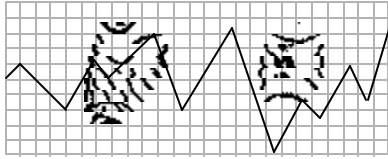




UNIVERSITY OF ILLINOIS
EXTENSION



Grain Price OUTLOOK

A joint publication of the Department of Agricultural Economics, College of Agriculture, Purdue University, West Lafayette, Indiana, and the Department of Agricultural and Consumer Economics, College of Agricultural, Consumer and Environmental Sciences, University of Illinois at Urbana-Champaign.

SOYBEANS: MORE ABUNDANT SUPPLIES

JULY 2003

Darrel Good

2003 – No. 6

Summary

Tracking consumption of the 2002 U.S. soybean crop has been a little confused all year due to the differences in USDA and Census Bureau export estimates. That confusion was compounded by the USDA's June 1 *Grain Stocks* report released on June 30. At 602 million bushels, stocks were 40 to 50 million larger than projected based on consumption estimates. The stocks estimate suggests that the 2002 crop was underestimated, but for now a very small estimate of "residual" use is being made for the 2002-03 marketing year.

The larger-than-expected estimate of June 1 stocks was accompanied by the June 30 *Acreage* report indicating that planted acreage in 2003 exceeded March intentions by 471,000 acres. Larger acreage and excellent crop condition ratings in mid-July point to a record larger U.S. crop in 2003. South America is also expected to expand soybean acreage in 2003-04. These developments have led to expectations that U.S. and world soybean stocks will increase during the year ahead. Prices for the 2003 crop have now declined below the loan rate in many areas. The average price for the 2003-04 marketing year is expected to be near the loan rate of \$5.00, resulting in a sizeable counter cyclical payment. Loan deficiency payments may also be available during the harvest period.

Consumption Slows Seasonally

The USDA estimated June 1, 2003 stocks of soybeans at 602 million bushels (Table 1). That is about 80 million fewer bushels than in store a year ago and the smallest June 1 inventory in five years. However, the estimate was about 50 million bushels larger than generally expected. The figure implies that the 2002 U.S. crop was larger than the current estimate of 2.73 billion bushels and that the error was not reflected in either the December 1, 2002 or March 1, 2003 stocks estimate. For now, the stocks figure results in a very small estimate of seed and residual use of soybeans during the third quarter of the marketing year.

STATE • COUNTY • LOCAL GROUPS • U.S. DEPARTMENT OF AGRICULTURE COOPERATING

University of Illinois Extension and Purdue University Cooperative Extension Service provide equal opportunities in programs and employment.

The domestic crush during the third quarter of the year fell below the level of a year ago, following the pattern of the first half of the year. The slower pace of domestic crush reflects smaller exports of oil and meal and a rare decline in domestic meal consumption. That decline stems from the reduced number of hogs being fed and the increased use of feed by-products from ethanol. The slower pace of crush continued in June. With only two months left in the 2002-03 soybean marketing year, it appears that the domestic crush will reach only 1.607 billion bushels, 93 million fewer bushels than processed last year (Table 2).

Based on the average yield of soybean meal per bushel crushed during the first 10 months of this year (47.1 pounds) a crush of 1.607 billion bushels will produce 37.845 million tons of soybean meal (Table 3). With beginning inventories of 240,000 tons, and imports of 240,000 tons, the supply of meal for the 2002-03 marketing year would total 38.28 million tons. The USDA projects soybean meal exports during the current year, at 6 million tons, 20 percent less than exported last year. Through May 2003, the Census Bureau indicated cumulative shipments were down 17.3 percent. As of July 10, 2003, the USDA *Export Sales* report showed cumulative shipments 21 percent less than a year ago. Shipments appear to be right on pace to reach 6 million tons for the year (Table 3).

Domestic use of soybean meal during the last quarter of the 2002-03 marketing year will be limited by availability of low priced grain, large quantities of feed byproducts, and reduced hog numbers. Use for the year is expected to reach only 32.1 million tons, 50,000 tons below the USDA projection. Total use is projected at 38.1 million tons, leaving year-ending stocks of 225,000 tons (Table 3).

