2003-04 marketing year are 358 million bushels smaller than supplies of a year ago and the smallest since 1996-97 (Table 5). Stocks of U.S. soybeans on December 1, 2003 were estimated at 1.686 billion bushels, the smallest for that date in 10 years. The stocks estimate implies that a record 911 million bushels of soybeans were used during the first quarter of the 2003-04 marketing year. The increase was led by a 70 million bushel increase in exports and a two million bushel increase in the domestic crush. The estimate of seed, feed, and residual use totaled 104.5 million bushels, the second consecutive year of large unexplained use during the first quarter of the marketing year. Ironically, residual use for the entire year last year was unusually small. The USDA is projecting a repeat of that pattern this year.

### **Stocks to be Reduced to Pipeline Level**

Since November 2003, U.S. soybean export activity has remained robust, but sales have slowed considerably from the record pace of the first quarter of the year. As of January 15, With 7.5 months to go in the marketing year, current exports and export sales account for 90 percent of the USDA's projected exports for the year. Last year, commitments totaled 77

2004, the USDA's report of export inspections showed cumulative inspections since September 1, 2003 of 562 million bushels, 5 percent more than inspected during the same period last year. Unlike last year, the USDA's export inspection estimates and Census Bureau export estimates tracked perfectly through November 2003. In a slight twist, inspection estimates exceeded export estimates in the USDA *Export Sales* report by 20 million bushels through November 2003, but trailed the cumulative estimate by 13 million bushels by January 15. Since the Census Bureau estimates are the official export estimates, it appears that the weekly export inspections are a good barometer of actual exports this year.

The record pace of U.S. exports so far this year has been led by shipments to China. As of January 15, the U.S. had shipped 227 million bushels of soybeans to China, 84 percent more than cumulative shipment of a year ago. Shipments to all other destinations were 11 percent smaller than shipments of a year ago, led by a 25 percent decline to the European Union, the second largest importer of U.S. soybeans. As of January 15, China accounted for 39 percent of all U.S. soybean exports.

For the year, the USDA projects U.S. soybean exports at 900 million bushels, nearly 14 percent below the record shipments of last year. As of January 15, 240 million bushels of U.S. soybeans had been sold for export, but not yet shipped.

That is 51 million bushels less than outstanding sales of a year ago. The largest declines in outstanding sales relative to last year were to the European Union, Indonesia, China, and unknown destinations (perhaps China). Unshipped sales to Japan, Taiwan, and Mexico were all larger than those of a year ago.

percent of actual shipments for the year. Sales and shipments of U.S. soybeans will have to slow significantly. In fact, sales have slowed sharply since mid-November. Cumulative

export commitments in mid-November exceeded those of the previous year by 24 percent. As of January 15, commitments were up only one percent over those of a year ago. Some outstanding sales to China could be cancelled and undoubtedly some sales will be rolled into the 2004-05 marketing year. In addition, buyers will increasingly turn to South American soybean supplies as harvest moves into full swing in a few weeks. The USDA currently projects the upcoming South American harvest at 3.71 billion bushels, 324 million larger than the 2003 crop (Table 6). The largest increase is expected in Brazil, where production is forecast at 2.2 billion bushels, 275 million larger than the 2003 harvest. The large crop reflects a 14 percent increase in area (Table 7). For the marketing year ending September 30, 2004, the USDA projects exports from Brazil and Argentina at 1.4 billion bushels, 310 million more than exported last year.

If 900 million bushels of U.S. soybeans are exported and if stocks at the end of the year cannot be reduced below 125 million bushels, only 1.455 billion bushels of soybeans will be available for domestic crush during the current marketing year. That is 10 percent fewer soybeans than were crushed last year. Crush during the first quarter of the marketing year was actually 0.5 percent larger than during the first quarter of the 2002-03 marketing year. Crush during the last three quarters of the year will have to be only 1.036 billion bushels, compared to 1.198 billion during the same period last year, a decline of 13.5 percent. The crush for the 2003-04 soybean meal and soybean oil marketing year (October 2003 through September 2004) would total 1.46 billion bushels.

