United States Department of Agriculture

OCS-04G-01

July 2004

Outlook

Electronic Outlook Report from the Economic Research Service

www.ers.usda.gov

Peanut Policy Change and Adjustment Under the 2002 Farm Act

Erik Dohlman, Linwood Hoffman, Edwin Young, and William McBride

Abstract

By eliminating the longstanding peanut marketing quota system, the 2002 Farm Act substantially altered the policy environment for the U.S. peanut sector. Under the marketing quota system, supply controls assured peanut quota holders of receiving high support prices, while requiring that nonquota peanuts be exported or sold into the lower value crush market. Pressured, in part, by increased imports, these supply controls were replaced with the same set of supports available to producers of other program crops. For producers, the transition has been marked by lower peanut prices and reduced, but stabilizing, acreage, and adaptation to an environment with limited price information and marketing strategies. At the same time, it appears that peanut producers are taking advantage of increased planting flexibility and expanding production in higher yielding areas. For many producers, the transition has been cushioned by additional revenue from Government payments and other sources of farm and off-farm income.

Keywords: Peanut policy, marketing quota, 2002 Farm Act, trade, farm income, tariff-rate quota.

Acknowledgments

For their reviews and comments, the authors would like to thank Mark Ash, Robert Dismukes, Joy Harwood, Demcey Johnson, and Kitty Smith of the Economic Research Service, USDA; Carol Goodloe and Larry Salathe of the Office of the Chief Economist, USDA; Keith Menzie of the World Agricultural Outlook Board, USDA; Remy Jurenas of the Congressional Research Service; Dr. Kim Anderson of Oklahoma State University; and Dr. James Pease of Virginia Tech. Much appreciation is also extended to our editor, John Weber, and to Wynnice Pointer-Napper, Shawn Bucholtz, and Vince Breneman for their efforts in designing this report.

Introduction

Until 2002, peanuts had been among a small group of U.S. commodities regulated by marketing quotas. Similar to the tobacco and sugar programs, the peanut program was established during the Great Depression to support and stabilize grower incomes through supply limitations and price supports. With passage of the Farm Security and Rural Investment Act of 2002 (2002 Farm Act), however, the longstanding price support system for peanuts was scrapped. As part of the new program, peanut quota owners received peanut quota buyout payments and peanut producers are now eligible for the same set of supports—marketing loans, direct payments, and counter-cyclical payments—available to producers of other mainstream crops.

What pressures led to this striking change in policy? What has been the experience of the peanut sector following the 2002 Farm Act? And what factors are affecting the transition to a more market-oriented system? Although the circumstances of peanut producers are unique in many ways, their transition to policy change can offer insights for those contemplating similar changes for other crops, such as tobacco *http://www.ers.usda.gov/AmberWaves/September03/Features/USTobaccoIndustry.htm*.

Although the longer term impacts of policy change are still playing out in the peanut sector, some general observations can be made:

- Average farm-level prices and production incentives—as reflected by planted acreage—have declined, compared with pre-2002 levels, but appear to be stabilizing.
- Peanut production is beginning to shift from farms in less productive, traditional peanut-growing areas to farms in higher yielding areas, largely in the Southeast, the result of increased planting flexibility, and perhaps indicating increased production by more efficient producers.
- For producers affected by the policy change, drops in farm-level revenues have been tempered by new sources of Government revenue from the 2002 Farm Act, a diversified crop mix, sources of off-farm income, and an upswing in domestic demand.
- Lower domestic prices stemming from the policy change have dampened import demand, but exports are likely to remain below levels regularly reached in the 1990s.
- Although prices are lower and potentially more variable than under the marketing quota system, producers are adapting to price uncertainty by managing risk through contracting and marketing associations.

How Did the Old Peanut Program Work? Why Was It Changed?

Prior to 2002, the peanut program's marketing quota system placed a limit on the amount of peanuts ("quota" peanuts) that could be sold for the domestic food-use market (e.g., peanut butter, snacks, candy). Any peanuts produced beyond the specific quota level ("additional" peanuts) had to be exported, or diverted into the lower value crush (oil and peanut meal) market. Producers who owned or rented quota rights were assured of receiving high prices based on a Government-established "quota loan rate" of $610 per ton (during 1996-2001). The quota loan rate was well above average production costs, giving producers a strong economic incentive to produce the amount of peanuts they had been allocated under the quota system. The quota level—set at 2.36 billion pounds in 2001/02—was established annually by USDA, based on anticipated demand, and then allocated among quota holders. Producers not controlling quota rights were guaranteed only a low additionals loan rate of $132 per ton (in 2001/02), but they typically grew peanuts under contract for export at world prices (ranging from $320-$460 per ton) and responded primarily to demand in foreign markets. The central component of the program—production or marketing limitations—was established in the 1930s.

