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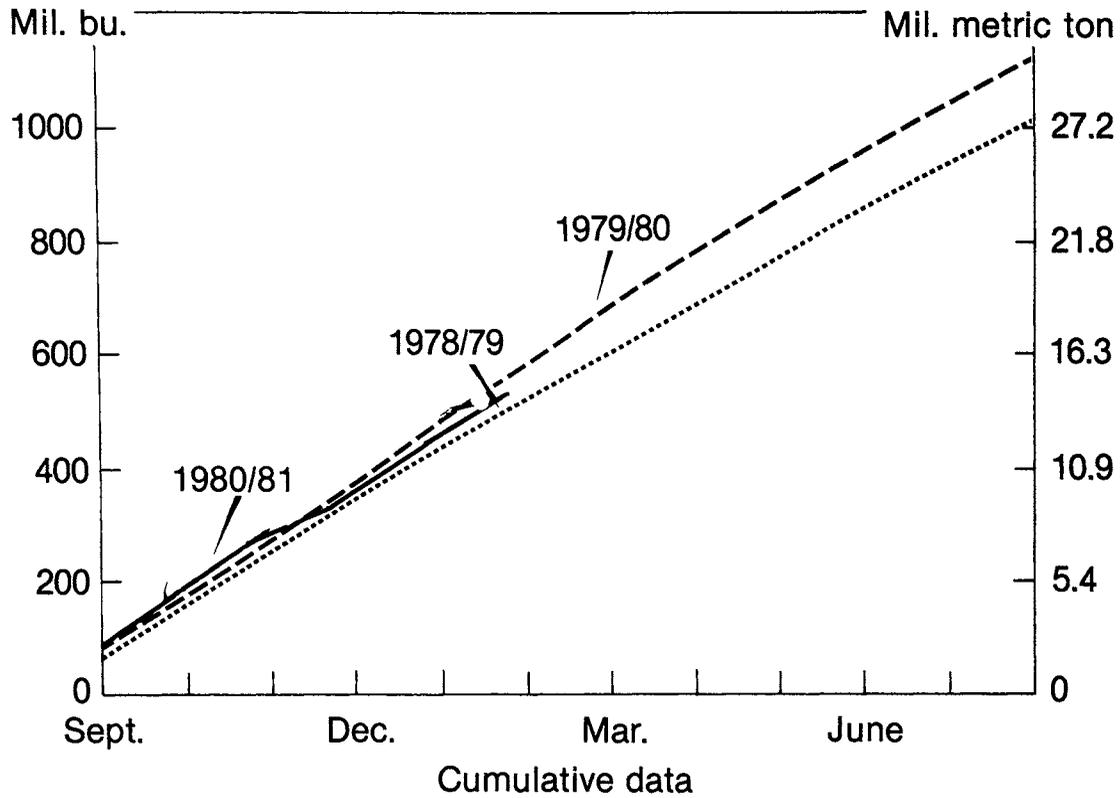
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May 1981

Fats and Oils

OUTLOOK & SITUATION

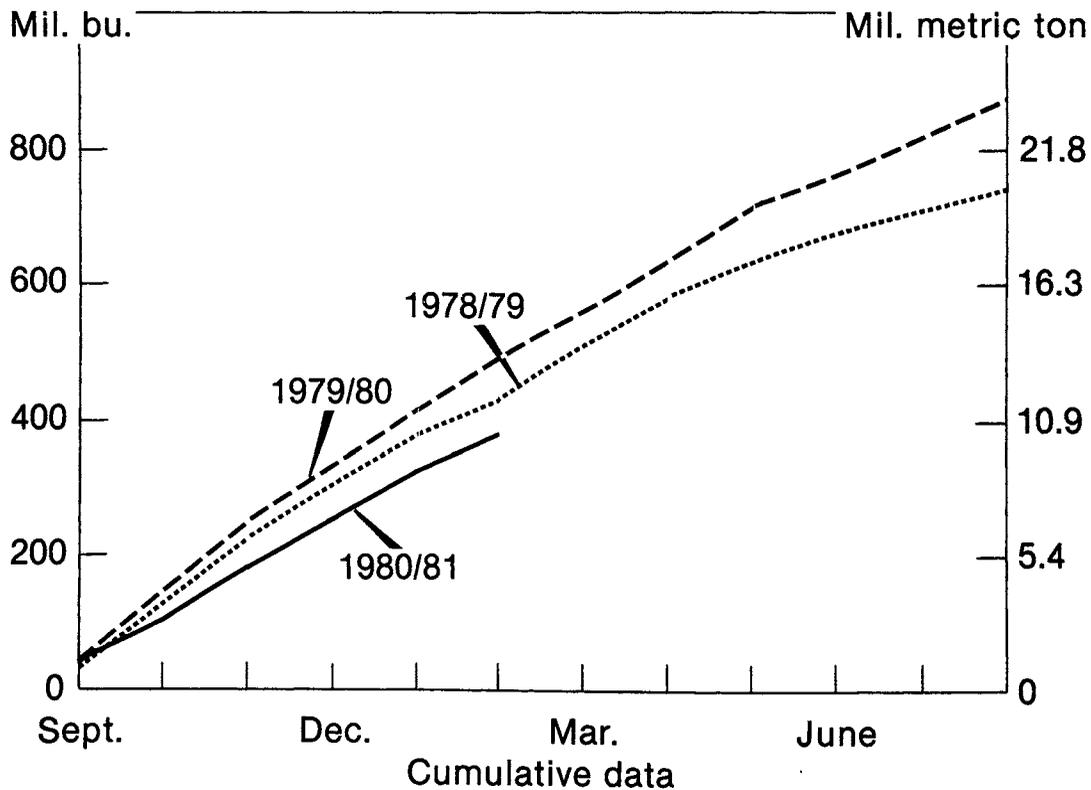
Monthly U.S. Soybean Crushings



USDA

Neg. ESS 17-81 (5)

Monthly U.S. Soybean Exports



USDA

Neg. ESS 18-81 (5)

In This Issue

CONTENTS

	<i>Page</i>
SUMMARY	3
1980/81 Oilseeds and Products Situation and Outlook	4
Soybeans	4
Sunflower	7
Cottonseed	8
Peanuts	8
1980/81 Animal Fats Situation and Outlook	9
Lard	9
Tallow	9
Special Article: Trend Soybean Yields	10

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Summary

Weak demand for soybeans and soybean products continues to curtail use. Lower animal numbers, high vegetable oils stocks here and abroad, narrow crushing margins, strengthening of the dollar against some foreign currencies, a record crop in Brazil, and continued high interest rates have all combined to weaken overall demand for U.S. soybeans and products—keeping prices in check despite last year's short crop.

U.S. farm prices of soybeans are expected to average around \$7.55 a bushel in 1980/81, 20 percent above last season. However, in recent months, prices have declined, falling from a peak of \$8.18 per bushel in November to \$7.10 in March. Soybean meal prices are also well above a year ago and are likely to average 20 percent higher than in 1979/80. In contrast, soybean oil prices are forecast to fall below last season and average 23.5 cents per pound.

In response to higher prices for soybean meal and other feeds, U.S. livestock producers cut soybean meal use. During October-March, domestic disappearance of soybean meal was down 9 percent from a year earlier.

Despite relatively low soybean oil prices, domestic use and exports during the first 5 months of the marketing year were down 4 and 45 percent, respectively, from 1979/80. Increased competition from Brazil, high stocks of soybean oil around the world, and ample supplies of relatively cheaper competitive oils are all contributing to a significant decline in world demand for soybean oil. As

a result, U.S. soybean oil exports for the 1980/81 season are forecast to drop 35 percent from last year to 1,750 million pounds.

As domestic use and exports decline, oil stocks continue to build. Ending stocks on September 30 are forecast at 1,860 million pounds, up 54 percent from a year ago. Weak demand for soybean products, particularly oil, has led to proportionately lower prices for soybean products relative to beans. The resulting narrow crushing margins caused processors to slow domestic crushing. The U.S. crush is expected to drop 7 percent from 1979/80.

In addition to a general decline in demand for soybeans and their products, Brazil and Argentina are both forecast to have record crops this year. Brazil's exportable supplies will be up and will compete aggressively with U.S. exports. The extent of this competition will depend not only on the amount exported but the timing as well.

U.S. soybeans stocks on April 1 totaled 1.034 billion bushels, compared with 1.183 billion a year ago. About 52 percent were stored on farms, about a 10-percent decrease in on-farm stocks. Total stocks at the end of this season are forecast at 275 million bushels, compared with a carryin of 359 million last September 1.

Despite a less favorable soybean/corn price ratio this spring, U.S. producers indicated they planned to seed 69.8 million acres of soybeans, down less than 1 percent from last year. An increase in double-cropped acreage is likely, cushioning the decline; however, if moisture con-

ditions improve by early May, farmers may plant more corn and reduce soybean acreage more than indicated.

Increased domestic crushing capacity and strong export demand for sunflower oil are responsible for an anticipated record crush of 815,000 metric tons. If realized, this crush would be up 49 percent from last year, and would constitute 35 percent of total sunflower seed use. Short world supplies of premium oils have contributed to an anticipated threefold increase in U.S. sunflower oil exports.

According to the planting intentions report, farmers plan to seed around 3.6 million acres of oil-type sunflower seed, down 3 percent from last year. However, a 6-percent increase is expected in North Dakota, the major producing state.

At 5.4 million short tons, U.S. supplies of cottonseed are 14 percent below last season, although larger beginning stocks partially offset smaller production. While the cottonseed crush may be down only slightly from 1979/80, exports are expected to increase 60 percent

over a year ago. An increase in total use will reduce ending stocks on July 31 to 215 million short tons, the lowest since 1976.

U.S. cotton producers are anticipated to plant nearly 14.5 million acres this spring based on surveys conducted in January and March. A return to more normal yields could therefore result in sharply higher cottonseed production for the 1981/82 season.

Peanut use is running substantially below last season due to the sharply reduced 1980 crop. On April 14, the President raised the import quota by an additional 100 million pounds to 301.7 million (shelled basis). A 1-month extension through July was also granted. This action is expected to result in some increase in peanut imports during the August 1980-July 1981 marketing year. Exports are expected to fall more than one-half. The loan rates for 1981 peanuts remain the same as last season—\$455 per short ton for quota peanuts and \$250 per ton for "additional" peanuts.

Fats and Oils Situation

1980/81 OILSEEDS AND PRODUCTS SITUATION AND OUTLOOK

Soybeans

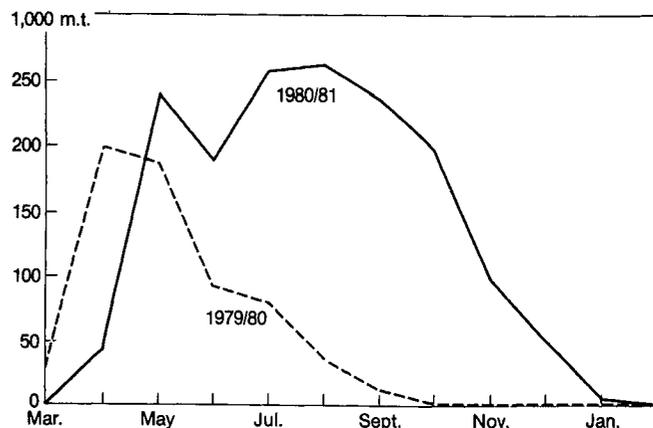
Weak demand for soybeans and soybean products continues to curtail use. The weak demand for products, particularly in the export market for U.S. soybean oil, has led to proportionately lower product prices relative to the price of soybeans. The resulting narrow crushing margins have caused processors to slow domestic crush. Current estimates place total 1980/81 crushings at 1,050 million bushels or about 7 percent below last year's record level. For the first 6 months of the marketing year, crushings were already running 7 percent behind the pace of a year earlier and little or no improvement is expected for the rest of the crop year in light of continued weak demand prospects.

