

Peanuts: A Crop That Belies Its Name in the Southeast

by Gene D. Sullivan

Peanuts is an important crop in Southeastern agriculture. Most of the U. S. crop is produced within the Southeastern states. In fact, one-half is produced on 700,000 acres within Alabama and Georgia.

The off-farm processing and handling of peanuts is a sizable industry that contributes thousands of jobs to the economy during the peak season and generates substantial payrolls within concentrated areas of the Sixth Federal Reserve District.¹

Financing institutions provide several hundred million dollars of credit to purchase expensive machinery and to cover annual production and operating expenses of growers and processors. In addition, bankers finance the inventories of processors for a six-to-nine-month period, extending credit equivalent to about 80 percent of the crop's market value. The business is more than just peanuts in the Southeast.

At the Farm Level

Peanut production occupied about 1.5 million acres in the United States and produced over \$500 million in farm cash receipts in 1972 (see Table 1). Over one-half of this acreage, nearly 800,000 acres, is located in Sixth District states, and Georgia alone accounts for over 500,000 of those acres.

District farm cash receipts from peanuts reached \$317 million in 1972, well over one-half of the U. S. total. The peanut enterprise is the largest single income-producing crop in Georgia, and it is second only to cotton in Alabama. But it is not so important in Florida and Mississippi, the other peanut-producing District states.

Permanent Legislation

Unlike producers of most other agricultural commodities, peanut growers have their own special government program. It continues from year to year without renewed authorization from Congress and is, therefore, nonexpiring legislation. Under this program, as long as producers vote for marketing quotas, acreages that can be planted in peanuts are rigidly controlled. The Secretary of Agriculture establishes a national

¹The Sixth Federal Reserve District includes all of Alabama, Florida, and Georgia and parts of Louisiana, Mississippi, and Tennessee.

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acreage allotment deemed sufficient to meet the production quota; this national allotment is then allocated to growers. A producer must have an acreage allotment based on historical production. These allotments can be transferred from one farm to another either through sales or leasing.

Reflecting the profitability of peanut growing, acreage allotments have become quite valuable. In early 1973, land sold with an attached peanut acreage allotment commanded around \$400 more per acre than comparable land without an allotment.

The Commodity Credit Corporation guarantees a price to cooperating growers that may range from 75 to 90 percent of parity. (Parity is a mathematical construct which shows the relationship of the prices farmers receive to the prices they pay for commodities used in production.) A guaranteed price at 75 percent of parity means that farmers, by law, receive a price for their peanuts that is at least 75 percent of production input prices. Peanut prices have been maintained at the legal minimum parity level (75 percent) for the past three years.

Peanut farmers have generally been able to increase land productivity through the use of new technology at a faster rate than input costs have