The impact of a smaller U.S. soybean crush on soybean oil supplies is amplified by the lower average yield of oil per bushel of soybeans. The average yield of oil during the first quarter of the year was about 11.2 pounds, down from 11.35 pounds during the same period last year. A continuation of that average yield would mean that a crush of 1.46 billion bushels would produce about 16.38 billion pounds of oil, 2.058 billion pounds less than produced last year

If 1.46 billion bushels of soybeans are crushed, about 34.755 million tons of soybean meal will be produced this marketing year if the current average meal yield of 47.6 pounds per bushel continues. If 200,000 tons is a minimum carryover, meal use will have to be curtailed significantly this year. The USDA forecasts meal imports of 475,000 tons, up from 166,000 tons imported last year, and meal exports of 4.75 million tons, down from 6.013 million tons exported last year. That would leave 31 million tons available for domestic use, 4.3 percent less than used last year (Table 8). Most of that decline is expected to be offset by increased feeding of other oilseed meals. Some of the decline, however, will have to come from reduced use of total oilseed meals and be forced by high prices.

While the USDA projects a 27 percent decline in soybean meal exports for the year, Census Bureau estimates for October and November 2003 showed a 12 percent increase over exports of a year ago. The USDA *Export Sales* report showed cumulative commercial exports through January 15, 2004 running 14.3 percent behind the pace of a year ago and unshipped sales lagging last year's level by 10.8 percent. Exports are clearly slowing, but will have to be very small during the rest of the 2003-04 marketing year. Again, the decline in U.S. exports should accelerate as the large South American crop is processed and shipped. For the year ending September 30, 2004, the USDA projects meal exports from Brazil and Argentina to total 40.2 million tons, compared to 35.5 million tons of exports last year.

(Table 9). In addition, stocks of oil at the beginning of the year were 867 million pounds below the stocks of a year ago. The USDA expects this smaller supply to result in a 189 million pound increase in imports, an 841 million pound reduction in domestic use, a 1.411 billion pound reduction in exports, and a 485 million pound reduction in year ending stocks. The 2.252 billion pound (11.6 percent) reduction in use is expected to be accomplished by

increased, domestic and world consumption of other vegetable oils, a large increase in South American soybean oil exports, and higher vegetable oil price. World production of oilseeds other than soybeans in 2003-04 is expected to be 10 percent larger than last year's output (Table 10). The 62 percent expected reduction in oil exports appears to be occurring. As of January 15, cumulative commercial exports plus outstanding sales were 66 less than on the same date last year.

### **U.S. Soybean Acreage Prospects**

U.S. soybean acreage has declined marginally in each of the past three years. A lower CCC loan rate beginning with the 2002 crop may have contributed to the decline. In addition, the perception that soybean yields have flattened, particularly in relation to corn yields, may also be contributing to the decline in soybean acreage. That explanation, however, may be an oversimplification since acreage in both western and eastern corn belt states have fluctuated considerably in recent years (Table 3). The U.S. corn to soybean yield ratio has ranged from 3.09 to 1 (1993) to 3.66 (1999) over the 14 years from 1989 through 2002. The average ratio was 3.4 to 1. However, the yield ratio exceeded 3.4 to 1 in each year from 1998 through 2002 and jumped to 4.26 to 1 in 2003.

The acreage influence of higher corn yields relative to soybean yields may be partially offset in 2004 by higher prices for nitrogen fertilizer and a favorable soybean to corn price ratio reflected by current futures prices for the 2004. The average cash price received by producers so far in the 2003-04 marketing year can be estimated using the USDA's estimate of average monthly price received and an estimate of the percentage of the 2003 crop marketed in each month. The estimate of marketings used here is the 5-year average of the percent of the crop marketed each month. These estimates are as follows:

Month	Price	5-Year Average Marketing
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crop. The 1.5 million acre decline in winter wheat seedings and the uncertainty about spring planting conditions all contribute to a wide range of expectations about the magnitude of U.S. soybean acreage in 2004. Published expectations from the private sector range from an increase of nearly one million acres to declines of two million acres. A modest decline seems most likely, based on anecdotal reports from producers. The USDA will release the results of the survey of planting intentions on March 31. Until then, a forecast of 73.2 million acres is used here.

If planted acreage is near 73.2 million, harvested acreage should be near 72.1 million. A rebound in the U.S. average yield to the trend value of 40 bushels would then result in a 2004 crop near 2.9 billion bushels.

### **Price Prospects**

Soybean prices moved sharply higher from August 2003 to January 2004, fueled by steadily declining crop estimates, and a rapid rate of consumption. March 2004 futures increased from about \$5.10 to a high of \$8.49. The average daily spot cash price of soybeans in central Illinois moved from \$5.875 on September 1, 2003 to \$8.28 on January 21, 2004. The range in cash prices so far in the marketing year is the largest in 16 years. The highest price so far this year is the highest since 1996-97, when the cash bid reached \$8.825.