In addition to slowed domestic use, U.S. soybean exports are also running sharply below last year's record pace and for 1980/81 are forecast to decline 13 percent to 760 million bushels. Several factors are contributing to the decline in U.S. soybean exports. One of the primary markets for U.S. soybean exports is the European Community, (EC). The E.C. imports beans and crushes them to supplement imported meal supplies, mainly for internal meal consumption. The strengthening of the dollar against some of the (EC) currencies has caused soybeans to become relatively more expensive. In terms of U.S. dollars, soybean meal prices in Rotterdam have also increased 20 to 30 percent, resulting in increased substitution of lower priced feedstuffs, such as corn gluten meal. A record domestic rapeseed crop and larger stocks

of soybean oil, are other factors that have caused EC buyers to opt for increased imports of meal rather than beans. This adjustment is being felt by the United States in the form of reduced exports of beans.

Export competition from Brazil has also increased. During September 1980 through February 1981, Brazil exported 555 thousand metric tons of soybeans or 36 percent of their total exports for their 80/81 season. Consequently, there was additional competition from Brazilian

Monthly Brazilian Soybean Exports



USDA

Neg. ESS 297-81 (4)

soybeans during the peak U.S. export season. With a record 1981 Brazilian crop of 15.75 million metric tons, total export availabilities of soybean products are up and U.S. soybean export prospects will again be linked to both the quantities and timing of Brazilian exports of beans and products.

Lower-than-expected domestic use, increased strength of the dollar and low export demand, a record crop in South America, and continued high interest rates have all combined to keep soybean prices in check despite last year's short crop. From the November peak of \$8.18 a bushel, average prices received by farmers have fluctuated in the \$7.00 to 7.50 range for the past 3 months. The season average price received by farmers is now forecast at \$7.55 per bushel up from last season's \$6.28.

Despite a less favorable soybean/corn price ratio this spring, farmers at that time indicated they intended to seed 69.8 million acres of soybeans, down less than 1 percent from a year ago. An increase in double cropped acreage in some States is likely to cushion some of the decline. However, the biggest factor this planting season appears to be concern over soil moisture levels in some of the key producing areas. If soil moisture conditions improve by early May, farmers may plant more corn and soybean acreage could be down more than indicated by the planting intentions report. If moisture levels remain critical, farmers will opt for the more drought-resistant soybean.

Domestic Disappearance of Soybean Meal Slows

Although soybean meal prices declined sharply from \$261 a ton in November to \$210 in March, domestic use has been lower than expected. During October-February, disappearance was down 9 percent from the same period of last season. The reduction is attributed to lower feeding rates because of low profitability in livestock feeding operations and a mild winter.

Higher feed prices than last season have contributed to a profit squeeze for hog producers. Many of the large producers in the Midwest also produce feed, so higher grain prices have encouraged them to sell feed on the cash grain market instead of feeding it to livestock. Further declines in hog production are expected for the April-June quarter as the expansion phase for pork comes to an end. Some increases in broiler production are expected in the third quarter but the increase will not be sufficient to offset the decline in hog production. With demand for soybean meal relatively weak, domestic use is expected to be slow throughout the remainder of the marketing year, and soybean meal prices could slip from current levels of around \$215.00 per short ton.

Soybean meal exports are also projected to decline 15 percent to 6.7 million tons. Weak demand in some major markets, particularly EC, and high interest rates have cut global use while increased Southern Hemisphere supplies of soybean meal have offered increased competition

Table 1—Soybeans: U.S. acreage planted by regions and States

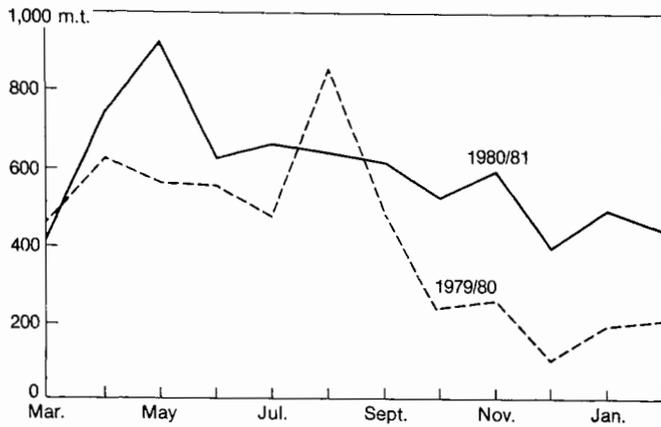
Region and State	Indicated		1981 as a percentage of 1980
	1980	1981 ¹	
	1,000 acres		Percent
Southeast			
North Carolina	2,030	2,100	103
South Carolina	1,700	1,700	100
Georgia	2,450	2,500	102
Alabama	2,250	2,300	102
Total	8,430	8,600	102
South Central			
Kentucky	1,650	1,700	103
Tennessee	2,650	2,700	102
Mississippi	4,000	3,850	96
Arkansas	4,800	4,900	102
Louisiana	3,450	3,500	101
Total	16,550	16,650	101
Eastern Corn Belt			
Ohio	3,800	3,500	92
Indiana	4,400	4,350	99
Illinois	9,300	9,200	99
Iowa	8,300	8,200	99
Missouri	5,700	5,500	96
Minnesota	4,800	4,600	96
Total	36,300	35,350	97
Western Corn Belt			
North Dakota	210	220	105
South Dakota	780	740	95
Nebraska	1,830	1,950	107
Kansas	1,550	1,580	102
Total	4,370	4,490	103
Other States ²	4,437	4,727	107
U.S.	70,087	69,817	99.6

¹Prospective plantings report of March 19, 1981. ²Delaware, Florida, Maryland, Michigan, New Jersey, New York, Oklahoma, Pennsylvania, Texas, Virginia, and Wisconsin.

Table 2—Stocks on farm, off farm and total in all positions

	1,000 bushels		
	On Farm	Off farm	Total
1977			
January 1	473,405	559,045	1,032,450
April 1	227,794	390,214	618,008
June 1	92,400	243,335	335,735
September 1	32,756	70,168	102,924
1978			
January 1	674,550	652,400	1,326,950
April 1	394,405	455,448	849,853
June 1	207,541	298,815	506,356
September 1	59,132	102,044	161,176
1979			
January 1	699,556	692,534	1,392,090
April 1	412,570	467,646	880,216
June 1	241,255	284,850	526,105
September 1	61,509	112,579	174,088
1980			
January 1	892,934	877,896	1,770,830
April 1	602,779	580,322	1,183,101
June 1	396,650	378,152	774,802
September 1	128,888	229,880	358,768
1981			
January 1	738,845	790,300	1,529,145
April 1	539,645	493,907	1,033,552
June 1			
September 1			

Monthly Brazilian Soybean Meal Exports



USDA

Neg ESS 298-81 (4)

to U.S. soybean meal. Exports during the September-February period of the 79/80 Brazilian marketing year, (beginning in March) were 30 percent of that seasons total. However, during the same period of the 1980/81 season, exports were 43 percent of the total for the season. Thus a greater percent of total meal exports were marketed in the September through February period, overlapping into the peak U.S. exporting period.

For the remainder of the U.S. crop year, U.S. exports face potentially stiffer competition as soybean meal production in Brazil is expected to increase 2 percent during their marketing year beginning in March 1981. Although consumption in Brazil is forecast to remain about unchanged, its exportable supplies will increase and soybean meal exports could increase to 7.8 million metric tons.

Soybean Oil Stocks Continue To Build

Both domestic disappearance and exports of soybean oil continue to lag below last season, despite relatively low prices. During the first 5 months of the marketing year, domestic disappearance and exports were down 4 and 45 percent, respectively, compared from 1979/80 season while prices were 2 to .5 cents lower.

Slow economic growth in the United States is causing domestic soybean oil use to decline which in turn is contributing to a build up in stocks. At the end of March, U.S. soybean oil stocks reached an unprecedented 1.98 billion pounds.

U.S. soybean oil exports are also expected to decline by more than one-third because world demand has dropped off significantly. Some additional domestic supplies of competing oils including rapeseed oil in Western Europe and peanut oil in India, have partly satisfied some vegetable oil import demand. India has also imposed restrictions on the use of imported vegetable oil in vanaspati production. Apparent export availabilities of palm, coconut, rapeseed and olive oil supplies increased significantly in 1980/81. Also, world palm oil prices were very competitive with soybean oil, particularly early in the U.S. marketing year. Some markets including India have shifted to greater palm oil imports.

The United States may also face competition for any new purchase in 1980/81 as Brazil is also expected to have ample supplies of soybean oil. Much of the USSR's vegetable oil requirements are likely to be supplied by Brazil and Argentina. Brazil is also expected to supply a significant portion of India's soybean oil imports in 1981.

Due to unusually large availabilities and weak demand, soybean oil prices are projected to decline from 24.3 cents per pound last season to 23.5 in 1980/81. Relatively low soybean oil prices are in turn hurting crushing margins as only around 32 percent of total crushing value is being contributed by oil rather than the usual 40 percent.

Oilseed Production and Exports Record High in Competing Countries

The spring 1981 soybean crops in Brazil, Argentina, and Paraguay are projected to total 20.45 million metric tons (751 million bushels), a 5 percent rise over the 1980 harvest.

In Brazil, soybean production is up approximately 4 percent, and is expected to reach a record level for the second consecutive year. Excellent growing and harvesting conditions for most producing States account for the favorable crop prospects. In Western Parana and parts of Sao Paulo, the harvest as of late March was nearly three-fourths complete. The northern producing regions are well underway, completing nearly two-fifths of the harvest. Only in Rio Grande do Sul has harvesting been slightly delayed.

In Argentina, soybean production is estimated at 3.9 million tons (143 million bushels), up nearly 7 percent. Excellent weather appears to have offset the impact of expanding soybean double cropping; yield will be record or near-record high.

In Paraguay, yields will be better than expected and production is estimated up about one-third from 1980. Total soybean production is forecast at 800,000 tons (29 million bushels).

Although the Brazilian government has not finalized its export policy for the marketing year beginning in March 1981, exports are likely to expand as a result of their abundant supplies. Generally, Brazil's export objective is to crush the beans domestically and export the products. This year, Brazil is also likely to significantly expand soybean imports from Argentina and Paraguay for crushing and exporting the products. Furthermore, to insure crush facilities are used at greater capacity throughout the year, Brazil may import a modest quantity of soybeans from the United States. At this writing, Brazil's exports of soybeans, soybean meal, and soybean oil are expected to total 1.5 mmt, 7.8 mmt, and 1.0 mmt, respectively.

Even though exports of soybeans and products may earn larger revenues than any other Brazilian agricultural export, the government continues to use an export quota system to insure adequate supplies for domestic use. Exports from Brazil last year were therefore unseasonally strong during October-December, as the Brazilians waited to make sure domestic needs were met. With

larger supplies, export availabilities are likely to increase and are expected to comprise a larger share of world trade. During the October 1980-September 1981 period

Brazilian exports are expected to comprise 6, 41 & 28 percent of world trade for soybeans, meal, and oil respectively.