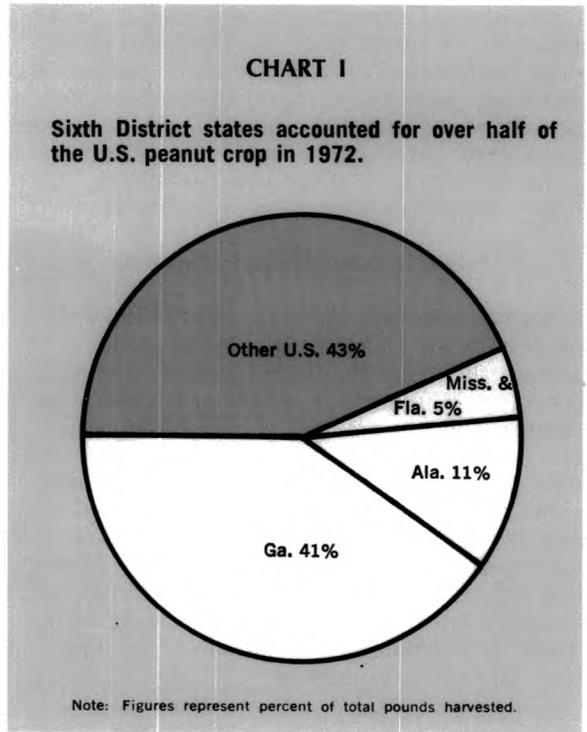


TABLE 1
Peanuts Harvested For Nuts

<u>Year</u>	<u>Ga.</u>	<u>Fla.</u>	<u>Ala.</u>	<u>Miss.</u>	<u>District States</u>	<u>U. S.</u>
Acreage						
1,000 Acres						
1969	502.0	53.0	187.0	2.0	744.0	1,451
1970	507.0	53.0	190.0	4.0	754.0	1,467
1971	510.0	54.0	194.0	9.5	767.5	1,454
1972	512.0	54.0	197.0	10.0	773.0	1,486
1973	512.0	54.0	200.0	9.5	775.5	1,502
Yield						
Pounds Per Acre						
1969	1,855	1,605	1,525	600	1,750	1,743
1970	2,220	2,075	1,660	1,100	2,060	2,031
1971	2,490	2,590	2,070	1,735	2,380	2,066
1972	2,620	2,550	1,870	1,600	2,410	2,203
1973*	2,600	2,550	1,850	1,700	2,280	2,257
Production¹						
1,000 Pounds						
1969	946,270	85,065	285,175	1,200	1,317,710	2,528,744
1970	1,125,540	109,975	315,400	4,400	1,555,315	2,979,465
1971	1,269,900	139,860	401,580	16,483	1,827,823	3,005,118
1972	1,341,440	137,700	368,390	16,000	1,863,530	3,274,761
1973*	1,331,200	137,700	370,000	16,150	1,855,050	3,389,230
Cash Receipts						
\$1,000						
1969	\$122,295	\$10,684	\$35,232	\$ 192	\$168,403	\$321,564
1970	142,113	12,829	47,121	456	202,519	369,883
1971	166,810	19,205	52,757	1,418	240,190	423,888
1972	228,509	23,807	62,894	2,185	317,395	518,025

Source: USDA, *Agricultural Statistics 1972; Crop Production*, Sept. 1973; *Farm Income State Estimates*, 1959-1972.

*Indicated

¹Not necessarily the product of yield times acres because of rounding and data revision.

increased; and peanut production, even at prices set at 75 percent of parity, has continued to be quite profitable. For example, at the program's inception, yields were ranging from 700 to 800 pounds per acre. With the use of output-increasing technology, growers are now able to average yields of well over 2000 pounds per acre, nearly three times production in the 1930's.

Peanut Production and Marketing

A beginning farmer obtains the right to grow peanuts by either leasing or buying peanut acreage allotments from other growers within his county. Allotments from several farms may be combined in one area if a grower so desires. It is usually advantageous for a grower to have his total peanut acreage within a concentrated area rather than have several small fields scattered over different farms. In this way, it has often been possible to transfer peanut acreage from less desirable to more productive land and thereby increase yields from fixed acreage allotments, in addition to the efficiencies resulting from large scale operations.

Preparing land for planting peanuts involves about the same operations used for other crops. The application of chemical herbicides, both prior to planting and after the plants have

emerged, has largely replaced weeding by hand and has also minimized cultivation.

Seed is the most expensive single item in peanut production (see Table 2). Fertilization and disease and insect control through the application of chemical insecticides and fungicides are also major expenditures in production. They have contributed importantly to increasing yields per acre. Preharvest expenditures account for approximately three-fourths of out-of-pocket production costs.

Harvesting expenses remain significant although they do not account for as high a proportion of production costs as once was the case. Harvesting techniques have changed drastically over the past 20 years. There is no longer any hand stacking of peanuts or picking nuts from the vines by hand. Formerly, harvest began in late August and September and ended around January; since the advent of mechanical combines for picking, harvest is usually complete within four to six weeks after it begins in late August.

Mechanized harvesting techniques have improved over time. Originally harvesting involved digging the peanuts or plowing them out of the ground, placing them in windrows for drying to 10- to 12-percent moisture, combining them, and eventually bagging and bringing the crop into receiving points.