Although the peanut quota system faced longstanding opposition from consumer groups, peanut processors, and others opposed to supply controls, the program's overhaul in 2002 was likely influenced by producer groups who recognized that policy change was unavoidable given trade agreements liberalizing U.S. peanut imports.

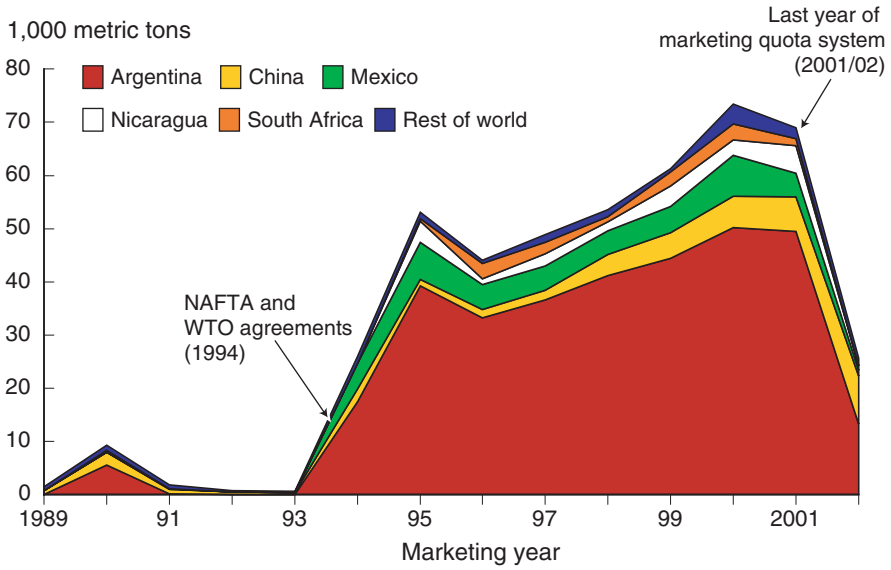
Under the marketing quota system, import restrictions—capped at 1.7 million pounds (less than 1 percent of domestic consumption) prior to 1994— were necessary to prevent an oversupply of peanuts from undercutting domestic support prices.[1] However, under NAFTA (North American Free Trade Agreement) and WTO (World Trade Organization) agreements signed in the mid-1990s, the United States opened its market to gradually increasing peanut imports through tariff-rate quotas (TRQs) (fig. 1). TRQs allow a specific level of imports at a lower "within-quota" tariff rate. Imports beyond that level are charged a much higher "over-quota" tariff.

As part of the current (Uruguay Round) WTO agreement, allowable peanut imports at the lower within-quota tariff level are scheduled to stay fixed at about 116 million pounds (53,000 metric tons, about 6 percent of domestic food use in 2002) and face a specific per unit tariff ranging from $66 to $93 per metric ton, depending on the level of processing. Prior to the 2002 Farm Act, peanut imports quickly reached the annual TRQ level, but a much higher ad valorem tariff on over-quota imports—ranging from 131 to 163 percent of the import price—prevented significant imports beyond the TRQ level. As part of NAFTA, a separate TRQ for Mexico is scheduled to raise lower tariff peanut imports from that country to a (still low) level of 10.6 million pounds in 2007, but all U.S. imports from Mexico will become tariff-free in 2008.

[1] Without restrictions on lower priced imports, unsold domestic quota peanuts would likely have been forfeited to the Government's Commodity Credit Corporation. Since the marketing quota was meant to operate at "no-net-cost" to the Government under the 1996 Farm Act, large forfeitures would have required either a substantial cut in the domestic marketing quota level or an eventual reduction of the quota loan rate under new legislation.

Figure 1

Before the 2002 Farm Act, peanut imports had cut into the U.S. market



Source: USDA, Foreign Agricultural Service, U.S. Trade Internet System.