SUNFLOWER

The U.S. sunflower supply for the current marketing year is estimated at 2.9 million metric tons, down considerably from last year's record 3.6 million metric tons, reflecting reduced 1980 plantings and lower yields due to the drought. Based on these supplies and on 1980/81 crushing and export estimates, carryover stocks of sunflower seed on September 1, 1981 are expected to be around 610,000 metric tons, well below the 1.1 million metric tons of last year.

Crushing at New High

U.S. sunflower crushings during September-February reached a record of about 325,000 metric tons, 15 percent more than in the same period in 1979/80. Increased crushing capacity and strong export demand for sunflower oil are responsible for the record crush. Crushings for the entire 1980/81 season may total close to 815,000 metric tons. If realized, this crush would be up 49 percent over last year and would constitute 35 percent of total use.

Sunflower Oil Exports Up

Exports are still the largest market for the U.S. sunflower seed crop although domestic crushings are taking a larger share. U.S. sunflower seed exports during September-February totaled 679,000 metric tons, only about three-fourths of the level a year earlier. The EC accounted for 62 percent of the total while a year ago it accounted for 80 percent. This drop is primarily due to the record rapeseed crop in Europe this past year. Other major markets for U.S. sunflower seed are Mexico and Portugal. U.S. sunflower seed exports for all of 1980/81 are projected at about 1.35 million metric tons, down from last year's record 1.8 million metric tons.

Exports of sunflower oil are expected to triple from their 1979/80 volume. Major sunflower oil markets are Venezuela, Algeria, Egypt, and Mexico. World demand for sunflower oil is expected to continue strong primarily because of the short sunflower seed crop in Russia resulting in short world supplies of premium oils.

Sunflower Prices Higher

This year's sunflower seed prices to farmers are expected to average about \$10.65 per cwt., up about \$1.75 from last year. Average sunflower seed prices received by farmers rose each month this marketing year from \$9.97 per cwt. in September to \$11.00 in January. Since then, sunflower seed prices have been fairly steady. These higher prices are helping farmers offset a sharp increase in production costs. Nonland costs increased at the same time that average yield per acre declined.

Sunflower oil prices (crude, Minneapolis) are running around 27 cents per pound, sharply above last year. Sun-

flower oil is commanding a premium of about 4 cents a pound over soybean oil.

1981 Plantings Down Slightly

Prospective plantings of sunflower seed for all purposes are placed at 3.9 million acres in the four major producing States (North Dakota, South Dakota, Minnesota and Texas), down about 3 percent from last year. Acreage intentions for oil-type seed at 3.6 million acres, are down 3 percent from last year. Indicated acreage for non-oil type is 316,000 acres, up 9 percent. Oil variety plantings make up 92 percent of the total acreage.

The indicated decline in acreage is not uniform in the four States. Indicated 1981 plantings were actually up 6 percent (160,000 acres) in North Dakota, the major producing state. The major loss is in Minnesota where prospective plantings were down 20 percent (185,000 acres). It appears that this acreage will be planted mostly to corn. Also, indications are that South Dakota's sunflower plantings will be down 75,000 acres and Texas down 5,000.

Assuming favorable weather, the 1981 sunflower acreage could yield a crop of around 2-1/2 million metric tons, compared with 1.8 million metric tons in 1980. With a projected carryover of about 610,000 metric tons, the prospective 1981/82 sunflower seed supply could be about 3.1 million metric tons, or 7 percent more than a year earlier.

Table 3—Sunflowers: By varietal type, U.S. acreage planted by States

State and varietal type	1980	Indicated 1981 ¹	1981 as a percentage of 1980
	1,000 acres		Percent
Oil varieties			
Minnesota	860	680	79
North Dakota	2,270	2,400	106
South Dakota	524	449	86
Texas	65	60	92
Total	3,719	3,589	96.5
Non-oil varieties			
Minnesota	60	55	92
North Dakota	230	260	113
South Dakota	1	1	100
Texas	—	—	—
Total	291	316	108.6
Total			
Minnesota	920	735	80
North Dakota	2,500	2,660	106
South Dakota	525	450	86
Texas	65	60	92
U.S.	4,010	3,905	97.4

¹Prospective planting report of March 19, 1981.

COTTONSEED

Cottonseed production for 1980/81 is estimated at 4.36 million tons, nearly a fourth below last season. Drought in major cotton-producing areas caused seed yield to fall to 0.34 tons per harvested acre, from 0.45 tons in 1979/80. Total supplies of 5.4 million tons are only 14 percent below last season as larger beginning stocks partially offset the smaller production.

Cottonseed crushings are estimated at 4.15 million tons this season, down slightly from 1979/80. Exports are expected to total 150,000 tons, up 60 percent.

Ending stocks of cottonseed on July 31, 1981 are expected to total 215,000 tons, sharply below the season-beginning level of 1.06 million. If realized, this carryover would be the smallest since 1976.

Farm prices of cottonseed are expected to average around \$125 per ton for the 1980/81 season, slightly above last season's \$121. However, because of lower yields, this price will not cover U.S. average ginning costs of around \$44 per acre. The total farm value of cottonseed, estimated at \$545 million for 1980/81 is about \$150 million below a year earlier.

This season's estimated crush is expected to yield around 1.3 billion pounds of oil and 1.9 million tons of

meal. With oil exports estimated at 800 million pounds and domestic use at 550 million pounds, stocks next October 1 could be 100 million pounds, compared with 122 million the year earlier. For the season, cottonseed oil prices are expected to average around 25 cents a pound (crude, Mississippi Valley), little changed from 1979/80. Large world vegetable oil stocks are depressing prices.

Domestic use of cottonseed meal is estimated at 1.8 million tons, about 5 percent below 1979/80. This decrease is in line with the 7-percent smaller supply this season. Exports could total around 150,000 tons. Meal prices, in contrast to oil, are expected to average sharply higher this season, at \$200 per ton (41-percent protein, Memphis).

U.S. cotton producers are expected to plant nearly 14.5 million acres this spring based on surveys conducted in January and March. A return to more normal yields could, therefore, result in sharply higher cottonseed production for the 1981/82 season.

PEANUTS

Peanut supplies this season total about 3.2 billion pounds, (farmers' stock basis), about 30 percent below 1979/80. To further alleviate the short supply, President Reagan raised the import quota on "additional" peanuts 100 million pounds (shelled basis) from 201.7 million. Entry is permitted through July 31, 1981. Imports totaled 142 million pounds (shelled basis) through April 22, with India and China accounting for the major share.

Major categories of edible uses are running substantially below year-earlier levels and likely will fall 17 percent below last year.

Peanut crushings during August-March 1980/81 lagged year-earlier levels by 43 percent. However, use of peanut oil is ahead of last year, reflecting a stock drawdown. Oil prices have dropped from around 47 cents per pound in mid-January (crude, Southeast mills) to 32 cents (domestic) and 40 cents (export). The decline follows CCC offers and sales of Segregation Three peanuts.

U.S. peanut exports are running well below 1979/80 and may fall even further the rest of the season, reflecting short supplies and higher prices.

The U.S. loan rate for 1981-crop quota peanuts is \$455 per short ton, the same as 1980. The loan rate for "additional" peanuts is also held at the 1980 rate of \$250 per ton. Many growers have contracted to sell all or a portion of their crop for prices well in excess of the loan rates.

The seed situation varies throughout production areas, ranging from near adequate to critical. State regulations have been waived in North Carolina to allow sales of seed with germination as low as 50 percent. In March CCC sold 4,500 tons of Segregation III peanuts for seed use.

Table 4—Peanuts: U.S. acreage planted by States

State	1980	1981 ¹	1981 as a percentage of 1980
	1,000 acres		Percent
Alabama	210.0	220.0	105
Florida	65.0	65.0	100
Georgia	530.0	560.0	106
Mississippi	7.5	8.0	107
New Mexico	8.8	8.8	100
North Carolina	169.0	181.0	107
Oklahoma	123.0	123.0	100
South Carolina	15.0	16.0	107
Texas	310.0	315.0	102
Virginia	104.0	112.0	108
U.S.	1,542.3	1,608.8	104.3

¹Prospective plantings report of March 19, 1981.

Table 5—Flaxseed: U.S. acreage planted by States

State	1980	1981 ¹	1981 as a percentage of 1980
	1,000 acres		Percent
Minnesota	140	105	75
North Dakota	380	350	92
South Dakota	285	210	74
Texas	4	1	25
U.S.	809	666	82.3

¹Prospective plantings report of March 19, 1981.

1980/81 ANIMAL FATS SITUATION AND OUTLOOK

LARD

Lard output for October-February totaled 497 million pounds, down from 520 million during the same period in 1979/80. For all of 1980/81, lard production will probably drop to about 1.1 billion pounds, compared with 1.2 billion last season. Most of this reduction will take place in the remaining months of this season due to reduced hog slaughter. However, some reduction is due to a lower lard yield per hog, which dropped from 12.5 pounds for all of 1980 to 12.2 pounds in February. Reduced feeding, due to relatively higher feed cost is partly responsible for this lower lard yield per hog.

Domestic disappearance of lard during October-February totaled 444 million pounds compared with 462

million a year earlier. For the entire 1980/81 season, domestic disappearance of lard is expected to be 1.0 billion pounds, down from 1.1 billion last marketing year. Lard exports this season are running 20 percent ahead of last year. A decline in lard prices has helped increase exports.

Lard prices (loose, tanks, Chicago) have declined this season from 24 cents in October to 19.5 cents per pound in early April. The lower price is due to strong competition in the edible fats and oils markets from palm oil and other edible oils. Lard prices should strengthen as the season progresses due to lower expected hog slaughter for the remainder of the season.

TALLOW

Production of inedible tallow/grease for the 1980/81 marketing year is projected to decline moderately from last year due primarily to reduced hog slaughter. Increased poultry slaughter will offset some of the expected decline.

Domestic use of inedible tallow/grease in 1980/81 is running at about the same level as last year and domestic use for the entire season is expected to total about 3 billion pounds, the same as last year. The major domestic markets for inedible tallow/grease are in animal feeds, fatty acids and soap. Exports in 1980/81 are up slightly from last year, but for the entire season may be slightly under last year's 3.1 billion pounds.

Inedible tallow prices (bleachable, fancy, Chicago) have

remained at about 18 cents a pound since early January. It is anticipated that with an upswing in the economy later this year and the increased industrial activity that accompanies it, that tallow prices may rise. Higher petrochemical feed stock prices should also strengthen the demand for inedible tallow and grease.

Edible tallow production for October-February was 469 million pounds, compared with 367 million for this period in 1979/80. Edible tallow production continues to increase and in a relatively short time may become as important as lard. Edible tallow is primarily used in shortening. Edible tallow prices has declined this season from 23 cents per pound in October to 19.5 cents in early April, due to large world vegetable oil stocks.

Trend Soybean Yields

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ABSTRACT: Trends in soybean yields for the five major producing regions are examined. For 1981 the trend yields range from 22.4 to 36.0 bushels per acre with a national average of 30.7 bushels per acre. Based on these trends and the *Prospective Plantings* report of March 19th, it appears that around 2,100 million bushels of soybeans will be harvested this fall.