If 1.607 billion bushels of soybeans are crushed during the 2002-03 marketing year, about 18.32 billion pounds of oil will be produced, reflecting a near record average oil yield of 11.4 pounds per bushel of soybeans. With beginning stocks of 2.36 billion pounds and imports of 55 million pounds, oil supply for the year totals 20.735 billion pounds (Table 4). The USDA projects a 1 percent increase in domestic oil consumption during the current year, bringing the annual total to 17.1 billion pounds. Exports of soybean oil are projected at 2.2 billion pounds, 12.7 percent less than exports during the 2001-02 marketing year. The Census Bureau estimated shipments through May at 1.713 billion pounds, only 4.4 percent less than shipped during the same period last year. Shipments, however, were very large during June and July 2002 and those large shipments will probably not be repeated this year. Still, exports may exceed the 2.2 billion pound projection. We are using a projection of 2.25 billion pounds (Table 4). Based on these projections of domestic and export use, year ending oil stock will total 1.385 billion pounds, the lowest level in five years.

U.S. soybean exports during the first quarter of the 2002-03 marketing year were about 32 million bushels less than during the same quarter last year. However, exports exceeded the record pace of last year during the second quarter and remained well above exports of a year ago during the third quarter (Table 1). Through the first three quarters of the year, the Census Bureau estimated exports at 942.7 million bushels, 16.4 million above the total of a year ago. USDA estimates of soybean exports through May totaled 964 million bushels, 19.3 million bushels above the USDA estimate of a year ago. For the six weeks ended July 10, USDA reported exports of 45 million bushels, 20 million less than during the same period last year. Cumulative shipments then, through July 10 were about equal to those of a year ago, based on the USDA *Export Sales* report. Unshipped sales, however, totaled only 67 million bushels, compared to 81 million on the same date last year. Exports during the 2001-02 marketing year totaled 1.064 billion bushels. The pace this year projects to about 1.04 billion bushels (Table 2).

Annual seed, feed, and residual use of soybeans should be near 170 million bushels. Use has been higher in years when there was a large discrepancy between export estimates from Census and USDA (e.g. 201 million in 1989-99). For the current year, calculated residual use has been quite small, leading to the conclusion that the 2002 crop was underestimated. Feed, seed, and residual use through the first three quarters of the year totaled only 157 million bushels, compared to 225.4 million in the same period last year. USDA is currently using a projection of residual use for the year of 57 million bushels, compared to 80 million bushels last year. That projection puts seed, feed, and residual use for the year at 147 million bushels, implying use during the fourth quarter of -10 million bushels. Use in the fourth quarter for the past three years has been near - 55 million bushels.

Using the USDA projection of feed, seed, and residual use, total use for the 2002-03 marketing year is expected to total 2.794 billion bushels. Year-ending stocks are projected at 148 million bushels, the lowest level in six years.

Prospects for 2003-04

The USDA's June 30 *Acreage* report estimated planted area of soybeans in 2003 at 73.653 million acres (Table 5). That estimate is 471,000 higher than intentions reported in March, but 105,000 lower than planted area in 2002. The June estimate indicates that soybean acreage in the U.S. is down for the third consecutive year, but only 613,000 less than the record acreage of 2000.

Planted acreage in 2003 is above the 2002 acreage in the western corn belt (530,000 acres), the southeast (156,000 acres), and in eastern states (49,000 acres). Acreage declined in the eastern corn belt (590,000 acres) and in the mid south (25,000 acres). The largest changes from 2002 occurred in Indiana (down 400,000), Ohio (down 350,000), Minnesota (up 400,000), and North Dakota (up 430,000). The western corn belt states account for 51 percent of the planted area in 2003. The midwest and upper plains states account for 83.7 percent of the area (Table 6).