	\$/bu	%
Sept. 2003	\$6.06	7.6
Oct.	6.61	22.5
Nov.	7.05	8.8
Dec. <sup>1</sup>	7.29	7.4
Ave./Total	\$6.71	46.3
<sup>1</sup> Mid-Month price		

The mid-month price in December likely understated the average price for the month. On the other hand, the 5-year average marketings by month may under estimate the

percent of the 2003 crop marketed to date. Surprisingly low yields and higher trends in prices may have resulted in a larger than normal percent of the crop sold pre-harvest and at harvest.

Typically, another 14 percent of the crop is marketed in January, including deliveries on forward contracts. It is likely that at least 65 percent of the 2004 crop was marketed by the end of January at an average price near \$7.00. The futures market is currently offering an average cash price for the remainder of the marketing year near \$8.10. If the remaining 35 percent of the crop were sold at that price, the marketing year average, would be near \$7.40 per bushel. That is within the range of the current USDA forecast of \$6.90 to \$7.60.

The average price of soybean meal to date (October 2003 through January 2004) is \$237 per ton. The current futures price for the remainder of the year reflects an average cash price of about \$254 per ton, pointing to a marketing year average near \$248 per ton. A similar analysis projects to a marketing year average near \$.29 per pound for soybean oil.

Prices for the next several weeks could be very volatile. With use of US soybeans and soybean products slowing and a rapidly approaching South American harvest, higher prices may come grudgingly, but cannot be ruled out. Factors which will influence price behavior include the pace of export sales, the pace of the domestic crush, progress of the South American crops, U.S. acreage expectations, and decisions about meat and bonemeal. If the large South American crop materializes and the 2004 US growing season is more favorable, prices could decline sharply by late summer. November futures above \$7.00 may be a target for starting 2004 sales.

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Table 1. United States Soybean Production Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	million bushels																								
August 1	2,130	1,880	2,017	2,293	1,843	2,035	1,959	1,979	2,000	1,474	1,905	1,836	1,869	2,079	1,902	2,282	2,246	2,300	2,744	2,825	2,870	2,989	2,867	2,628	2,862
September 1	2,174	1,831	2,089	2,314	1,535	2,028	2,063	1,980	1,957	1,472	1,889	1,835	1,817	2,085	1,909	2,316	2,285	2,270	2,746	2,909	2,778	2,900	2,834	2,656	2,643
October 1	2,213	1,757	2,107	2,300	1,517	1,972	2,108	1,992	1,968	1,501	1,926	1,823	1,934	2,108	1,891	2,458	2,190	2,346	2,722	2,769	2,696	2,823	2,907	2,654	2,468
November 1	2,236	1,775	2,077	2,300	1,535	1,902	2,129	2,009	1,960	1,512	1,937	1,904	1,962	2,167	1,834	2,523	2,183	2,403	2,736	2,763	2,673	2,777	2,923	2,690	2,452
January 1	2,268	1,817	2,030	2,277	1,595	1,861	2,099	2,007	1,905	1,539	1,927	1,922	1,986	2,197	1,809	2,558	2,152	2,382	2,727	2,757	2,643	2,770	2,891	2,730	2,418
FINAL	2,261	1,798	1,989	2,190	1,636	1,861	2,099	1,943	1,938	1,549	1,924	1,926	1,987	2,190	1,870	2,515	2,174	2,380	2,689	2,741	2,654	2,758	2,891	2,749	

Table 2. Soybean Planting Intentions, Actual Plantings, and Acres Harvested

Year	January Intentions	Mar./April Intentions	June/July Intentions	Actual	Harvested Acreage
			million acres		
1975	57.5	56.6	54.6	54.6	53.8
1976	50.9	49.3	49.0	50.3	49.4
1977	53.1	55.7	59.0	59.0	57.6
1978	63.9	63.7	64.0	64.7	63.3
1979	66.3	68.8	71.6	71.4	70.3
1980	71.6	71.3	70.3	69.9	67.8
1981	----	69.8	68.5	67.5	66.2
1982	69.5 <sup>a</sup>	---	72.2	70.9	69.4
1983	68.8 <sup>a</sup>	65.8 <sup>b</sup>	63.3	63.8	62.5
1984	65.2 <sup>a</sup>	---	68.0	67.8	66.1
1985	64.4 <sup>a</sup>	---	63.3	63.1	61.6
1986	---	62.0	61.8	60.4	58.3
1987	---	56.9	58.7	58.180	57.172
1988	---	58.0	58.5	58.840	57.373
1989	---	61.7	61.3	60.820	59.282
1990		59.42	58.05	57.795	56.283
1991	58.5	57.12	59.78	59.180	58.169
1992		57.42	59.03	59.180	58.233
1993		59.30	61.58	60.085	57.307
1994		61.12	61.78	61.620	60.809
1995		61.45	63.105	62.495	61.544
1996		62.478	63.895	64.195	63.349
1997		68.800	70.850	70.005	69.110
1998		72.000	72.720	72.025	70.441
1999		73.105	74.205	73.730	72.446
2000		74.871	74.501	74.266	72.408
2001		76.657	75.416	74.075	72.975
2002		72.966	72.993	73.923	72.437
2003		73.182	73.653	73.404	72.321