Mexico is a relatively minor peanut producer, but increased production arising from incentives to export peanuts to the United States may eventually have placed further pressure on the U.S. marketing quota program. U.S. commitments to enter into new trade agreements, and rising imports of peanut-containing products, such as candies and other processed foods—which are not covered by TRQs—would also likely have pressured the system (peanut butter is covered under a separate TRQ). Some observers suggest that recognition of these competitive pressures—and the additional budget (Government) resources made available to peanut producers in the 2002 Farm Act—facilitated acceptance of policy change by many growers.[2] (For more information, see *U.S. Tariff-Rate Quotas for Peanuts* - *http://www.ers.usda.gov/briefing/WTO/PDF/Skully.pdf*; and *Issues Facing the U.S. Peanut Industry During the Seattle Round of the World Trade Organization* - *http://www.ers.usda.gov/briefing/WTO/PDF/Skinner.pdf*.)

[2] Some observers have also cited U.S. commitments under the WTO—limiting the amount of domestic support provided by certain agricultural commodity programs—as a motivation for changing the U.S. peanut program. The United States agreed to limit (non-exempt) "amber box" support for agriculture—classified as the Aggregate Measurement of Support—to no more than $19.1 billion annually after 2000. However, the peanut program constituted a relatively small share—about 2 percent—of WTO-limited domestic support under the 1996 Farm Act, and it is uncertain what effect program changes in the 2002 legislation will have on the overall level of support for peanuts.

New Program Provisions

The 2002 Farm Act eliminated the supply-limiting marketing quota program for peanuts, and all producers—whether former quota holders or not—are now allowed to sell their peanuts in the domestic market for food use (i.e., peanut butter, snacks, candy, in-shell peanuts). Producers are now also eligible for the same kinds of Government payments that are available to growers of such crops as grains, oilseeds, and cotton. For example, all peanut growers can receive marketing assistance loans (a per unit revenue floor) of $355 per ton for current production. Producers with an established (1998-2001) history of peanut production (peanut base acres) can receive fixed direct payments and counter-cyclical payments—benefits not tied to current peanut production. In addition, peanut quota owners are eligible for a peanut quota buyout program.[3] Under the 1996 Farm Act, the peanut quota program was intended to operate at "no-net-cost" to the Government, but the 2002 Farm Act shifted program costs from peanut consumers to all taxpayers. The 2002 Farm Act governs Federal farm programs over a 6-year period (2002-07) and includes the following provisions for peanut growers:

- **Marketing assistance loans**

  Current peanut producers are eligible to receive marketing loan benefits when the weekly USDA-established loan repayment rate falls below the marketing loan rate, which is fixed at $355 per short ton during the period covered under the 2002 Farm Act (2002-07).[4] Producers can repay the marketing loan at the lower of the loan repayment rate or the loan rate plus interest anytime prior to the date the loan matures (9 months from the date of the loan), or forfeit the peanuts used as collateral to the Federal Government at maturity. Alternatively, producers can forgo the loan and accept a loan deficiency payment if the marketing loan rate exceeds the repayment rate.

- **Direct and counter-cyclical payments**

  Farmers who have enrolled peanut base acres are eligible for fixed direct payments, and for counter-cyclical payments (CCPs) when the effective price falls below the target price. Participants must enter into annual contracts with USDA to be eligible for these payments. Payments are not tied to current production choices, though farmers are required to keep their land in approved agricultural uses (e.g., crop production, fallow). Direct and counter-cyclical payments are the product of the national payment rates, 85 percent of the payee farm's base acres, and the farm's payment yield. The payment rate for direct payments is fixed at $36 per ton. The payment rate for CCPs is variable, and payments are only made when the "effective price" is less than the target price of $495 per ton. The effective price is equal to the sum of 1) the direct payment rate and 2) the higher of the national average farm price for the marketing year, or the peanut marketing loan rate. Because these payments are not tied to current production, a portion may go to farmers who no longer produce peanuts.

Note: Definitions of specific farm policy terms can be found at: *www.ers.usda.gov/briefing/FarmPolicy/glossary.htm*.