KEYWORDS: Soybeans, soybean yields, trend yields, regional soybean yields.

This article examines trend soybean yields in the major producing regions of the United States¹. This is the first of two special articles dealing with soybean yields. This article focuses on trends in yields while the next article will examine the effect of weather and other variables upon yields.

In the fall of 1978, U.S. farmers harvested 63.6 million acres of soybeans with yields averaging 29.4 bushels per acre. Total production that year was a record 1,869 million bushels. In comparison, last year's 67.8 million harvested acres produced only 1,817 million bushels of soybeans due to the unusually low yields caused by the drought. The importance of yields in determining production is clearly illustrated when these 2 years are compared. Had yields in 1980 been equal to those of 1978, last year's production would have been 176 million bushels larger than it actually was and soybean farm prices for 1980/81 would be considerably lower than they currently are—from \$1.25 to \$1.50 a bushel.

Trend yields of this type are especially useful for obtaining early forecasts of production possibilities for the upcoming crop year. This type of information is useful in forming expectations of the probable ranges in supply, use, and prices of soybeans and soybean products for the next crop year. For example, if soybean yields differ from the trend yield by 1 bushel per acre, this will translate into a change in average farm price of an estimated 50 to 60 cents per bushel. Yields were examined on a regional basis due to the differences across regions in production practices, weather patterns, soybean varieties, and other factors.

For each region trend yields, expected planted and harvested acreage, and expected production are presented. In addition, the possible deviation of actual yields from

trend is discussed for each region. Finally, the change in the trend from the 1954-1964 period to the 1965-1979 period is examined and trend yields for 1985 and 1990 are presented.

Atlantic Coast

Based on a 1965-1979 trend the Atlantic Coast region can expect average soybean yields of 28.8 bushels per acre for the summer of 1981, table 6. The March 19th *Prospective Plantings* report indicates that 1.4 million acres of soybeans will be planted in this region. On average, this would result in about 1.37 million harvested acres.² Based on this acreage and the trend yield for the Atlantic Coast, the region could produce around 39 million bushels of soybeans this summer.

The trend yield discussed above does not take into account any effects of weather or other factors upon yields. As a result, the actual yields for 1981 will probably be somewhat different from the trend of 28.8 bushels per acre. The standard error presented in Table 6 gives an indication of the variability of actual yields about the trend. In a "normal" year (say, 2 out of 3 years) actual yields will be within one standard error of the trend yield. A "normal" year for 1981 would have yields between 25.6 and 32.0 bushels per acre (28.8 ± 3.2). This would place production for the region between 35 and 44 million bushels. In an "unusual" year (say, 1 out of 3 years) yields will deviate from trend more than one standard error. If 1981 is an "unusual" year, you can expect yields to deviate from trend between 3.2 and 6.4 bushels per acre causing production to change by as much as 8.8 million bushels. An "extreme" year (say, 1 out of 20 years) is one in which yields deviate from trend by more than two standard errors. For the Atlantic Coast region, an "extreme" year would have yields deviating from trend by more than 6.5 bushels per acre.

¹ The major regions are Atlantic Coast with Virginia, Maryland and Delaware; Southeast with Georgia, Alabama, North Carolina, and South Carolina, South Central with Arkansas, Louisiana, Mississippi, Tennessee, and Kentucky, Eastern Corn Belt with Illinois, Indiana, Ohio, and Michigan; and Western Corn Belt with Iowa, Minnesota, Missouri, Kansas, Nebraska, South Dakota, and North Dakota. Other States producing soybeans include Florida, New York, New Jersey, Oklahoma, Pennsylvania, Texas, and Wisconsin.

² In an average year 98 percent of planted soybean acreage is harvested.

Table 6—Soybean yields and trends

Region and State	Actual and trend yields								Standard Error ¹	Annual increase In soybean yields	
	Year									Period	
	1960	1970	1978	1979	1980	1981 ¹	1985 ¹	1990 ¹		1954-64	1965-79
	<i>Bushels per acre</i>										
Atlantic Coast	23.9	21.4	29.3	29.3	19.5	28.8	30.5	33.0	3.2	-.13	.46
Delaware	24.0	21.0	28.0	30.0	20.0	29.1	31.0	33.5	4.1	-.10	.50
Maryland	26.0	24.0	32.0	30.0	24.0	31.1	33.0	34.5	4.0	-.02	.43
Virginia	22.5	20.0	28.0	28.5	15.0	26.6	28.0	30.0	3.0	.10	.41
Southeast	20.9	22.3	21.1	25.2	14.8	22.4	22.5	22.5	2.2	.71	.02
Alabama	24.0	23.0	21.0	25.0	15.0	22.5	22.5	22.0	2.0	.40	-.06
Georgia	17.0	23.0	17.5	28.0	12.0	23.0	23.5	24.0	3.9	.89	.08
North Carolina	22.5	24.0	24.0	23.5	18.5	22.9	22.5	22.5	2.1	.68	-.07
South Carolina	19.0	20.0	22.0	24.0	14.0	21.3	21.5	22.0	2.7	.96	.10
South Central	21.6	23.0	24.2	28.5	18.3	25.1	26.0	27.0	1.6	.48	.19
Arkansas	21.0	22.5	24.5	28.0	16.0	24.4	25.0	26.0	2.3	.37	.20
Kentucky	22.0	27.0	30.0	32.5	23.0	30.6	32.0	33.5	1.9	.57	.34
Louisiana	24.0	24.0	25.0	28.0	21.0	26.7	27.5	29.0	2.0	.27	.25
Mississippi	22.0	22.5	21.5	29.0	16.0	22.9	23.0	23.5	2.4	.56	.06
Tennessee	22.5	23.0	23.5	27.0	19.0	24.1	24.0	24.5	1.7	.63	.05
Eastern Corn Belt	25.9	30.3	33.3	36.9	34.5	36.0	38.0	41.0	2.7	.33	.53
Illinois	26.0	31.0	33.5	39.0	33.5	36.8	38.5	41.0	3.2	.45	.48
Indiana	27.0	31.0	34.5	36.0	36.0	36.6	39.0	42.0	2.9	.41	.60
Michigan	20.0	26.5	24.0	29.5	32.0	27.0	28.5	30.0	2.9	.08	.32
Ohio	24.5	28.5	33.0	35.5	36.0	35.5	38.0	41.5	2.9	-.04	.66
Western Corn Belt	22.2	27.2	33.3	33.7	32.9	33.2	35.5	38.0	2.8	.55	.56
Iowa	25.5	32.5	37.5	37.5	39.0	38.0	40.5	43.5	2.6	.54	.61
Kansas	21.5	15.0	18.0	26.5	16.5	22.1	22.0	22.5	4.2	1.04	.02
Minnesota	19.5	26.0	36.0	32.0	32.0	34.0	37.5	42.0	3.7	.03	.89
Missouri	21.5	25.5	28.5	31.5	25.0	28.5	29.5	31.0	3.2	.65	.25
Nebraska	28.0	22.0	34.0	34.0	30.0	32.5	34.5	37.5	4.8	.85	.53
North Dakota	13.0	15.0	27.5	27.0	17.5	23.0	25.0	27.0	4.4	.19	.46
South Dakota	17.0	17.5	30.5	33.0	26.0	30.9	34.5	39.0	4.0	.58	.91
United States	23.5	26.7	29.4	32.1	26.8	30.7	32.0	34.0	2.4		

¹Based on 1965-1979 trend.

Using the above definitions of a normal, unusual, and extreme year, 1978 and 1979 were normal years in the Atlantic Coast region while 1980 was an extremely low year for yields.

Over the 1965-1979 period, soybean yields in the Atlantic Coast region increased about half a bushel per acre per year. This contrasts with the 1954-1964 period when yields decreased by about a tenth of a bushel per year. If recent trends continue, by 1985 soybean yields in the Atlantic Coast region could be around 30.5 bushels per acre and 33 bushels by 1990.

Southeast

The 1965-1979 trend soybean yield for the Southeast region for 1981 is 22.4 bushels per acre. The *Prospective Plantings* report indicates that farmers will plant about 8.6 million acres of soybeans in the Southeast this summer which would result in about 8.4 million harvested acres. This acreage and the trend yield would result in production of about 188 million bushels of soybeans this summer.

The standard error of soybean yields in the Southeast is 2.2 bushels per acre. By definition a normal year will see yields deviating from trend by 2.2 bushels or less,

causing production to fluctuate from trend by as much as 19 million bushels. An unusual year could see yields deviating from trend by as much as 4.4 bushels per acre which could cause production to fluctuate by as much as 38 million bushels. An extreme year for yields would see them deviating from trend by over 4.4 bushels causing production to fluctuate by over 38 million bushels.

Based on the standard error for soybean yields in the Southeast, 1978 was a normal year, 1979 was an unusually high year for yields, and 1980 was an extremely low year for yields.

The trend for soybean yields in the Southeast has gone from a period of rapid increases to one of virtually no growth today. In the 1954-1964 period yields increased at about two-thirds of a bushel per acre per year. Today this increase has stopped. Over the 1965-1979 period yields have remained constant at slightly over 22 bushels per acre. Due to the lack of growth in soybean yields in the Southeast region, the trend yield for 1985 and 1990 is about 22.5 bushels per acre.

South Central

The 1965-1979 trend for soybean yields in the South Central region for 1981 is 25.1 bushels per acre. Indica-

tions are that farmers will be planting about 16.6 million acres in the South Central region this summer. This would result in roughly 16.3 million harvested acres. Based on this acreage and the trend yields, the South Central region could produce about 409 million bushels of soybeans this summer.

Soybean yields in the South Central region tend to deviate from trend less than any other region, with a standard error of 1.6 bushels per year. If 1981 is a normal year, then yields will be in the 23.5 to 26.7 range. An unusual year could see yields in the South Central region deviating from trend by as much as 3.2 bushels. If 1981 turns out to be another extreme year, yields in the area will deviate from trend by more than 3.2 bushels, and production could fluctuate by over 50 million bushels.

Based on the definitions presented above for normal, unusual, and extreme years, 1978 was a normal year. Both 1979 and 1980 were extreme years. Yields were extremely high in 1979 and extremely low in 1980.

Over the 1954-1964 period, soybean yields increased at an annual rate of about a half a bushel per acre per year. More recently, 1964-1979, this growth has slowed to about one-fifth of a bushel per year. Based on the recent trend, soybean yields in the South Central region could be around 26 bushels per acre by 1985 and about 27 bushels by 1990.

Eastern Corn Belt

For 1981 the Eastern Corn Belt has the highest trend yield of any region in the country at 36 bushels per acre. If farmers plant 18 million acres of soybeans as the *Prospective Plantings* report indicates, they will harvest about 17.7 million acres this summer. This acreage and the trend yield indicate that production in this region could be around 637 million bushels.

The standard error of the deviation from trend for soybean yields in the Eastern Corn Belt is 2.7 bushels per acre. If 1981 is a normal year, one can expect soybean yields to be in the 33.3 to 38.7 range. Yields can be expected to deviate from trend by as much as 5.5 bushels if 1981 is an unusual year. An extreme year for 1981 could see yields deviating from trend by more than 5.5 bushels. With 17.3 million harvested acres, an extreme year could see production vary by almost 100 million bushels in the Eastern Corn Belt region this year.