<sup>a</sup> February 1

<sup>b</sup> May 1

Table 3. Planted Acres of Soybeans by Region

Region	Western Corn Belt <sup>a</sup>		Eastern Corn Belt <sup>b</sup>		Mid-South <sup>c</sup>		Southeast <sup>d</sup>		East Coast <sup>e</sup>		United States	
	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%	000 acres	%
1976	16,145	32.1	14,530	28.9	13,630	27.1	4,799	9.6	1,122	2.3	50,226	100.0
1979	23,370	32.7	19,620	27.5	18,470	25.9	8,360	11.7	1,591	2.2	71,411	100.0
1986	24,875	41.2	18,300	30.3	10,995	18.2	4,680	7.8	1,535	2.5	60,385	100.0
1987	24,120	41.5	18,580	31.9	10,330	17.8	3,675	6.3	1,475	2.5	58,180	100.0
1988	24,310	41.3	18,680	31.7	10,460	17.8	3,810	6.5	1,580	2.7	58,840	100.0
1989	24,790	40.8	19,020	31.3	10,750	17.7	4,460	7.3	1,800	2.9	60,820	100.0
1990	23,750	41.1	18,490	32.0	10,270	17.2	3,650	6.3	1,635	2.8	57,795	100.0
1991	26,035	44.0	19,420	32.8	8,990	15.2	3,005	5.1	1,730	2.9	59,180	100.0
1992	25,400	42.9	20,000	33.8	8,980	15.2	2,915	5.2	1,715	2.9	59,180	100.0
1993	25,300	42.1	20,410	34.0	9,690	16.1	2,915	4.9	1,770	2.9	60,085	100.0
1994	27,220	44.1	20,510	33.3	9,220	15.0	2,875	4.7	1,795	2.9	61,620	100.0
1995	28,210	45.1	21,130	33.8	9,130	14.7	2,290	3.6	1,735	2.8	62,495	100.0
1996	28,250	44.0	22,370	34.8	9,390	14.6	2,565	4.0	1,620	2.5	64,195	100.0
1997	32,450	46.4	22,610	32.3	10,390	14.8	2,777	4.0	1,778	2.5	70,005	100.0
1998	33,700	46.8	23,650	32.8	10,180	14.1	2,690	3.8	1,805	2.5	72,025	100.0
1999	35,800	48.5	24,100	32.7	9,700	13.2	2,360	3.2	1,770	2.4	73,730	100.0
2000	37,050	49.9	24,050	32.4	9,010	12.1	2,230	3.0	1,926	2.6	74,266	100.0
2001	37,700	50.9	24,650	33.3	7,685	10.4	2,135	2.9	1,905	2.5	74,075	100.0
2002	37,070	50.1	24,740	33.5	8,140	11.0	2,145	2.9	1,870	2.5	73,923	100.0
2003	37,650	51.3	23,770	32.4	7,990	10.9	2,253	3	1,741	2.4	73,404	100.0