New technology now eliminates several steps. After digging, the peanuts are allowed to dry only for a day or two until they reach about 20 percent moisture, at which point they are combined and brought directly into the shelling facility where mechanical drying further reduces moisture content to just under 10 percent. Federal and state grading of peanuts occurs at the sheller, and the farmer receives payment for his peanuts based on the grade of his crop. The percentage of sound, mature kernels (SMK) plays a large role in determining peanut grade and the price received.

At this point in the marketing process, the farmer has the option of placing his peanuts under a Commodity Credit Corporation (CCC) loan or selling outright to a sheller. Most usually, farmers are ready to sell their peanuts at the time of delivery because only rarely would they ever realize a price increase as a result of storing their crop with the CCC.

Peanuts are usually placed in CCC storage only at the recommendation of the sheller after he has received all peanuts for which he has edible markets. Growers then place their crop under CCC loan to be kept in warehouses (typically at the sheller's facilities which are rented to the government for peanut storage). The grower ordinarily views this action as a sale to the government.

In the event that the sheller foresees his peanut supply for the year running short, he can redeem

TABLE 2
Estimated Inputs and Variable Costs
of Producing Peanuts

	Quantity	Value	Estimated ¹ Total Cost District States
(Per Acre)			
Preharvest Inputs:			
Labor	5.31 hrs.	\$ 6.22	\$ 4,808,060
Seed	65.00 lbs.	22.10	17,083,300
Fertilizers	7.75 cwt.	11.23	8,680,790
Lime	.167 ton	1.29	997,170
Power & Equipment	3.09 hrs.	8.38	6,477,740
Insecticides		6.04	4,668,920
Herbicides		6.08	4,699,840
Interest on Money	\$56.78	2.65	2,048,450
Total Preharvest Cost		\$63.99	\$49,464,270
Harvest Inputs:			
Labor	3.33 hrs.	3.91	3,022,430
Power & Equipment	2.33 hrs.	6.97	5,387,810
Cleaning & Drying	.98 ton	10.78	8,332,940
Commodity Commission	.98 ton	.98	757,540
Total Harvest Cost		\$22.64	\$17,500,720
Total Variable Cost		\$86.63	\$66,964,990

Source: USDA, Selected U. S. Crop Budgets, Yields, Inputs, and Variable Costs, Volume 1, Southeast Region, ERS 457, April 1971.

¹Cost per acre multiplied by total acreage of peanuts harvested in District states in 1972.

TABLE 3
Total Supply and Disposition of Shelled Peanuts
United States

Year	Total ¹ Supply	Exports	Crushed ²	Edible Use	Consumption Per Capita (lbs.)
1955	945,726	1,318	182,534	595,414	3.6
1960	1,329,856	57,172	258,009	794,596	4.4
1965	1,776,937	175,221	373,547	969,893	5.0
1966	1,796,708	166,316	418,292	947,326	4.8
1967	1,885,587	148,295	483,992	1,004,966	5.0
1968	1,853,202	79,623	491,447	1,031,940	5.1
1969	1,851,037	100,051	437,127	1,062,857	5.2
1970	2,106,556	213,027	600,855	979,467	4.8

¹ Includes stocks, production, and imports.

² Used as peanut oil and meal.

Source: USDA, *Agricultural Statistics 1972*.

the amount he needs to fill domestic markets for edible peanuts from CCC storage. He would do this by repaying the loan plus about 5 percent for interest and handling charges. Because most shellers make slightly over-optimistic estimates of the peanuts they can sell, there is a tendency to overbuy from growers at the beginning of the season in order to avoid the more expensive procurement from CCC at a later date. Thus, redemptions of CCC loans on peanuts are rare.

After the sheller purchases peanuts from the farmer, he begins processing them immediately in order to finish as quickly as possible. Shellers typically operate their plants five days per week for a period of five to six months. Ideally, shellers are finished with processing operations by January, but quite often the season continues into April.

Cost per unit is reduced if the processing season is spread over additional months because it serves to keep employees on hand permanently and it allows the use of equipment to be spread over a longer time. On the other hand, if the harvesting season should stretch much beyond April, the peanuts processed would be labeled as old crop and become less valuable. Any peanuts processed in excess of those for which sales have been made are put into cold storage where they can be kept with little or no deterioration. Old crop peanuts are more difficult to sell, however, as the time of the prospective new crop approaches.