The difference between planted and harvested acreage has varied somewhat from year to year. Since 1994, the absolute difference between planted and harvested acreage has ranged from 811,000 (1994) to 1.858 million acres (2000). On a percentage basis, unharvested acreage has ranged from 1.28 percent (1997) to 2.5 percent (2000). For 2003, the USDA projects harvested acreage at 72.681 million acres, implying unharvested acreage of 972,000 acres, or 1.32 percent of planted acreage. At that level, harvested acreage in 2003 would be 521,000 more than harvested in 2002, even though planted area declined by 105,000 acres. Weather conditions during the final two months of the growing season will have an important influence on the magnitude of harvested acreage. We are using a projection of 72.6 million acres, implying unharvested acreage of 1.053 million, or 1.43 percent of planted area.

The U.S. average soybean yield was a record 41.4 bushels per acre in 1994. Since then the average has varied from a low of 35.3 bushels (1995) to a high of 39.6 bushels (2001). The generally higher trend in average yields of the 1980s and early 1990s, has been followed by a mostly sideways pattern since 1996. The range in average yields from 1996 though 2002 was only 3 bushels per acre (Table 7).

For 2003, the USDA will release the first objective yield and production estimate on August 12. Until then, yield expectations are mostly based on weather conditions and weekly crop progress and crop conditions as reported by the USDA. As of July 13, the USDA reported that 70 percent of the crop was in good or excellent condition. That percentage is unusually high and compares to 50 percent in good or excellent condition on the same date in 2002. The best conditions were reported in Iowa, Minnesota, Mississippi, North Dakota, South Dakota, and Wisconsin. The poorest conditions were reported in Indiana, Louisiana, and Ohio. Overall, condition ratings remained unchanged for the three weeks ended July 13. In 1994, 75 percent of the crop was rated in good or excellent condition in mid July.

While condition ratings are high and result in expectations of a high average yield, there is some concern about the slower-than-average progress of the crop. As of July 13, 27 percent of the crop was in the bloom stage, compared to 36 percent on the same date last year and the five year average of 39 percent. Only 3 percent of the crop was reported setting pods, compared to the five year average of 7 percent. The slowest progress relative to the five year average was in Iowa, Indiana, and Ohio. Progress was above average in Arkansas, Mississippi, North Dakota, and South Dakota. In its July report of world supply and demand conditions, the USDA's World Outlook Board projected the 2003 U.S. average yield at 39.7 bushels per acre, based on the 1978 to 2002 trend yield by region.

With two months of critical growing season still to come, it is difficult to be confident of a yield forecast. Current crop conditions and the near term weather outlook, however, suggest that the crop is on track for at least a trend yield in 2003. We are using a projection of 40 bushels per acre, leading to a production forecast of 2.904 billion bushels. A crop of that size would be 13 million bushels larger than the previous record crop of 2001 (Table 8). With beginning stocks of 148 million and imports of 4 million, the supply of soybeans for the 2003-04 marketing year would be 3.056 billion bushels, 114 million larger than last year's supply and just above the record supply of 2000-01 (Table 2).

The domestic crush of soybeans during the 2003-04 marketing year will be determined by the demand for oil and meal. Generally, meal demand dictates the magnitude of crush as oil remains in surplus. Domestic meal consumption is not expected to increase sharply in 2003-04 due to a continued decline in animal numbers and increased availability of distillers dried grain from the ethanol industry. The USDA projects a 1 percent decline in animal numbers during the 2003-04 marketing year and a 2 percent increase in domestic meal consumption. The increased feeding rate implied by these projections suggests a large response to lower meal prices. We project a more modest increase, to 32.5 million tons (Table 3). Prospects for soybean meal exports are influenced by the prospective size of the South American crop, the rate of increase in world livestock production, and Chinese import policy. In its first projection for 2004, the USDA sees a 6 percent increase in south American soybean production, an 8 percent increase in South American meal exports, no Chinese imports, and a 5 percent increase in foreign meal consumption. Under that scenario, the U.S. may do well to maintain meal exports at 6 million tons during the year ahead. Total meal use may be about 38.5 million tons during the 2003-04 marketing year. The crush required to meet that demand depends a bit on the magnitude of imports, projected by USDA at 175,000 tons, but mostly on the meal yield. A repeat of this year's average yield of 47.1 pounds would require a crush of 1.627 billion bushels. A more typical yield of 47.5 pounds would require a crush of only 1.614 billion bushels. We use a projection of 1.62 billion (Table 2).