<sup>a</sup> Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

<sup>b</sup> Illinois, Indiana, Michigan, Ohio, Wisconsin

<sup>c</sup> Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas

<sup>d</sup> Alabama, Florida, Georgia, North Carolina, South Carolina

<sup>e</sup> Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia



Table 4. United States Soybean Yield Estimates

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	million bushels																								
August 1	30.3	27.4	30.2	32.3	29.7	30.5	31.5	32.9	34.7	26.0	32.3	32.5	31.8	35.8	33.8	37.6	36.4	36.3	39.5	39.5	39.2	40.7	38.7	36.5	39.4
September 1	30.9	27.0	31.2	32.6	24.9	30.3	33.2	33.1	34.0	25.9	32.0	32.4	31.0	35.9	34.0	38.2	37.0	35.8	39.3	40.6	37.9	39.5	38.2	37.0	36.4
October 1	31.5	26.0	31.5	32.4	24.7	29.5	33.9	33.3	34.2	26.4	32.6	32.3	33.0	36.3	33.7	40.5	35.5	37.0	39.0	38.7	37.0	38.7	39.2	37.0	34.0
November 1	31.8	26.5	31.0	32.4	25.0	28.5	34.2	33.8	34.1	26.6	32.8	33.7	33.5	37.3	32.7	41.5	35.4	37.9	39.2	38.6	36.7	38.0	39.4	37.5	33.8
January 1	32.2	26.8	30.4	32.2	25.7	28.2	34.1	33.8	33.7	26.8	32.4	34.0	34.3	37.6	32.0	41.9	34.9	37.6	39.0	38.9	36.5	38.1	39.6	37.8	33.4
FINAL	32.1	26.5	30.1	31.5	26.2	28.1	34.1	33.3	33.9	27.0	32.3	34.1	34.2	37.6	32.6	41.4	35.3	37.6	38.9	38.9	36.6	38.1	39.6	38.0	