Peanut Utilization

Of total peanuts used domestically, about 50 percent are processed into peanut butter, approximately 25 percent are consumed in salted form, and another 25 percent go into candies.

Most peanuts have already been marketed to manufacturers well before they are harvested. The sheller usually markets over the period

of a year, based on fall delivery. Any marketings for postfall delivery typically carry some price markup to reflect carrying charges. Manufacturers, therefore, try to buy in advance as much as possible to escape these extra charges.

Total U. S. peanut production has, in fact, rapidly grown beyond the amount that can be used for edible purposes in the United States. Less than 60 percent of the crop is marketed in edible form domestically (see Table 3). The balance of annual production enters CCC storage under nonrecourse loans to farmers.

Ownership of the remaining 40 percent of the U. S. peanut crop is eventually taken over by the CCC and disposed of at bid auction. Domestic shellers can and do bid for CCC peanuts, but they must either crush and process them into peanut meal and peanut oil (both usually lower-valued products than edible peanuts)² or they must export the nuts whole to foreign buyers at world market prices.

The World Market

Although the United States accounts for a minor proportion of total global production (see Table 4), it has reportedly become the number one supplier of peanuts sold for edible purposes around the world. This is largely attributed to the intensive effort directed towards producing an attractive product for which foreigners have keen demand. In particular, the attention that U. S. growers have paid to ridding their product of mold disease has assured foreign buyers of high quality. Dependable quality coupled

²In mid 1973, the demand for peanut oil and meal had advanced to the point that the value of processed peanuts approached the value of peanuts sold for edible purposes. However, this is not expected to be a long-run situation. An early realignment of prices to their historical pattern is anticipated.

TABLE 4
World Acreage and Production of Peanuts

	Harvested Acreage			Production		
	1969	1,000 Acres 1970	1971	1969	1,000 Metric Tons 1970	1971
United States	1,451	1,467	1,454	1,147	1,351	1,357
Brazil	1,516	1,375	¹	754	928	800
Nigeria	3,000	3,000	3,000	1,360	775	1,000
Senegal	2,370	2,440	2,718	800	554	875
China Mainland	4,900	5,190	5,315	2,350	2,650	2,700
India	17,607	18,021	¹	5,130	6,065	5,800
Other	14,416	14,360	¹	5,144	5,005	5,611
World	45,260	45,853	47,244	16,685	17,328	18,143

¹Data unavailable.

Source: USDA, Agricultural Statistics 1972.

with competitive pricing made possible by export subsidies have substantially increased the demand for U. S. peanuts.

A radical change in world price patterns has occurred in 1973 which may further affect the demand for the crop. Until recently, prices hovered around 23.5 cents per pound for edible peanuts sold in the United States and 11.5 cents per pound for those sold in world markets. By mid 1973, however, the price of edible peanuts sold abroad had advanced to about 25 or 26 cents a pound, even exceeding the domestic price.

In view of the current world-wide food and protein meal shortages, industrial spokesmen state that both the domestic and world market prices for edible peanuts may be about 27 cents per pound in the 1973 marketing year. In that eventuality, the price offered to farmers for the current crop would be substantially above the CCC loan rate and the portion of the crop acquired by the CCC is likely to be sharply diminished. Thus, the role of the CCC and the cost of the peanut program in 1973 may be drastically reduced.

Program Costs

The government subsidy to peanut growers becomes evident at the time of the CCC auction sale. Until recently peanuts have been sold at prices substantially below those paid to farmers when the stocks were acquired, resulting in net losses to the CCC (see Table 5). Because yield-increasing technology has boosted production so rapidly while domestic consumption has stabilized, a larger quantity of peanuts has been acquired by the CCC each year and disposed of at a loss. Thus, year by year, until 1973, the peanut program has been growing increasingly costly to the Government.

Projections for increasing losses in the years ahead have led to proposals for alterations in

the peanut program in order to reduce the government outlay. Under normal market conditions, these proposals would reduce the profitability of peanut production to growers who naturally resist them.