A crush of 1.62 billion bushels would likely produce about 18.2 billion pounds of oil, depending on average yield. A continuation of a 1 percent increase in domestic use would result in consumption of about 17.27 billion pounds. U.S. soybean oil exports will be influenced by a number of factors, including the magnitude of oilseed production outside of the U.S. The USDA currently projects an 8 percent increase in world oilseed production outside of the U.S. (Table 9) including a 6 percent increase in soybean production, a 12 percent increase in cottonseed, 0.9 percent increase in sunflower seed, a 15 percent increase in rapeseed, and a 3 percent increase in palm oil production. With an expectation of a 4.5 percent increase in foreign consumption of vegetable oils, the large increases in production could limit U.S. soybean oil exports to about one billion pounds during the year ahead (Table 4). Under this scenario, year ending oil stocks would remain near the level of this year, about 1.4 billion pounds.

U.S. soybean exports during the year ahead will be influenced mostly by Chinese demand and South American production. Chinese meal consumption during the current year is projected to be 24 percent larger than consumption of a year ago. That rate of increase probably will not be maintained during the year ahead. The USDA projects a 9 percent increase. Chinese soybean oil consumption increased by nearly 37 percent this year, requiring imports of 2.9 billion pounds of oil. Consumption is expected to expand by 8 percent during the year ahead, due partially to increased supplies of other vegetable oils. After expanding by 21 percent this year, the Chinese soybean crush is expected to expand by 9 percent during the year ahead. Allowing for a slightly larger crop and some draw down in inventories, Chinese soybean imports are expected to increase by less than 2 percent next year.

In the first projection for the 2004 crop, the USDA projects a 9 percent increase in Brazilian soybean area, a 5 percent increase in Argentine area and a 7 percent increase in area in Paraguay (Table 10). Production in these countries is projected at 3.574 billion bushels, 198 million larger than the 2003 harvest (Table 11). As a result, South American soybean exports are projected at 1.28 billion bushels during the 2003-04 marketing year compared to 1.21 billion this year.

While U.S. soybean exports are expected to remain large during 2003-04, they will likely decline from the level of the current year. Still exports could be near 1 billion bushels, pushing total consumption to 2.79 billion bushels and leaving year end stocks of 266 million bushels.

Price Prospects

The 2002 crop was not a "short" crop nor a large crop, so the price pattern has shown characteristics of both types of years. Short crop characteristics included a strong basis and inverses in the futures market. Large crop characteristics included an October low and a May high in the spot cash price. In retrospect, 2002-03 was a year of reduced production met by better than expected export demand. At this juncture, it also appears that 2002 will be followed by a large crop in 2003.

The lowest spot cash price in central Illinois, \$5.01, occurred on October 9, 2002 and the highest price, \$6.405, occurred on May 14, 2003. The range of \$1.395 is well within the experience of the past 30 years. November 2003 soybean futures has had a contract low of \$4.53 and a high of \$5.88 (June 2003). Again, the range of \$1.35 is within historical experiences, but at the low end. Monthly average prices for soybeans and products so far this year are as follows:

Month	Soybeans	Soybeans	Soybean	Soybean
	U.S. ¹	Central Illinois ²	Meal ³	Oil ⁴
	----- \$/bu -----	----- \$/bu -----	\$/ton	¢/lb
Sept. 2002	5.39	5.61	--	--
Oct.	5.19	5.25	168.25	20.75
Nov.	5.46	5.6	163.24	23.02
Dec.	5.46	5.56	163.6	22.6
Jan. 2003	5.52	5.58	167.45	21.48
Feb.	5.55	5.65	176.76	21.17
Mar.	5.6	5.65	175.4	21.48
Apr.	5.82	5.97	182.1	22.39
May	6.07	6.24	195.4	23.17
Jun.		6.18	192.19	22.78

1) USDA, average price received; 2) average daily bid price;
3) 48%, central Illinois, 4) bulk central Illinois

Prices have been at the highest level since 1998. The weighted average price received by U.S. farmers will be near \$5.50 for the entire marketing year, assuming relatively small quantities were marketed during the high price period of April through July (typically, about 21 percent). Based on the average price to date (\$176) and the expectation of some moderation in prices during the rest of the marketing year, the average price for the year will be near \$180. The marketing year average price of soybean oil will be near 22 cents per pound. Both averages will be the highest since the 1997-98 marketing year.