Table 5. Soybean Quarterly Balance Sheet

	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	2002-03	2003-04
	million bushels																					
September 1 stocks	254.5	344.6	175.7	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3
Production	2,190.3	1,635.8	1,860.9	2,099.1	1,942.6	1,937.7	1,548.8	1,923.8	1,925.9	1,986.6	2,190.4	1,869.7	2,514.9	2,174.3	2,380.3	2,688.8	2,741.0	2,653.8	2,757.8	2,890.6	2,749.3	2,417.6
TOTAL	2,444.8	1,980.4	2,036.6	2,415.2	2,479.0	2,374.1	1,855.3	2,108.8	2,167.0	2,319.6	2,470.8	2,167.0	2,730.0	2,514.1	2,572.8	2,825.6	2,943.8	3,006.3	3,052.0	3,141.3	2,962.3	2,603.9
September-November																						
Crush	284.2	269.6	253.7	267.5	295.8	293.4	275.4	273.0	304.1	322.0	328.2	329.6	346.2	351.4	360.6	395.8	409.3	426.7	420.9	427.5	417.5	419.4
Export	245.9	190.6	153.4	166.5	216.5	260.8	138.3	168.5	120.1	167.1	235.9	176.0	230.9	233.6	289.7	365.3	268.5	297.8	315.5	348.6	320.4	390.1
Seed, residual	-36.2	48.5	14.8	21.5	10.1	64.6	74.8	56.6	58.8	51.5	70.7	79.8	50.9	95.7	97.4	66.9	78.5	98.9	75.6	89.6	107.2	104.5
TOTAL	493.9	508.7	421.9	455.4	522.4	618.8	488.5	498.1	483.0	540.6	634.8	585.4	628.0	681.7	747.7	826.2	758.8	823.4	812.0	865.7	845.1	910.8
December 1 stocks	1,950.9	1,471.7	1,614.7	1,959.8	1,956.6	1,755.3	1,366.8	1,610.7	1,684.0	1,779.0	1,836.0	1,573.6	2,102.0	1,833.4	1,825.1	1,999.4	2,186.0	2,182.9	2,240.0	2,275.6	2,113.6	1,686.4
Crush	314.9	262.5	276.4	281.9	320.1	317.3	286.3	304.3	301.4	323.1	335.2	327.2	371.8	359.0	400.7	443.1	408.6	408.1	417.9	447.6	422.0	
Export	263.6	234.6	230.2	270.9	233.7	258.9	197.0	217.0	179.7	259.6	255.9	212.7	283.5	278.7	333.1	306.4	243.1	315.4	338.4	422.7	405.7	
Seed, residual	26.6	18.8	47.0	35.7	63.8	33.0	-6.7	33.9	12.8	19.6	29.3	12.1	76.5	5.3	35.5	46.9	77.0	63.2	79.8	69.3	66.0	
TOTAL	605.1	515.9	553.6	588.5	617.6	609.2	476.6	555.2	493.9	602.3	620.4	552.0	731.8	643.0	769.3	796.5	728.7	786.7	836.1	939.6	913.7	
March 1 stocks	1,345.8	955.8	1,061.1	1,371.3	1,339.0	1,146.1	890.2	1,055.5	1,190.1	1,177.3	1,215.6	1,021.6	1,370.2	1,190.4	1,055.8	1,202.9	1,457.3	1,396.0	1,403.9	1,336.0	1,201.0	
Crush	260.1	240.0	258.2	262.3	297.2	308.3	270.1	290.7	295.5	304.0	325.4	320.4	361.7	334.0	355.7	404.9	396.4	373.9	405.4	429.6	400.2	
Export	216.2	204.2	153.4	226.4	159.3	185.0	135.5	153.2	146.9	148.2	186.7	120.6	216.6	188.5	165.9	120.0	161.9	205.8	220.8	155.0	196.4	
Seed, residual	78.9	39.9	41.1	33.7	45.7	-2.5	20.1	15.7	24.2	29.4	20.1	25.3	0.0	44.9	34.3	84.4	50.4	58.9	69.5	66.5	3.3	
TOTAL	555.2	484.1	452.7	522.4	502.2	490.8	425.7	459.6	466.6	481.6	532.2	466.3	578.3	567.4	555.9	609.2	608.7	621.8	695.7	651.1	599.9	
June 1 stocks	790.6	471.7	608.4	848.9	836.8	655.3	464.5	595.9	723.5	695.7	683.4	555.3	791.9	622.8	499.9	593.7	848.6	774.4	708.2	684.9	602.4	
Crush	248.8	210.6	242.1	241.1	265.5	255.5	225.8	278.4	285.9	304.6	290.0	298.4	325.5	324.9	318.7	353.2	375.4	370.1	395.8	395.0	375.6	
Export	179.5	113.6	61.1	76.3	147.4	97.6	56.2	84.2	110.4	109.0	91.0	79.7	107.0	150.5	93.0	78.7	127.5	171.6	121.3	137.2	102.5	
Seed, residual	17.7	-28.2	-10.9	-4.9	-12.5	0.3	0.5	-5.8	-1.8	3.1	10.1	-31.9	24.6	-35.2	-43.6	-37.9	-1.3	-55.0	-56.6	-55.3	-53.1	
TOTAL	446.0	296.0	292.3	312.5	400.4	352.8	282.5	356.8	394.5	416.7	391.1	346.2	457.1	439.6	368.1	393.9	501.6	486.7	460.5	476.9	425.0	
September 1 stocks Annual	344.6	175.7	316.1	536.4	436.4	302.5	182.0	239.1	329.0	278.4	292.3	209.1	334.8	183.5	131.8	199.8	348.5	290.2	247.7	208.0	178.3	
Crush	1,108.0	982.7	1,030.4	1,052.8	1,178.7	1,174.5	1,057.6	1,146.4	1,186.9	1,253.7	1,278.8	1,275.6	1,405.2	1,369.4	1,435.7	1,595.1	1,589.7	1,578.8	1,650.0	1,699.7	1,615.3	
Export	905.2	743.0	598.1	740.1	756.9	801.7	527.0	622.9	557.1	683.9	769.5	589.0	838.0	851.2	881.7	870.4	801.0	973.8	996.0	1,063.5	1,045.0	
Seed, residual	87.0	79.0	92.0	85.9	107.0	95.4	88.7	100.4	94.0	103.6	130.2	85.3	152.0	110.4	123.6	160.3	204.6	166.2	168.3	170.1	123.7	
TOTAL	2,100.2	1,804.7	1,720.5	1,878.8	2,042.6	2,071.6	1,673.3	1,869.7	1,838.0	2,041.2	2,178.5	1,949.9	2,397.0	2,330.9	2,441.0	2,625.8	2,595.3	2,718.8	2,803.10	2,933.3	2,784.0	