The last 3 years in the Eastern Corn Belt have been normal in terms of the deviation of actual yields from trend. Soybean yields increased at an annual rate of about one-third of a bushel per acre per year during the 1954-1964 period. More recently, 1965-1979, yields in the region have been increasing about half a bushel per acre per year. If the recent trend continues, by 1985 soybean yields could be around 38 bushels per acre and by 1990 about 41 bushels.

Western Corn Belt

The 1981 trend yield for soybeans in the Western Corn

Belt is 33.2 bushels per acre. Indications are that farmers will be planting around 22.8 million acres of soybeans in this region this summer. This would result in around 22.3 million harvested acres. Based on this acreage and the trend yield, it appears the Western Corn Belt could produce around 740 million bushels this summer.

With a standard error of 2.8 bushels per acre and a normal year in 1981 you could see soybean yields in the 30.4 to 36 bushel range. An unusual year could see yields deviating from trend by as much as 5.6 bushels per acre while an extreme year would see yields varying by over 5.6 bushels. Production in a normal year would vary less than 62 million bushels. If 1981 is an extreme year, however, production in this region can be expected to vary by over 125 million bushels.

The Western Corn Belt has experienced normal yields the last 3 years. Soybean yields have increased about half a bushel per acre over the entire 1954-1979 period. If the trend growth in yields for this region continues yields could be around 35.5 bushels per acre by 1985 and about 38 bushels by 1990.

United States Summary

After aggregating across regions and accounting for the other States which were excluded from the above five regions³, the trend soybean yield for the United States this summer is 30.7 bushels per acre. If farmers plant 69.8 million acres of soybeans as the *Prospective Plantings* report indicates, they will harvest around 68.4 million acres. Production for the United States, based solely on the above harvested acreage and trend yields, should be around 2,100 million bushels this fall. After accounting for the standard deviation of actual soybean yields about the trend yield, it appears that if 1981 is a normal year production will be between 1,935 and 2,265 million bushels. If, however, soybean yields nationwide are unusually low, production could be between 1,770 and 1,935 million bushels.

If each region of the country continues to account for the same proportion of harvested acreage as it did in 1980 and if the trends in yields established over the 1965-1979 period continue into the 1980's, the national trend yield for soybeans will be 32 bushels per acre by 1985 and 34 bushels by 1990.

Summary

Yields are increasing about a half a bushel per acre in the Atlantic Coast, the Eastern Corn Belt and the Western Corn Belt regions. In the South Central region yields are increasing about a fifth of a bushel per year while there is no growth in yields in the Southeast region. Overall, the growth in yields in the South is lag-

³ All excluded States combined account for less than 3 percent of U.S. production of soybeans.

ging well behind the growth in yields in other areas of the country. If this continues throughout this decade, soybean yields in the Eastern Corn Belt region could be double those in the Southeast region by the early 1990's.

This analysis did not take into account the effects of

weather or other variables upon soybean yields. The purpose was to look at the trend in yields. Trend yields of this type are especially useful for obtaining early forecasts of production for the upcoming crop year and for long term analysis of supply response.

Table 7—Soybeans: Supply disappearance, and price, U.S. 1977-1981

Year beginning Sept. 1	Supply			Disappearance				Price		
	Beginning stocks	Pro- duction	Total	Crush	Exports	Seed and feed	Residual ¹	Total	Ending stocks	Season average farm
<i>Million bushels</i>										<i>Dol./bu.</i>
1977	103	1,767	1,870	927	700	69	13	1,709	161	5.88
1978	161	1,869	2,030	1,018	739	76	23	1,856	174	6.66
1979	174	2,268	2,442	1,123	875	68	17	2,083	459	6.28
1980 ²	359	1,817	2,176	1,050	760	70	21	1,901	275	7.55
1981 ²	275									

¹Mostly statistical discrepancies. ²Forecast.**Table 8—Soybean meal: Supply, disappearance, and price, U.S. 1977-1981**

Year beginning October 1	Supply				Disappearance				Price		
	Production			Stocks Oct 1 ¹	Total	Exports	Shipments to U.S. - territories	Domestic ²	Total	Ending stocks	44 percent protein, bulk, Decatur
	Total	Animal Feed	Edible protein								
<i>1,000 short tons</i>											<i>Dol./ton</i>
1977	22,371	21,961	410	228	22,599	6,080	67	16,276	22,356	243	164.20
1978	24,354	23,986	386	243	24,597	6,610	75	17,720	24,330	267	190.10
1979	27,105	26,808	297	267	27,372	7,908	85	19,238	27,146	226	181.90
1980 ³	25,094	—	—	226	25,320	6,700	—	18,350	25,050	270	225.00
1981 ³				270							

¹Stocks at processor plants. ²Includes shipments to U.S. territories. ³Forecast.**Table 9—Soybean oil: Supply, disappearance, and price, U.S. 1977-1981**

Year beginning Oct. 1	Supply			Disappearance			Price			
	Produc- tion	Beginning stocks	Total	Exports	Shipments to U.S. territories	Domestic ¹	Total	Ending stocks	Crude, Decatur	
<i>Million pounds</i>										<i>Cents/lb.</i>
1977	10,288	771	11,059	2,057	80	8,273	10,330	729	24.6	
1978	11,323	729	12,052	2,334	75	8,942	11,276	776	27.4	
1979	12,105	776	12,881	2,690	80	8,981	11,671	1,210	24.3	
1980 ²	11,550	1,210	12,760	1,750	—	9,150	10,900	1,860	23.5	
1981 ²		1,860								

¹Includes shipments to U.S. territories. ²Forecast.

Table 10—Soybeans: Supply, disappearance, and price, monthly, U.S. 1978-1981

Date	Supply	Disappearance		Ending stocks at mills	Price	
	Beginning stocks at mills	Crush	Exports		Average received by farmers	
					<i>Million bushels</i>	<i>Dol./bu.</i>
1978/79						
September	37.873	71.431	37.971	31.889	6.20	
October	31.889	89.273	87.551	138.415	6.26	
November	138.415	89.616	101.681	149.355	6.41	
December	149.355	96.369	70.591	127.343	6.49	
January	127.343	90.579	76.979	112.358	6.58	
February	112.358	81.501	53.161	124.049	6.99	
March	124.049	89.037	83.536	120.872	7.16	
April	120.872	83.312	67.668	96.716	7.06	
May	96.716	86.920	46.799	71.091	7.06	
June	71.091	82.777	40.866	72.996	7.36	
July	72.996	80.600	32.680	55.594	7.36	
August	55.594	76.403	39.671	37.460	7.07	
Total ¹		1,017.818	739.154			
1979/80						
September	37.460	75.877	40.862	39.206	6.81	
October	39.206	95.807	88.854	166.528	6.35	
November	166.528	101.408	118.123	184.518	6.30	
December	184.518	104.392	78.305	163.295	6.27	
January	163.295	106.622	85.778	145.438	6.39	
February	145.438	100.019	72.990	130.711	6.20	
March	130.711	102.246	69.353	118.634	5.94	
April	118.634	91.971	81.297	95.782	5.63	
May	95.782	93.828	74.173	79.746	5.76	
June	79.746	82.661	58.693	75.737	5.91	
July	75.737	84.854	49.076	73.936	6.75	
August	73.936	83.691	57.669	56.860	7.18	
Total ¹		1,123.382	875.173			
1980/81						
September	56.860	81.602	41.402	80.390	7.59	
October	80.390	97.762	60.262	166.038	7.68	
November	166.038	98.484	75.042	171.971	8.18	
December	171.971	94.132	74.488	138.742	7.80	
January	138.742	92.153	71.726	125.887	7.80	
February	125.887	79.599	55.457	105.409	7.50	
March ²	105.409	89.114		96.680		
April ²	96.680					
May						
June						
July						
August						
Total ¹						

¹Totals may not match annual totals due to rounding.²Preliminary.

Table 11 – Soybean meal: Supply, disappearance, and price, monthly, U.S. 1978-1981

Date	Supply			Disappearance			Price	
	Production ¹	Beginning stocks ²	Total	Domestic use	Exports	Total	Ending stocks ²	44 percent protein, Decatur
								<i>Dol./ton</i>
<i>1,000 short tons</i>								
1978/79								
October	2,114.7	242.9	2,357.6	1,640.6	477.5	2,118.1	239.5	176.80
November	2,135.4	239.5	2,374.9	1,661.5	507.5	2,169.0	205.9	177.10
December	2,292.2	205.9	2,498.1	1,470.5	738.5	2,209.0	289.1	188.75
January	2,158.3	289.1	2,447.4	1,546.2	659.0	2,205.2	242.2	184.90
February	1,954.8	242.2	2,197.0	1,445.5	526.5	1,972.0	225.0	190.90
March	2,121.6	225.0	2,346.6	1,204.7	903.7	2,108.4	238.2	194.50
April	1,989.0	238.2	2,227.2	1,455.0	507.5	1,962.5	264.7	191.10
May	2,065.1	264.7	2,329.8	1,639.0	453.6	2,092.6	237.2	188.00
June	1,979.3	237.2	2,216.5	1,474.6	502.9	1,977.5	239.0	209.60
July	1,898.4	239.0	2,137.4	1,331.4	543.7	1,875.1	262.3	201.60
August	1,823.9	262.3	2,086.2	1,502.2	410.3	1,912.5	173.7	188.90
September	1,821.7	173.7	1,995.4	1,348.9	379.1	1,728.0	267.4	188.60
Total ⁴	24,354.4	—	—	17,720.1	6,609.8	—	—	190.06
1979/80								
October	2,285.8	267.4	2,553.2	1,805.2	513.7	2,318.9	234.3	181.40
November	2,433.3	234.3	2,667.6	1,920.3	552.1	2,472.4	195.2	183.10
December	2,506.1	195.2	2,701.3	1,703.4	757.4	2,460.8	240.5	188.00
January	2,555.1	240.5	2,795.6	1,804.7	806.6	2,611.3	184.3	180.20
February	2,400.0	184.3	2,584.3	1,462.9	930.1	2,393.0	191.3	174.25
March	2,454.4	191.3	2,645.7	1,513.5	881.1	2,394.6	251.1	164.60
April	2,203.1	251.1	2,454.2	1,566.9	661.2	2,228.1	226.1	154.20
May	2,247.1	226.1	2,473.2	1,423.5	750.7	2,174.2	299.0	166.50
June	1,987.8	299.0	2,286.8	1,426.7	558.0	1,984.7	302.1	160.90
July	2,058.4	302.1	2,360.5	1,524.1	568.6	2,092.7	267.8	187.90
August	2,011.5	267.8	2,279.3	1,638.1	379.1	2,017.2	262.1	207.40
September	1,962.5	262.1	2,224.6	1,449.1	549.9	1,999.0	225.6	234.50
Total ⁴	27,105.1	—	—	19,238.4	7,908.5	—	—	181.91
1980/81								
October	2,325.7	225.6	2,551.3	1,856.9	452.0	2,308.9	242.4	246.40
November	2,366.5	242.4	2,608.9	1,774.1	453.4	2,227.5	381.4	261.40
December	2,248.5	381.4	2,629.9	1,628.7	751.5	2,380.2	249.7	223.70
January	2,207.8	249.7	2,457.5	1,554.3	660.6	2,214.9	242.6	223.50
February ³	1,905.3	242.6	2,147.9	1,140.0	759.8	1,899.8	248.1	212.50
March ³	2,105.8	248.1	2,353.9			2,078.3	275.6	216.90
April		275.6						
May								
June								
July								
August								
September								
Total ⁴								

¹Includes production of millfeed (hull meal) ²Includes stocks of millfeed. ³Preliminary. ⁴Totals may not match annual totals due to rounding.