Based on current production prospects, the average price for the 2003-04 marketing year will be lower than the average for the current year, but perhaps not as low as during the 1998-99 to 2001-02 period. At this juncture, the average is expected to be near the loan rate of \$5.00. An average below \$5.36 would result in a counter cyclical payment, to a maximum of \$.36 per bushel, on program bushels. For program bushels, the current government program offers a minimum price of \$5.80, consisting of a fixed payment of \$.44 per bushel, a loan rate of \$5.00 per bushel and a maximum counter cyclical payment of \$.36 per bushel. For bushels in excess of program bushels, the program offers a minimum price of the loan rate.

November 2003 futures are currently trading near \$5.15 and the harvest bid in most areas is below the loan rate. There seems to be little incentive to sell additional quantities of new crop with the critical part of the growing season to come. Continuation of favorable weather and confirmation of a larger 2003 crop could eventually push November futures below \$5.00. Some will be tempted to price soybeans below the loan rate, anticipating lower prices and large loan deficiency payments (LDPs) at harvest. An alternative is to plan for low prices and to establish LDP at harvest in anticipation of a post-harvest price recovery. Both strategies carry some risk. Some consideration might be given to establishing the basis for harvest delivered soybeans in anticipation that a large crop will weaken the basis into harvest. In addition, the extremely small spreads in the futures market suggest that post-harvest ownership should be in futures rather than in storage.

Issued by Darrel Good
Extension Economist
University of Illinois

Table 1. 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
	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
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	2,729.7
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	2,941.7
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	417.4
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	316.4
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	94.3
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	828.1
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
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	422.1
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	429.9
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	60.6
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	912.6
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	2.1
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	598.7
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	602.3
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	
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	1,372.0	
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	
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	
September 1 stocks	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	
Annual																					
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	
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	
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	
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	2933.3	

Table 2. 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 ^a
	million bushels														
Carryin	182	239	329	278	292	209	335	183	132	200	348	290	248	208	148
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>2,730</u>	<u>2,904</u>
TOTAL ^b	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	2,942	3,056
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	1,607	1,620
Export	623	557	684	770	589	838	851	882	870	805	975	996	1,063	1,040	1,000
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>171</u>	<u>147</u>	<u>170</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	2,794	2,790
Carryout	239	329	278	292	209	335	183	132	200	348	290	248	208	148	266
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	\$5.50	\$5.00

^a Projected

Table 3. 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	225
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>37,845</u>	<u>38,325</u>
TOTAL ^a	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	38,325	38,725
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	33,077	32,100	32,500
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>7,501</u>	<u>6,000</u>	<u>6,000</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	38,100	38,500
Ending stocks	318	285	230	204	150	223	212	210	218	330	293	383	240	225	225
Price ^b	\$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	\$180.00	\$160.00

^a Includes imports^b Bulk, Decatur, Illinois 48%

Table 4. 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	2,877	2,360	1,385
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>18,320</u>	<u>18,200</u>
TOTAL ^a	14,740	14,728	16,132	16,027	15,574	16,733	16,472	17,821	19,723	19,546	19,427	20,488	21,821	20,735	19,660
Domestic	12,082	12,163	12,246	13,053	12,941	12,916	13,465	14,263	15,262	15,655	16,056	16,210	16,942	17,100	17,270
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>2,250</u>	<u>1,000</u>
TOTAL	13,435	12,942	13,893	14,472	14,471	15,596	14,457	16,300	18,341	18,027	17,432	17,611	19,461	19,350	18,270
Ending stocks	1,305	1,786	2,239	1,555	1,103	1,137	2,015	1,520	1,382	1,520	1,995	2,877	2,360	1,385	1,390
Average Price ^b	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¢	20.0¢