Table 6. Soybean Production by Country

Year	United States	Brazil <sup>a</sup>	Argentina <sup>a</sup>	Paraguay <sup>a</sup>	China	Other	World	All Foreign
	million bushels							
1970	1,127	76	2	3	254	165	1,627	500
1971	1,176	135	3	4	290	126	1,734	558
1972	1,283	184	10	4	320	66	1,867	584
1973	1,547	289	18	7	367	64	2,292	745
1974	1,215	363	18	8	349	54	2,007	792
1975	1,547	413	26	10	367	46	2,409	862
1976	1,288	460	51	14	242	128	2,183	895
1977	1,762	350	99	12	266	154	2,643	881
1978	1,870	557	136	20	278	167	2,847	977
1979	2,261	376	132	21	274	191	3,255	994
1980	1,798	558	129	22	292	176	2,975	1,177
1981	1,989	471	152	22	342	186	3,162	1,173
1982	2,190	542	154	19	332	200	3,437	1,247
1983	1,636	571	257	20	359	213	3,056	1,420
1984	1,861	672	248	35	356	248	3,421	1,561
1985	2,099	518	268	22	386	272	3,565	1,466
1986	1,943	636	257	35	427	303	3,601	1,658
1987	1,938	662	356	40	457	359	3,812	1,874
1988	1,549	852	235	60	428	387	3,506	1,957
1989	1,924	747	395	58	376	445	3,945	2,020
1990	1,926	579	423	48	404	446	3,826	1,900
1991	1,987	709	410	48	357	435	3,946	1,959
1992	2,188	827	417	64	378	434	4,308	2,120
1993	1,871	908	456	66	563	454	4,318	2,447
1994	2,517	952	459	81	588	460	5,057	2,540
1995	2,177	887	457	88	496	487	4,591	2,415
1996	2,380	1,003	412	102	486	474	4,857	2,477
1997	2,689	1,194	717	110	551	545	5,806	3,117
1998	2,741	1,150	735	112	557	577	5,872	3,131
1999	2,654	1,257	779	107	525	527	5,875	3,221
2000	2,758	1,433	1,021	129	566	525	6,432	3,674
2001	2,891	1,598	1,102	130	566	506	6,793	3,902
2002	2,749	1,929	1,304	154	607	487	7,230	4,481
2003	2,418	2,205	1,341	165	595	578	7,302	4,884

<sup>a</sup> Harvested in the spring of the following year.

Table 7. Soybean Balance Sheet -- Years Beginning September 1

	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	2002-03	2003-04 <sup>a</sup>
	million bushels														
Carryin	182	239	329	278	292	209	335	183	132	200	348	290	248	208	178
Production	<u>1,924</u>	<u>1,926</u>	<u>1,987</u>	<u>2,190</u>	<u>1,870</u>	<u>2,515</u>	<u>2,174</u>	<u>2,380</u>	<u>2,689</u>	<u>2,741</u>	<u>2,654</u>	<u>2,758</u>	<u>2,891</u>	<u>2,749</u>	<u>2,418</u>
TOTAL <sup>b</sup>	2,109	2,167	2,320	2,470	2,168	2,729	2,514	2,573	2,826	2,944	3,006	3,052	3,141	2,962	2,604
Crush	1,146	1,187	1,254	1,279	1,276	1,405	1,369	1,436	1,597	1,590	1,578	1,640	1,700	1,615	1,455
Export	623	557	684	770	589	838	851	882	870	805	975	996	1,064	1,045	900
Seed, feed, residual	<u>101</u>	<u>94</u>	<u>103</u>	<u>129</u>	<u>94</u>	<u>151</u>	<u>111</u>	<u>123</u>	<u>159</u>	<u>201</u>	<u>163</u>	<u>169</u>	<u>169</u>	<u>124</u>	<u>124</u>
TOTAL	1,870	1,838	2,041	2,178	1,954	2,394	2,331	2,441	2,626	2,596	2,716	2,804	2,933	2,784	2,479
Carryout	239	329	278	292	209	335	183	132	200	348	290	248	208	178	125
U.S. Average price	\$5.70	\$5.75	\$5.58	\$5.60	\$6.40	\$5.48	\$6.77	\$7.35	\$6.47	\$4.93	\$4.63	\$4.54	\$4.38	\$5.53	\$7.40

<sup>a</sup> Projected

Table 8. Soybean Meal Balance Sheet -- Years Beginning October 1

	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	2002-03	2003-04
	thousand tons														
Beginning stocks	173	318	285	230	204	150	223	212	210	218	330	293	383	240	220
Production	<u>27,719</u>	<u>28,325</u>	<u>29,831</u>	<u>30,364</u>	<u>30,514</u>	<u>33,270</u>	<u>32,527</u>	<u>34,210</u>	<u>38,176</u>	<u>37,792</u>	<u>37,591</u>	<u>39,385</u>	<u>40,292</u>	<u>38,213</u>	<u>34,755</u>
TOTAL <sup>a</sup>	27,982	28,688	30,183	30,687	30,788	33,483	32,825	34,524	38,443	38,109	37,970	39,729	40,818	38,619	35,450
Domestic	22,291	22,934	23,007	24,251	25,283	26,542	26,611	27,320	28,895	30,657	30,345	31,643	33,070	32,386	31,000
Exports	<u>5,319</u>	<u>5,469</u>	<u>6,946</u>	<u>6,232</u>	<u>5,356</u>	<u>6,717</u>	<u>6,002</u>	<u>6,994</u>	<u>9,330</u>	<u>7,122</u>	<u>7,332</u>	<u>7,703</u>	<u>7,508</u>	<u>6,013</u>	<u>4,250</u>
TOTAL	27,610	28,403	29,953	30,483	30,639	33,260	32,613	34,314	38,225	37,779	37,677	39,346	40,578	38,399	35,250
Ending stocks	318	285	230	204	150	223	212	210	218	330	293	383	240	220	200
Price <sup>b</sup>	\$186.48	\$181.38	\$189.21	\$193.75	\$192.86	\$162.55	\$235.92	\$270.90	\$185.28	\$138.55	\$167.70	\$173.60	\$167.73	\$181.57	\$248.00