Contribution to Off-Farm Businesses

Peanut program changes that substantially reduce acreage, however, would affect more than producers. The economy throughout the growing area would receive a shock from the drastic production curtailment likely to accompany domestic prices that are competitive in the world market over the long run.

The increasing use of nonfarm inputs also represents growing sales of farm supplies by nonfarm businesses in the peanut area. Table 2 shows that peanut farmers' annual variable or out-of-pocket cost for producing peanuts averaged about \$87 per acre in 1970. With recent cost increases, the District's total peanut acreage could easily incur annual farm production expend-

TABLE 5
Peanut Price Support Operations
United States 1955-72

Year	Support Price	Percent of Production Placed Under Support	CCC Realized Net Loss	
	Cents	%	Total \$Million	Per Pound Cents
1955	12.24	20.3	17.1	6.4
1960	10.062	20.5	16.7	5.6
1965	11.20	30.7	44.3	6.4
1970	12.75	36.4	66.3	6.2
1971	13.425	41.3	112.7	8.3
1972	13.95	¹	105.0*	¹

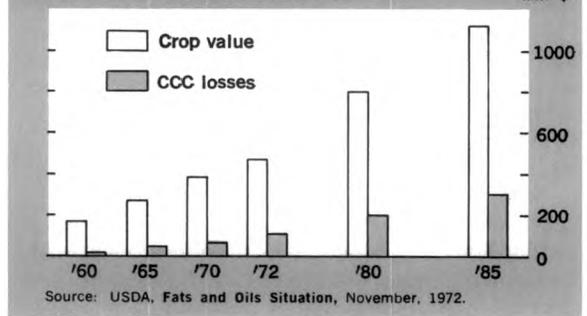
¹Data not available.

*Forecast

Source: USDA, Fats and Oils Situation, November 1972. Agricultural Statistics, 1972.

CHART II

U.S.D.A. projections for continued rapid growth in CCC losses on peanuts have generated proposals for program alterations.



itures of \$70 million or more. This money represents purchases of labor, seed, fertilizers and lime, insecticides, herbicides, fuel, lubricants, machinery maintenance, and repairs. These figures do not include purchases of farm machinery and other fixed investment items. When allowances were made for interest and depreciation on fixed investment, annual costs of outstanding producers were reported as high as \$215 per acre of peanuts produced.

The investment in machinery for each 100 acres of peanuts amounts to approximately \$100,000 or an estimated \$775 million for the District as a whole. Most equipment is replaced, on average, about every five years. Although machinery has some salvage value, the rapid pace of mechanization and increasing prices probably result in annual machinery sales to peanut farmers of well over \$100 million—a sizable source of business to District farm machinery establishments.

Peanut shelling facilities and complementary equipment reflect an estimated investment of at least \$50 million. Employees would number 1750 on a relatively full time basis, running as high as 6500 during peak seasons when peanuts are being delivered from farms to receiving stations. Annual payrolls at shelling facilities and receiving points probably reach as high as \$12 million.

Shellers' operating costs are estimated at \$4.7 million, covering such items as fuel, bags, and other miscellaneous supplies, all of which represent sales volumes of other area businesses. Charges for maintenance, taxes, depreciation, and interest on investment would amount to about \$7.5 million each season. Thus, during the year, the off-farm economy realizes nearly \$25 million of income from the operations of peanut shellers alone.

Figures are not available on the contribution of peanuts to the business volume of various processing and marketing facilities through which they flow after leaving the sheller. However, the various manufacturers of peanut butter, salted peanuts, peanut candies, peanut oil, and peanut meal, as well as the commodity brokers and shippers, undoubtedly also contribute significantly to the region's employment and business volume.

Financing the Industry

Financing institutions have a large stake in each stage of the peanut production and marketing process. Grower financing accounts for a major segment of the loan volume of agricultural lending agencies throughout the peanut belt. Government price guarantees under the parity formula ensure that growers' prices always move up with rising input prices. With the increasing yields that peanut farmers have almost consistently obtained, the program has, in effect, ensured

grower profits as well. As would be expected in such an industry, there is brisk competition among lending agencies for the peanut producer's business.