^a Includes imports^b Bulk, Decatur, Illinois 44%

Table 5. 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 ^a	---	72.2	70.9	69.4
1983	68.8 ^a	65.8 ^b	63.3	63.8	62.5
1984	65.2 ^a	---	68.0	67.8	66.1
1985	64.4 ^a	---	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	73.758	72.160
2003		73.182	73.653		(72.600)

^a February 1

^b May 1

Table 6. Planted Acres of Soybeans by Region

Region	Western Corn Belt ^a		Eastern Corn Belt ^b		Mid-South ^c		Southeast ^d		East Coast ^e		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	9,070	12.2	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	37,020	50.2	24,690	33.2	8,130	11.0	2,135	2.9	1,783	2.4	73,758	100.0
2003	37,550	51.0	24,100	32.7	7,880	10.7	2,291	3.1	1,832	2.5	73,653	100.0

^a Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota

^b Illinois, Indiana, Michigan, Ohio, Wisconsin

^c Arkansas, Kentucky, Louisiana, Mississippi, Oklahoma, Tennessee, Texas

^d Alabama, Florida, Georgia, North Carolina, South Carolina

^e Delaware, Maryland, New Jersey, New York, Pennsylvania, Virginia, West Virginia

Table 7. 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
	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
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
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
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
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
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	

Table 8. 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
	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	2,727	2,870	2,989	2,867	2,628
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
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
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
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
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	

Table 9. 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	234.6	324.5	78.67	105.75	184.42
2002-03	83.3	244.4	327.7	74.29	121.53	195.82
2003-04	87.9	264.2	352.1	78.52	129.02	207.54

¹WASDE July 2003 and earlier.

Table 10. South American Soybean Area, Yield and, Production, 1988 to Date

Year	Brazil			Argentina			Paraguay		
	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production
	mil. ha.	t/ha.	mil.t	mil. ha.	t/ha.	mil. t.	mil. ha.	t/ha.	mil. t.
1988-89	12.15	1.94	23.60	4.00	1.63	6.50	0.85	1.90	1.62
1989-90	11.55	1.76	20.34	4.95	2.17	10.75	0.98	1.61	1.58
1990-91	9.75	1.62	15.75	4.75	2.42	11.50	0.89	1.46	1.30
1991-92	9.70	1.99	19.30	4.80	2.32	11.15	0.90	1.44	1.30
1992-93	10.63	2.12	22.50	4.90	2.32	11.35	0.98	1.79	1.75
1993-94	11.44	2.16	24.70	5.40	2.30	12.40	1.05	1.71	1.80
1994-95	11.68	2.22	25.90	5.70	2.19	12.50	1.10	2.00	2.20
1995-96	10.95	2.21	24.15	5.98	2.08	12.43	1.10	2.18	2.40
1996-97	11.80	2.27	26.80	6.26	1.81	11.20	1.20	2.31	2.77
1997-98	13.00	2.50	32.50	6.95	2.80	19.50	1.20	2.49	2.99
1998-99	12.90	2.43	31.30	8.17	2.45	20.00	1.20	2.54	3.05
1999-00	13.60	2.51	34.20	8.58	2.47	21.20	1.15	2.52	2.90
2000-01	13.93	2.80	39.00	10.40	2.67	27.80	1.35	2.61	3.52
2001-02	16.35	2.66	43.50	11.40	2.63	30.00	1.42	2.18	3.10
2002-03	18.40	2.85	52.50	12.60	2.80	35.50	1.45	2.69	3.90
2003-04	20.00	2.80	56.00	13.20	2.80	37.00	1.55	2.74	4.25

Source: USDA, FAS

Table 11. Soybean Production by Country

Year	United States	Brazil ^a	Argentina ^a	Paraguay ^a	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	114	566	505	6,776	3,885
2002	2,730	1,929	1,304	143	607	482	7,195	4,465
2003	2,885	2,058	1,360	156	610	557	7,626	4,741

^a Harvested in the spring of the following year.