<sup>a</sup> Includes imports

<sup>b</sup> Bulk, Decatur, Illinois 48%

Table 9. Soybean Oil Balance Sheet -- Years Beginning October 1

	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	2002-03	2003-04
	million pounds														
Beginning stocks	1,715	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491
Production	<u>13,003</u>	<u>13,406</u>	<u>14,346</u>	<u>13,778</u>	<u>13,951</u>	<u>15,613</u>	<u>15,240</u>	<u>15,752</u>	<u>18,143</u>	<u>18,081</u>	<u>17,825</u>	<u>18,420</u>	<u>18,898</u>	<u>18,438</u>	<u>16,380</u>
TOTAL <sup>a</sup>	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,427	20,488	21,711	20,843	18,106
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,056	16,320	16,833	17,091	16,250
Exports	<u>1,353</u>	<u>779</u>	<u>1,647</u>	<u>1,419</u>	<u>1,529</u>	<u>2,680</u>	<u>992</u>	<u>2,037</u>	<u>3,079</u>	<u>2,372</u>	<u>1,376</u>	<u>1,401</u>	<u>2,519</u>	<u>2,261</u>	<u>850</u>
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	18,027	17,432	17,721	19,353	19,352	17,100
Ending stocks	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,767	2,358	1,491	1,006
Average Price <sup>b</sup>	22.3¢	21.0¢	19.1¢	21.4¢	27.1¢	27.6¢	24.75¢	22.5¢	25.8¢	19.9¢	15.6¢	14.2¢	16.5¢	22.0¢	29.0¢

<sup>a</sup> Includes imports

<sup>b</sup> Bulk, Decatur, Illinois 44%

Table 10. World Oilseed and Soybean Production

Year	Major Oilseeds			Soybeans		
	United States	Ex-United States	Total	United States	Ex-United States	Total
	million metric tons					
1977-78	56.5	93.7	150.2	47.95	23.98	71.93
1978-79	58.6	92.0	150.6	50.86	26.62	77.48
1979-80	72.4	98.1	170.5	61.72	31.79	93.51
1980-81	55.8	99.8	155.6	48.77	32.20	80.97
1981-82	64.0	105.5	169.5	54.13	31.93	86.06
1982-83	68.2	110.1	178.3	59.61	33.96	93.57
1983-84	50.4	115.1	165.5	44.52	38.64	84.16
1984-85	59.2	131.7	191.1	50.64	42.50	93.14
1985-86	65.4	130.8	196.2	57.13	39.92	97.05
1986-87	59.4	135.0	194.4	52.87	45.21	98.08
1987-88	60.6	150.0	210.6	52.75	51.06	103.81
1988-89	50.3	153.9	204.2	42.15	53.49	95.64
1989-90	59.3	153.1	212.4	52.35	55.02	107.37
1990-91	60.6	155.1	215.7	52.42	51.57	103.99
1991-92	64.3	160.0	224.3	54.07	53.31	107.38
1992-93	68.4	158.9	227.4	59.61	57.69	117.30
1993-94	59.5	168.4	227.9	50.92	66.58	117.50
1994-95	79.7	181.2	260.9	68.49	69.14	137.63
1995-96	69.1	190.6	259.7	59.24	65.72	124.96
1996-97	74.8	187.0	261.8	64.78	67.40	132.18
1997-98	83.1	203.9	287.0	73.18	84.90	158.07
1998-99	84.4	210.3	294.7	74.60	85.21	159.81
1999-00	82.3	221.1	303.4	72.22	87.68	159.90
2000-01	84.9	228.5	313.4	75.06	100.00	175.06
2001-02	89.8	235.0	324.8	78.67	106.20	184.87
2002-03	83.8	245.2	329.0	74.83	121.95	196.77
2003-04	75.6	268.5	344.1	67.18	132.94	198.73

<sup>1</sup>WASDE Jan. 2004 and earlier.