Table 12—Soybean oil: Supply, disappearance, and price, monthly, U.S. 1978-1980

Date	Supply			Disappearance			Ending stocks	Price Crude, tanks, F.O.B. Decatur
	Beginning stocks Oct. 1	Pro- duction	Total	Domestic	Exports	Total		
<i>Million pounds</i>								<i>Cents/lb.</i>
1978/79								
October	728.638	984.273	1,712.911	795.494	103.991	899.485	813.426	27.2
November	813.426	974.789	1,788.215	787.904	163.220	951.124	837.091	24.9
December	837.091	1,050.392	1,887.438	721.936	194.947	916.883	970.555	25.8
January	970.555	989.059	1,959.614	797.094	230.303	1,027.397	932.217	25.8
February	932.217	902.274	1,834.491	617.721	273.950	891.671	942.820	27.9
March	942.820	982.248	1,925.068	715.769	205.117	920.886	1,004.182	27.8
April	1,004.182	939.613	1,943.795	759.605	196.900	956.505	987.290	26.7
May	987.290	964.699	1,951.989	798.686	110.336	909.022	1,042.967	26.3
June	1,042.967	930.513	1,973.480	746.144	304.426	1,050.570	922.910	27.6
July	922.910	899.896	1,822.806	732.649	174.793	907.442	915.364	29.1
August	915.364	856.658	1,772.022	754.731	202.223	956.954	815.068	29.2
September	815.068	848.949	1,664.017	713.968	174.291	888.259	775.758	30.0
Total ¹	—	11,323.363	—	8,941.701	2,334.497	—	—	27.4
1979/80								
October	775.758	1,020.324	1,796.082	841.559	134.737	976.296	819.786	27.9
November	819.786	1,067.867	1,887.653	801.646	218.683	1,020.329	867.324	27.8
December	867.324	1,101.961	1,969.285	675.189	263.954	934.143	1,030.142	26.2
January	1,030.142	1,115.332	2,145.474	809.029	181.255	990.284	1,155.190	23.6
February	1,155.190	1,064.899	2,220.089	757.021	258.529	1,015.550	1,204.539	23.4
March	1,204.539	1,098.117	2,302.656	794.529	332.248	1,126.777	1,175.879	22.1
April	1,175.879	993.699	2,169.578	709.204	276.687	985.891	1,183.687	20.3
May	1,183.687	1,009.793	2,193.480	714.252	334.414	1,048.666	1,144.814	20.8
June	1,144.814	901.602	2,046.416	617.957	202.567	820.524	1,225.892	21.6
July	1,225.892	927.793	2,153.685	725.576	123.080	848.656	1,305.029	26.2
August	1,305.029	913.801	2,218.830	774.803	181.056	955.859	1,262.971	25.9
September	1,262.971	890.127	2,153.098	759.983	182.945	942.928	1,210.170	26.1
Total ¹	—	12,105.315	—	8,980.748	2,690.155	—	—	24.3
1980/81								
October	1,210.170	1,080.226	2,290.396	796.957	119.583	916.540	1,373.856	25.0
November	1,373.856	1,077.611	2,451.467	690.070	94.146	784.216	1,667.251	26.7
December	1,677.251	1,024.270	2,701.521	833.843	129.891	963.734	1,737.787	23.7
January	1,737.787	1,010.554	2,748.341	732.255	116.019	848.274	1,900.067	23.0
February ²	1,900.067	887.847	2,787.914	689.818	121.040	810.858	1,977.056	22.0
March ²	1,977.056							23.1
April								
May								
June								
July								
August								
September								
Total ¹								

¹Totals may not match annual totals due to rounding.

²Preliminary.

Table 13—Soybeans: Monthly value of products per bushel of soybeans processed, and spot price spread, 1978-1980.

Date	Value of products per bushel						Total value	Percent of value		Price	Spread between value of products and soybean price
	Soybean oil			Soybean meal				Soybean oil	Soybean meal	No. 1 yellow III. points	
	Yield	Price	Value	Yield	Price	Value				Dollars	
<i>Pounds</i>	<i>Cents</i>	<i>Dollars</i>	<i>Pounds</i>	<i>Cents</i>	<i>Dollars</i>	<i>Percent</i>	<i>Dollars</i>				
1979/80											
Sept.	11.19	30.3	3.39	48.02	188.60	4.53	7.92	43	57	7.04	0.88
Oct.	10.65	27.9	2.97	47.72	181.40	4.33	7.30	41	59	6.56	0.74
Nov.	10.53	27.8	2.93	47.46	183.10	4.35	7.28	40	60	6.52	0.76
Dec.	10.56	26.2	2.77	48.01	188.00	4.51	7.28	38	62	6.53	0.75
Jan.	10.46	23.6	2.47	47.93	180.20	4.32	6.79	36	64	6.36	0.43
Feb.	10.65	23.4	2.49	47.99	174.25	4.18	6.67	37	63	6.42	0.25
Mar.	10.74	22.1	2.37	48.01	164.60	3.91	6.28	38	62	6.07	0.21
Apr.	10.81	20.3	2.19	47.92	154.20	3.69	5.88	37	63	5.80	0.08
May	10.76	20.8	2.23	47.90	166.50	3.99	6.22	36	64	6.04	0.18
June	11.00	21.6	2.38	48.09	169.90	4.09	6.47	37	63	6.10	0.37
July	10.93	26.2	2.86	48.52	187.90	4.56	7.42	39	61	7.22	0.20
Aug.	10.92	25.9	2.83	48.08	207.40	4.99	7.82	36	64	7.45	0.37
1980/81											
Sept.	10.91	26.1	2.85	48.10	234.50	5.84	8.49	34	66	8.13	0.36
Oct.	10.94	25.0	2.74	47.11	246.40	5.80	8.54	32	68	8.27	0.27
Nov.	10.94	26.7	2.92	48.06	261.40	6.28	9.20	32	68	8.91	0.29
Dec.	10.88	23.7	2.58	47.79	223.70	5.35	7.93	31	69	7.73	0.20
Jan.	10.97	23.0	2.52	47.92	223.50	5.36	7.88	32	68	7.57	0.31
Feb.	11.13	22.0	2.45	47.87	212.50	5.09	7.54	31	69	7.34	0.20
Mar.	11.12	23.1	2.57	47.26	216.90	5.13	7.70	33	67	7.37	0.33
Apr.											
May											
June											
July											
Aug.											
Sept.											

Table 14—Soybeans, soybean meal, and soybean oil: production, exports, and imports by major countries, 1976-1981¹

	1966/77	1977/78	1978/79	1979/80 Prelim.	1980/81 Est.
	<i>1,000 metric tons</i>				
SOYBEANS					
PRODUCTION					
UNITED STATES	35,070	48,097	50,859	61,722	49,453
BRAZIL	12,513	9,534	10,236	15,040	15,750
ARGENTINA	1,400	2,700	3,700	3,650	3,900
OTHER	10,332	11,839	12,417	13,064	13,034
TOTAL	59,315	72,170	77,212	93,476	82,137
GROSS EXPORTS²					
UNITED STATES	15,351	19,061	20,115	23,818	20,684
BRAZIL	2,671	830	638	1,225	1,575
ARGENTINA	569	1,972	2,803	2,325	3,100
E.C. ³	120	237	351	286	285
OTHER	461	383	735	766	868
TOTAL	19,172	22,483	24,642	28,420	26,512
GROSS IMPORTS²					
E.C. ³	9,136	11,129	12,027	12,531	11,585
MEXICO	550	580	633	783	1,200
JAPAN	3,602	4,260	4,132	4,401	4,100
SPAIN	1,835	2,179	2,237	3,208	3,000
CHINA, MAINLAND	253	188	261	810	600
CHINA, TAIWAN	663	959	1,111	930	900
SOVIET UNION	1,364	906	1,765	1,065	1,500
EASTERN EUROPE	262	630	744	820	754
OTHER	2,057	2,238	2,975	3,213	3,674
TOTAL	19,722	23,069	25,885	27,435	27,313
SOYBEAN MEAL					
PRODUCTION					
UNITED STATES	16,772	20,296	22,094	24,589	22,765
BRAZIL	6,048	7,652	7,451	8,118	10,100
ARGENTINA	392	492	551	557	621
E.C. ³	7,078	8,647	9,075	9,648	8,749
MEXICO	621	780	767	1,020	1,170
JAPAN	2,225	2,542	2,645	2,660	2,623
SPAIN	1,455	1,705	1,787	2,425	2,425
CHINA, TAIWAN	504	618	680	642	593
SOVIET UNION	1,563	999	1,152	1,318	1,473
EASTERN EUROPE	495	779	904	1,119	1,046
OTHER	4,680	5,145	5,074	6,224	6,309
TOTAL	41,833	49,655	52,780	58,320	57,874
GROSS EXPORTS²					
UNITED STATES	4,136	5,516	5,996	7,174	6,078
BRAZIL	4,621	6,311	5,447	5,476	7,489
ARGENTINA	275	292	370	350	313
E.C. ³	1,818	2,689	3,142	3,363	3,665
OTHER	280	371	482	576	767
TOTAL	11,130	15,179	15,437	16,939	18,312
GROSS IMPORTS²					
E.C. ³	5,647	7,833	8,430	8,761	9,248
MEXICO	190	56	103	225	250
JAPAN	314	340	283	326	325
SPAIN	425	482	360	54	5
SOVIET UNION	0	0	52	500	1,000
EASTERN EUROPE	3,010	3,170	3,530	3,825	4,000
OTHER	2,046	2,537	2,907	3,043	3,208
TOTAL	11,632	14,418	15,665	16,734	18,036
SOYBEAN OIL					
PRODUCTION					
UNITED STATES	3,891	4,666	5,136	5,490	5,239
BRAZIL	1,444	1,827	1,768	1,972	2,431
ARGENTINA	81	103	118	116	136
E.C. ³	1,595	1,895	2,019	2,121	1,935
JAPAN	532	598	621	612	603
SPAIN	313	374	398	540	540
CHINA, TAIWAN	116	142	156	156	136
SOVIET UNION	367	221	253	289	323
EASTERN EUROPE	109	177	204	244	231
OTHER	988	1,097	1,207	1,371	1,459
TOTAL	9,436	11,100	11,880	12,903	13,033
GROSS EXPORTS²					
UNITED STATES	702	933	1,059	1,220	794
BRAZIL	410	675	557	548	872
ARGENTINA	57	64	52	84	92
E.C. ³	643	806	909	934	835
SPAIN	134	272	313	369	440
OTHER	26	39	66	89	103
TOTAL	1,972	2,789	2,956	3,244	3,136
GROSS IMPORTS²					
E.C. ³	369	449	455	421	416
INDIA	440	510	555	690	500
PAKISTAN	97	181	260	250	260
CHINA, MAIN	85	184	122	100	120
MID-EAST/NAFR	320	509	541	576	557
LATIN AMERICA	267	331	316	475	443
OTHER	380	523	484	538	771
TOTAL	1,958	2,687	2,733	3,050	3,067

¹Except for Argentina and Brazil, all data are shown on a local marketing year, for major bean producer/exporter countries, northern hemisphere marketing years begin in the late months of the second year, for bean importing countries, and for major bean producing countries which are not major exports, marketing years generally begin January 1 of the second year. For Argentina and Brazil, the October-September estimates are included in the totals. ²World exports will not necessarily equal imports due to differing marketing years and because some minor countries are not included in the totals. ³European community includes Greece for 1980/81 analysis year. Greece is not included in EC total prior to 1980/81.