[3] For more information on peanut provisions in the 2002 Farm Act and comparisons with the 1996 Farm Bill, see *The 2002 Farm Bill: Provisions and Economic Implications* *http://www.ers.usda.gov/publications/aib778/*, *The 2002 Farm Act: Provisions and Economic Implications for Commodity Markets* *http://www.ers.usda.gov/Features/FarmBill/Titles/TitleICommodities.htm* and *Provisions of the Federal Agriculture Improvement and Reform Act of 1996* *http://www.ers.usda.gov/publications/aib729/* *Title I.*

[4] The $355 per ton loan rate is the national average for all peanuts. The loan rate does not vary by region, but does vary by quality and market type of peanuts (Runners, Virginias, Spanish, and Valencias).

- **Peanut quota buyout program**

  The new program authorizes peanut quota owners—regardless of whether they farmed or rented out the quota—to receive quota buyout payments. Quota owners could receive payments in five annual installments of $220 per short ton during fiscal years 2002-06 or take the payment in a lump sum during the fiscal year specified by the quota owner. Payments are based on the owner's 2001 quota. (See section ". . . and sector revenues expected to be relatively stable" for more information on Government payments.)

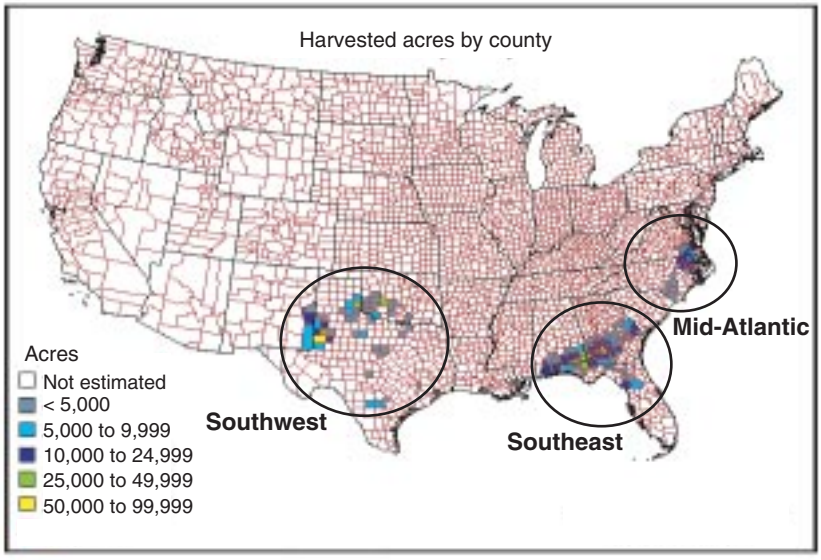
Lower Prices Dampen Planting Incentives. . .

The relatively recent passage of the 2002 Farm Act makes it difficult to generalize about the impacts of the new program on individual peanut growers. Not surprisingly, though, the transition to the new policy environment has been marked by some uncertainty and adjustment pressures for U.S. peanut growers—a small but geographically concentrated group of farmers (fig. 2).[5] For example, at the aggregate level, farm-level prices and market revenues dropped substantially following the 2002 Farm Act—particularly during the first year (2002) under the new policy (fig. 3). Farm market revenues from peanut production (excluding Government payments) fell from an annual average of about $1 billion during the years covered in the last farm bill (1996-2001) to just over $600 million in 2002, but rebounded to nearly $800 million in 2003.

In addition, although planted acreage remained stable or even increased in the major peanut-producing States of the Southeast, other States experienced large drops in acreage, and overall production incentives appear to have declined, as indicated by 2 consecutive years of reduced plantings in 2002 and 2003. Total U.S. plantings of 1.34 million acres in 2003 were down from a typical level of slightly more than 1.5 million acres during the 1996 Farm Act (1996-2001) and hit their lowest level since 1915. Between 2001 and 2003, declines were particularly steep in Virginia (down 55 percent), Oklahoma (down 54 percent), and Texas (down 35 percent) (fig. 4). The decline in Texas reflects, in part, reduced plantings in unirrigated areas, which has led to lower abandonment (acres planted but not harvested) rates since 2001.[6] In Virginia, reduced plantings appear to be tied to reduced profitability, abandonment of marginal land, and contract difficulties between growers and shellers. However, based on preliminary estimates, overall plantings in 2004 increased