Typical financial arrangements include production credit averaging about \$75 per acre, which is advanced in the early spring and is repaid from crop receipts around September or October. Thus, the dollar amount used to finance District peanut producers' operating capital requirements for each production season is well over \$50 million. The interest income to lenders from this loan volume is quite substantial, particularly at the high interest rates during the 1973 production season.

Farmers' machinery and equipment needs represent substantial additional capital requirements that are largely met through borrowing. These are intermediate type loans ranging up to five years in term. Allowing for owner's equity and normal loan repayments, an estimated \$250 million of production and harvesting equipment inventory is financed at any given time.

As the harvested crop leaves the farm and enters the processing channels, the inventories acquired by the processors must also be financed. Shellers typically use bank credit to acquire raw product for the coming year's processing. Typical arrangements involve bank financing of about 80 percent of the peanut inventories' value. Warehouse receipts on the stored commodity serve as collateral for the loan. Thus, within the Sixth District, bankers extend credit amounting to about one-half the crop's gross value to finance sheller inventories.

This also has been a relatively safe loan for the banker because the peanuts are on hand in on-site storage bins and have been checked by government crop inspectors and verified to be of the grade specified. Because shellers usually acquire only limited amounts of peanuts in excess of current marketing needs, the risk that

they would be unable to dispose of supplies on hand at cost-covering prices has been minimal.

These inventory or commodity loans to peanut shellers have other attractive features to bankers. Individual lending limits do not apply to commodity loans, so relatively small banks in rural areas are able to make these loans that might otherwise exceed their limits. This credit demand comes at the end of the production season, providing a use for funds when other demands for credit are relaxing.

Bank loans to peanut shellers are not loans to farmers and are not reported as agricultural credit. Thus, many people both in and outside of the banking industry are unaware of this substantial loan volume that is outstanding from six to nine months of each year, a volume which is directly dependent upon agriculture within the area served by each bank.

Information is not available on the extent to which annual operating expenses of peanut processors and manufacturers are financed. However, it is highly likely that banks also play a major role in supplying the capital required for payrolls, supplies, and inventories at each processing establishment from the time the raw product is acquired until the processed product is sold.

Unquestionably, a large number of business establishments and financial institutions in peanut areas are dependent on the peanut industry for sizable portions of their business. Any sharp curtailment in production might create an even greater effect in the off-farm economy than in the farm sector itself.

Some Policy Considerations

Regardless of the program's substantial impact in peanut producing areas, the industry may have to accept some changes if the populace as a whole feels that the subsidy has grown too

expensive. Some cost-reducing program alterations could be made, short of completely abandoning the price support system. Less extreme changes might well be weathered with little disruption of the economy. Evidence of this possibility is that considerable acreages of cotton, soybeans and feed grains are profitably produced within the peanut-growing area. That practically no peanut acreage has been planted to these alternative crops despite their recent profitability increase may indicate that some reductions in support prices and government costs could be accomplished without much decline in peanut acreage.

From a national standpoint, the justification for continuing to subsidize the production of a crop, a large and growing proportion of which has been eventually exported at a loss, is subject to question. Although such a subsidy is not unique to peanut growers, it is true that the major benefits of the program accrue to producers in rather concentrated areas, while the costs are shared by the whole country.

Farmers in other sections of the country are reportedly eager to grow additional peanuts but cannot secure the necessary acreage allotments. If they would be willing to produce peanuts at competitive market prices or even at lower support prices than current growers are willing to accept, there would seem to be some justification for allowing them to do so.

Some observers feel that 1973 market conditions represent a permanent shift in world food demands and that the favorable peanut prices existing in world markets are likely to continue. If that observation should prove correct, then U. S. peanut growers would no longer need costly government supports to maintain profits. That would be a happy solution indeed to a problem that otherwise seems likely to generate growing public concern.

NOW AVAILABLE

Economic Characteristics

A compilation of Sixth Federal Reserve District statistics based on 1970 Census data and intended to depict local area economic structures on the basis of trade and banking areas and Standard Metropolitan Statistical Areas. Single copies available to individuals and banking and educational institutions from the Research Department, Federal Reserve Bank of Atlanta, Atlanta, Georgia 30303.