Table 15—Sunflower Seed: Supply, disappearance, and price, 1976-1981

Year beginning Sept. 1	Supply				Disappearance				Price	
	Beginning stocks Sept. 1	Pro-duction	Imports	Total	Crush	Non-Oil usage + seed	Exports	Total	Ending stocks	Average received by farmers
<i>1,000 metric tons</i>										
1976	—	499	2	501	35	106	337	478	23	243.00
1977	23	1,330	3	1,356	219	118	942	1,279	77	224.00
1978	77	1,823	7	1,907	292	159	1,366	1,817	90	236.00
1979	90	3,484	10	3,584	547	144	1,820	2,511	1,073	200.00
1980	1,073	1,816	21	2,910	815	135	1,350	2,300	610	235.00
1981	610									

Table 16—Sunflower meal: Supply disappearance, and price, 1976-1981

Year beginning Oct. 1	Supply			Disappearance				Price	
	Beginning stocks Oct. 1	Pro-duction	Total	Domestic	Exports	Total	Ending stocks	Average ¹	
<i>1,000 metric tons</i>									
1976	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1977	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
1978	4	180	184	180	—	180	4	136.00	
1979	4	359	363	359	—	359	4	100.00	
1980	4	489	493	489	—	489	4	125.00	
1981	4								

Table 17—Sunflower oil: Supply disappearance, and price, 1976-80

Year beginning Oct. 1	Supply			Disappearance				Price	
	Beginning stocks Oct.1	Pro-duction	Total	Domestic	Exports	Total	Ending stocks	Average	
<i>1,000 metric tons</i>									
1976	8	14	22	7	15	22	—	243.00	
1977	—	86	86	49	34	83	3	—	
1978	3	115	118	70	41	111	7	728.00	
1979	7	224	231	96	86	182	49	560.00	
1980	49	326	375	75	250	325	50	575.00	
1981	50								

Table 18—Cottonseed: Supply, disappearance, and price, U.S., 1977-81

Year beginning August 1	Supply			Disappearance				Price	
	Beginning stocks	Production	Total	Crush	Exports	Other	Total	Ending stocks	Average received by farmers
<i>1,000 short tons</i>									<i>Dol./ton</i>
1977	283	5,521	5,804	4,313	41	633	4,987	817	70.30
1978	817	4,269	5,086	4,127	16	423	4,566	520	114.00
1979	520	5,778	6,298	4,230	94	916	5,240	1,058	121.00
1980 ¹	1,058	4,360	5,418	4,150	150	903	5,203	215	125.00
1981 ¹	215								

¹Forecast.**Table 19—Cottonseed meal: Supply, disappearance, and price, U.S. 1977-1981**

Year beginning October 1	Supply			Disappearance				Price	
	Beginning stocks	Production	Imports	Total	Domestic	Exports	Total	Ending stocks	Average, Memphis
<i>1,000 short tons</i>									<i>Dol./ton</i>
1977	59	2,083	4	2,146	1,962	115	2,077	69	139.68
1978	69	1,885	9	1,963	1,762	150	1,912	51	164.80
1979	51	2,049	7	2,107	1,879	175	2,054	53	164.13
1980 ¹	53	1,910	2	1,965	1,775	150	1,925	40	200.00
1981 ¹	40								

¹Forecast.**Table 20—Cottonseed oil: Supply, disappearance, and price, U.S. 1977-1981**

Year beginning October 1	Supply			Disappearance				Price	
	Beginning stocks	Production	Total	Domestic	Exports	Total	Ending stocks	Average, valley points	
<i>Million pounds</i>									<i>Cents/lb.</i>
1977	86	1,453	1,539	696	758	1,454	85	25.4	
1978	85	1,282	1,367	620	661	1,281	86	31.6	
1979	86	1,423	1,509	659	728	1,387	122	25.4	
1980 ¹	122	1,328	1,450	550	800	1,350	100	25.0	
1981 ¹	100								

¹Forecast.

Table 21 – Cottonseed: Supply, disappearance, and price, monthly, U.S. 1978-1981

Date	Supply	Disappearance		Ending stocks	Price
	Beginning stocks Aug. 1	Crush	Exports		Average received by farmers
	<i>1,000 short tons</i>				<i>Dol./ton</i>
1978/79					
August	816.7	311.6	6.3	668.0	84.00
September	668.0	253.9	3.8	614.0	97.00
October	614.0	348.3	.7	1,286.4	111.00
Novmeber	1,286.4	422.6	.2	1,666.9	117.00
December	1,666.9	391.9	.2	2,251.5	118.00
January	2,251.5	417.8	.4	2,173.1	119.00
February	2,173.1	403.6	1.0	1,919.5	118.00
March	1,919.5	425.5	.5	1,583.9	—
April	1,583.9	354.7	.4	1,276.7	—
May	1,276.7	325.2	1.0	975.8	—
June	975.8	255.1	1.1	721.0	—
July	721.0	216.5	—	520.2	—
Total ¹		4,126.7	15.6		
1979/80					
August	520.2	257.5	.2	380.1	125.00
September	380.1	174.6	.1	349.6	121.00
October	349.6	304.3	.3	1,157.4	125.00
Novmeber	1,157.4	394.3	.7	2,577.2	122.00
December	2,577.2	379.1	2.5	3,237.6	115.00
January	3,237.6	441.8	2.6	3,246.3	113.00
February	3,246.3	388.0	2.5	2,968.2	113.00
March	2,968.2	454.3	2.0	2,543.0	—
April	2,543.0	373.6	11.8	2,140.2	—
May	2,140.2	388.4	26.6	1,720.0	—
June	1,720.0	358.8	16.6	1,342.0	—
July	1,342.0	315.4	27.8	1,058.4	—
Total ¹		4,230.1	93.7		
1980/81					
August	1,058.4	330.3	34.8	811.9	110.00
September	811.9	306.1	35.8	610.0	115.00
October	610.0	364.9	34.0	1,171.9	124.00
November	1,171.9	426.0	4.8	1,658.5	133.00
December	1,658.7	400.4	9.1	1,904.5	132.00
January	1,904.5	439.8	2.6	1,754.9	126.00
February ²	1,754.9	377.4	.3	1,656.4	122.00
March ²	1,656.4				
April					
May					
June					
July					
Total ¹					

¹Totals may not match annual totals to rounding.²Preliminary.

Table 22—Cottonseed meal: Supply, disappearance, and price, monthly, U.S. 1978-1980

Date	Supply			Total	Disappearance			Ending stocks	Price
	Beginning stocks	Pro-duction	Imports		Domestic	Exports	Total		Bulk, Memphis
									<i>1,000 short tons</i>
									<i>Dol./ton</i>
1978/79									
October	69.0	162.4	—	231.4	178.7	4.1	182.8	48.6	164.00
November	48.6	197.1	—	245.7	174.3	17.2	191.5	54.2	166.25
December	54.2	184.3	—	238.5	176.5	2.8	179.3	59.2	167.50
January	59.2	197.5	—	256.7	199.1	11.3	210.4	46.3	169.50
February	46.3	193.1	—	239.4	154.6	31.9	186.5	52.9	161.90
March	52.9	201.2	1.8	255.9	176.3	4.0	180.3	75.6	156.90
April	75.6	166.5	—	242.1	132.8	10.5	143.3	98.8	141.25
May	98.8	155.7	5.8	260.3	129.0	4.2	133.2	127.1	143.00
June	127.1	122.2	.4	249.7	100.2	22.1	122.3	127.4	171.90
July	127.4	105.8	—	233.2	99.4	16.6	116.0	117.2	178.50
August	117.2	119.7	.8	237.7	127.7	13.5	141.2	96.5	173.75
September	96.5	79.3	.2	176.0	113.0	11.5	124.5	51.5	183.10
Total ¹	—	1,884.8	9.0	—	1,761.6	149.7	—	—	164.80
1979/80									
October	51.5	145.9	.3	197.7	147.2	18.7	165.9	31.8	183.00
November	31.8	183.4	3.4	218.6	163.1	28.8	191.9	26.7	183.75
December	26.7	173.0	.1	199.8	165.4	6.8	172.2	27.6	195.00
January	27.6	201.0	—	228.6	199.0	1.1	200.1	28.5	167.00
February	28.5	178.0	—	206.5	161.4	22.2	183.6	22.9	156.25
March	22.9	204.0	2.9	229.8	176.0	12.7	188.7	41.1	136.25
April	41.1	168.9	—	210.0	144.0	26.2	170.2	39.8	120.50
May	39.8	181.6	—	221.4	134.4	18.1	152.5	68.9	119.75
June	68.9	167.8	—	236.7	129.9	16.6	146.5	90.2	128.10
July	90.2	148.5	—	238.7	156.2	10.2	166.4	72.3	157.00
August	72.3	152.3	—	224.6	148.1	7.2	155.3	69.3	198.40
September	69.3	144.0	—	213.3	154.4	6.4	160.8	52.5	224.50
Total ¹	—	2,048.4	6.7	—	1,879.1	175.0	—	—	164.13
1980/81									
October	52.5	170.3	—	222.8	153.9	10.8	164.7	58.1	211.90
November	58.1	202.1	—	260.2	178.3	14.9	193.2	67.0	230.00
December	67.0	191.1	—	258.1	190.9	10.4	201.3	56.8	224.00
January	56.8	204.9	—	261.7	175.0	12.3	187.3	74.4	205.60
February ²	74.5	176.3	—	250.8	126.9	37.8	164.7	86.1	178.75
March ²	86.1	173.7	—	259.8				108.0	185.00
April	108.0								
May									
June									
July									
August									
September									
Total ¹									

¹Totals may not match annual totals due to rounding.²Preliminary.

Table 23—Cottonseed oil: Supply, disappearance, and price, U.S. 1978-1981

Date	Supply			Disappearance			Ending stocks	Price Crude, valley points
	Beginning stocks Oct. 1	Pro- duction, crude	Total	Domestic	Exports	Total		
	<i>1,000 pounds</i>							<i>Cents/lb.</i>
1978/79								
October	84.782	108.845	193.627	66.355	25.881	92.236	101.391	29.3
November	101.391	134.045	235.436	83.163	29.233	112.396	123.040	28.2
December	123.040	123.503	246.543	36.991	82.462	119.453	127.090	28.2
January	127.090	134.354	261.444	52.610	56.672	109.282	152.159	28.3
February	152.159	127.991	280.150	55.993	71.232	127.225	152.925	32.1
March	152.925	135.292	288.217	57.304	89.875	147.179	141.038	33.8
April	141.038	115.002	256.040	61.720	51.255	112.975	143.065	33.2
May	143.065	103.740	246.805	53.300	52.540	105.840	140.965	31.6
June	140.965	86.289	227.254	24.623	63.145	87.768	139.486	32.6
July	139.486	73.774	213.260	32.600	63.755	96.355	116.905	35.2
August	116.905	85.513	202.418	67.205	18.060	85.265	117.153	33.9
September	117.153	53.516	170.669	27.719	56.558	84.277	86.392	33.3
Total ¹	—	1,281.864	—	619.583	660.668	—	—	31.6
1979/80								
October	86.392	98.562	184.954	57.794	34.034	91.828	93.126	30.2
November	93.126	126.509	219.635	41.725	48.920	90.645	128.990	27.9
December	128.990	119.910	248.900	77.661	26.956	104.617	144.283	26.8
January	144.283	142.848	287.131	79.158	34.821	113.979	173.152	24.2
February	173.152	125.678	298.830	71.912	28.059	99.971	198.859	24.8
March	198.859	145.109	343.968	20.718	110.478	131.196	212.772	22.4
April	212.772	119.837	332.609	72.962	70.989	143.951	188.658	20.4
May	188.658	125.545	314.203	43.355	105.017	148.372	165.831	20.9
June	165.831	116.775	282.606	84.124	31.373	115.497	167.109	22.3
July	167.109	104.237	271.346	56.451	70.338	126.789	144.551	27.8
August	144.551	104.934	249.485	33.212	77.642	110.854	138.631	29.0
September	138.631	93.068	231.699	20.464	89.303	109.767	121.932	27.5
Total ¹	—	1,423.012	—	659.536	727.930	—	—	25.4
1980/81								
October	121.932	116.372	238.304	62.035	53.690	115.725	122.579	27.2
Novmeber	122.579	130.453	253.032	33.565	66.610	100.175	152.857	27.8
December	152.857	122.277	275.134	57.934	47.122	105.056	170.078	26.8
January	170.078	131.708	301.786	41.181	77.033	118.214	183.572	25.3
February ²	183.572	118.928	302.500	79.328	29.251	108.579	193.921	24.2
March ²	193.921							25.3
April								
May								
June								
July								
August								
September								
Total ¹								

¹Totals may not match annual totals due to rounding.

²Preliminary.

Table 24—Peanuts (farmers' stock basis): Supply, disappearance, and price, U.S. 1976-80¹

Year beginning August 1	Supply				Disappearance					Price	
	Beginning stocks	Production	Imports	Total	Crush	Exports	Food	Seed, feed loss, and shrinkage	Total	Average received by farmers	Support
<i>Million pounds</i>											
1976	1,060	3,739	1	4,800	1,108	783	1,789	513	4,193	20.0	20.70
1977	608	3,715	1	4,324	487	1,025	1,838	392	3,742	21.0	21.50
1978	581	3,952	1	4,534	527	1,141	1,996	284	3,948	21.1	² 21.00
1979	586	3,968	1	4,555	571	1,065	2,028	264	3,927	20.7	² 21.00
1980	628	2,296	202	3,126	340	525	1,645	316	2,826	23.5	² 22.75
1981	300	3,820	1	4,121							² 22.75

^{s6}¹ Supply and disappearance forecast for latest year. ^{s6}² Quota peanuts.

Table 25—Flaxseed: Supply, disappearance, and price, U.S. 1976-1980.

Year beginning June 1	Supply				Disappearance					Price
	Beginning stocks	Production	Imports	Total	Crush	Exports	Seed	Residual	Total	Average received by farmers
<i>1,000 bushels</i>										
1976	4,890	7,580	2,168	14,638	10,677	196	1,043	-239	11,677	7.08
1977	2,961	14,280	859	18,100	11,615	1,001	557	-388	12,785	4.54
1978	5,315	8,614	1,557	15,486	13,009	91	724	-924	12,900	5.74
1979	2,586	12,014	1,916	16,516	12,425	174	650	-1,751	11,498	5.96
1980 ¹	5,018	8,128	1,659	14,805	11,700	70	535	—	12,305	7.25
1981 ¹	2,500									

¹ Forecast.

Table 26—Prices: Wholesale, farm, and index numbers of wholesale prices, by months, 1980-1981

Item	1980		1981		
	Nov.	Dec.	Jan.	Feb.	Mar.
Wholesale prices, cents per pound, for Fats and Oils					
Butter, Creamery, Grade A, (92-and 93-score) Bulk, New York	153.6	155.6	154.4	154.8	154.9
Castor Oil, No. 1, Brazilian, Tanks, Imported, New York	45.3	46.0	46.7	45.9	45.0
Coconut Oil, Crude, Tank Cars, Pacific Coast	29.4	27.8	26.3	25.0	23.9
Corn Oil, Crude, Tank Cars, F.O.B., Decatur	27.5	28.0	26.3	25.0	23.8
Cottonseed Oil, Crude, Tank Cars, F.O.B., Valley	27.8	26.8	25.3	24.2	25.3
Grease, A White, Tank Cars, Delivered, Chicago	18.5	18.5	18.0	17.0	17.3
Linseed Oil, Raw, Tank Cars, Minneapolis	29.0	29.8	32.8	32.0	31.3
Margarine, Yellow, Quarters, F.O.B., Chicago	40.3	40.2	35.8	35.9	37.1
Olive Oil, Imported, Edible, Drums, New York	87.5	86.5	87.0	85.0	81.3
Palm Kernel Oil, CIF, Bulk, U.S. Ports	42.0	42.0	42.0	42.0	42.0
Palm Oil, CIF, Bulk, U.S. Ports	27.1	26.9	27.5	28.3	25.5
Peanut Oil, Crude, Tank Cars, F.O.B., Southeast Mills	48.7	49.1	47.7	39.3	34.1
Rapeseed Oil, Refined, Denatured, Tanks, New York	46.0	46.0	56.4	59.0	59.0
Safflower Oil, Tanks, New York	46.0	46.0	46.0	46.0	46.0
Shortening, All Vegetable, Hydrogenated, 440-Pound Drums, New York	43.3	42.3	39.3	46.3	46.3
Soybean Oil, Crude, Tank Cars, F.O.B., Decatur	26.7	23.7	23.0	22.0	23.1
Tallow, Edible, Loose, Chicago	23.0	23.3		28.1	29.3
Tallow, Inedible, Number; Delivered, Chicago	15.0	15.4	15.8	15.8	16.0
Tung Oil, Imported, Drums, F.O.B. New York	65.5	67.2	69.6	68.0	64.0
Prices received by U.S. farmers					
Oilseeds					
Cottonseed, United States Average (short ton)	133.00	132.00	126.00	122.00	
Flaxseed, United States Average (bushel)	7.03	7.59	7.54	7.48	
Peanuts, United States Average (Farmers' Stock)(100 lb.)	27.10	37.10	49.20		
Soybeans, No. 1, Yellow, Chicago (bushel)	8.71	7.71	7.49	7.32	
Soybeans, United States Average (bushel)	8.18	7.80	7.80	7.50	
Sunflower Seed, United States Average (cwt.)	10.80	10.90	11.00	10.70	
Oilmeals (Bulk—Short Tons)					
Cottonseed Meal, 41 Percent Protein, Memphis	230.00	225.60	205.60	178.75	185.00
Linseed Meal, 34 Percent Protein, Minneapolis	195.00	177.00	161.25	150.00	150.00
Peanut Meal, 50 Percent Protein, F.O.B. Southeastern Mills	290.30	—	—	203.00	212.80
Soybean Meal, 44 Percent Protein, Decatur	261.40	223.70	223.50	212.50	210.40
Soybean Meal, 49-50 Percent Protein, Decatur	277.10	239.10	240.00	229.00	226.00
Sunflower Meal, 28 Percent Protein	137.50	118.00	105.00	93.75	107.00
Index Numbers of Wholesale Prices, Fats and Oils, 1967=100					
All Fats and Oils	288	287	281	278	282
All Fats and Oils, Except Butter	322	321	314	309	314
Group by Origin:					
Animal Fats	255	257	253	252	255
Vegetable Oils, Domestic	158	152	149	140	142
Vegetable Oils, Foreign	244	228	237	218	226
Group by Use					
Butter	222	222	221	221	221
Lard, Refined	271	278	263	263	263
Food Fats Other Than Butter	217	214	209	209	212
Food Fats Other Than Butter and Lard	174	165	163	152	156
All Edible Fats and Oils	208	206	202	202	204
Soap Fats	318	326	320	298	305
Drying Oils	183	192	191	188	188
Other Industrial					
All Industrial	295	303	298	280	285
Crude	216	205	200	188	191
Edible Vegetable Oils, Grouped by Degree of Processing:					
End Products					
Refined	214	217	212	202	202
Margarine	238	237	235	241	241
Shortening, 3-pound Tin	231	231	235	235	235
Shortening, 3-pound Tin	264	270	270	268	268
Shortening, 440-pound Drum	208	204	189	223	223

Sources: Compiled from Chemical Market Reporter, Wall Street Journal, Feedstuffs, Reports of the Crop Reporting Board, Agricultural Marketing Service, and Bureau of Labor Statistics.

LIST OF TABLES

	Page
1. Soybean: U.S. acreage planted by Region and States	5
2. Stocks on farm, off-farm and total in all positions	5
3. Sunflowers: By varietal type, U.S. acreage planted by States	7
4. Peanuts: U.S. acreage planted by States	8
5. Flaxseed: U.S. acreage planted by States	8
6. Soybean yields and trends	11
7. Soybeans: Supply, disappearance, and price, U.S. 1977-1981	14
8. Soybean meal: Supply, disappearance, and price, U.S. 1977-1981	14
9. Soybean oil: Supply, disappearance, and price, U.S. 1977-1981	14
10. Soybeans: Supply, disappearance, and price, monthly, U.S. 1978-1981	15
11. Soybean meal: Supply, disappearance, and price, monthly, U.S. 1978-1981	16
12. Soybean oil: Supply, disappearance, and price, monthly, U.S. 1978-1981	17
13. Soybeans: Monthly value of products per bushel of soybeans processed, and spot price spread 1978-1980	18
14. Soybeans, soybean meal, and soybean oil: 1976-1981 production, exports and imports by major countries	19
15. Sunflower Seed: Supply, disappearance, and price, 1976-1981	20
16. Sunflower meal: Supply, disappearance, and price, 1976-1981	20
17. Sunflower oil: Supply, disappearance, and price, 1976-1981	20
18. Cottonseed: Supply, disappearance, and price, U.S. 1977-1981	21
19. Cottonseed meal: Supply, disappearance, and price, U.S. 1977-1981	21
20. Cottonseed oil: Supply, disappearance, and price, U.S. 1977-1981	21
21. Cottonseed: Supply, disappearance, and price, monthly, U.S. 1978-1981	22
22. Cottonseed meal: Supply, disappearance, and price, monthly, U.S. 1978-1981	23
23. Cottonseed oil: Supply, disappearance, and price, monthly, U.S. 1978-1981	24
24. Peanuts (farmers' stock basis): Supply, disappearance, and price, U.S. 1976-1980	25
25. Flaxseed: Supply, disappearance, and price, U.S. 1976-1980	25
26. Prices: Wholesale, farm and index numbers of wholesale prices, by months, 1980-1981	26

Weights and Measures

1 short ton	= 2,000 pounds		
1 metric ton	= 2,204.622 pounds		
1 short ton	= .907185 metric tons	1 metric ton	= 1.102311 short tons
1 acre	= .404694 hectares	1 hectare	= 2.4710 acres
<i>60-pound bushel of soybeans</i>			
1 bushel	= .03 short ton	1 short ton	= 33.333 bushels
1 bushel	= .0272155 metric ton	1 metric ton	= 36.7437 bushels
<i>56-pound bushel of flaxseed</i>			
1 bushel	= .028 short ton	1 short ton	= 35.714 bushels
1 bushel	= .0254 metric ton	1 metric ton	= 39.368 bushels

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