Figure 2

Peanut regions, 2002



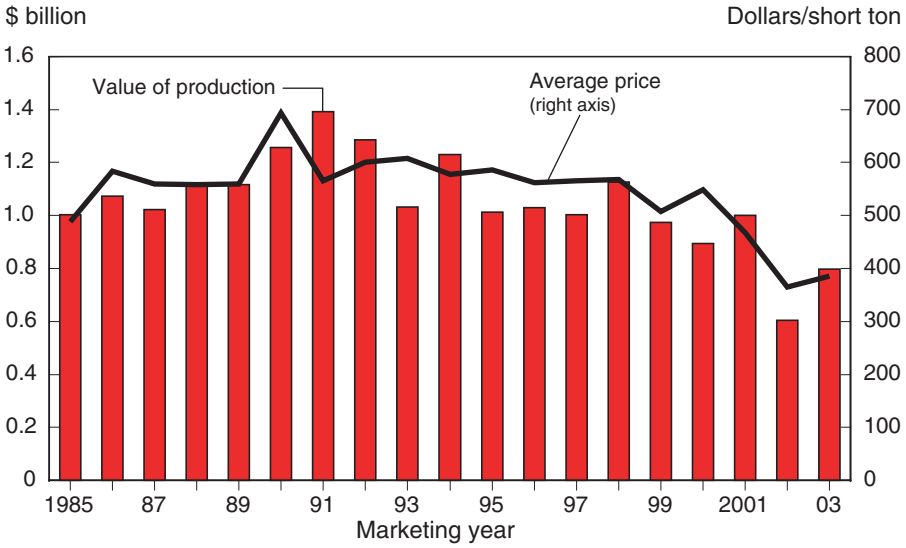
Source: USDA, National Agricultural Statistics Service, Agricultural Charts and Maps.

[5] During the 1996 Farm Act (1996-2001), peanuts were grown by about 12,000 farms, averaging $1 billion annual in peanut revenues—about 1 percent of national "principal crop" production value. Due to the crop's soil and climate requirements, virtually all peanut production occurs in nine States in three regions. The Southeast (Georgia, Alabama, Florida, and South Carolina) had 60 percent of national production during 1999-2001; the Southwest (Texas, Oklahoma, and New Mexico) had 28 percent; and the Mid-Atlantic (Virginia and North Carolina) had 12 percent. Georgia and Texas are the two leading producers, together accounting for over 60 percent of U.S. production. According to the 2002 Census of Agriculture, the number of farms producing peanuts in 2002 was about 8,600, down from about 12,700 in 1997, and nearly 19,000 in 1987.

[6] Abandonment averaged 30 percent in Texas during 2000 and 2001 but declined to 11 percent in 2002 and 2 percent in 2003.

Figure 3

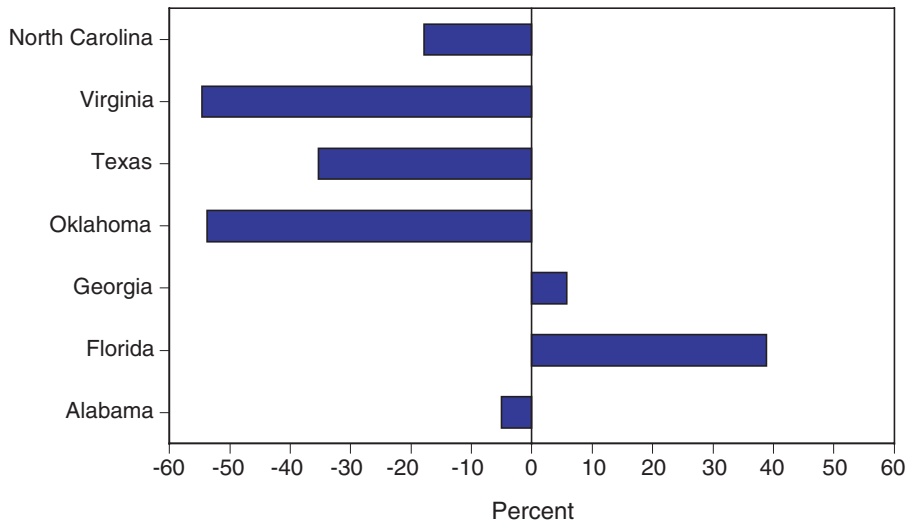
Average price and value of production



Source: USDA, National Agricultural Statistics Service, Agricultural Statistics Database.

Figure 4

Percentage change in planted area (2003 vs. 2001)



Source: USDA, National Agricultural Statistics Service, Agricultural Statistics Database.

slightly (3 percent), compared with plantings in 2003. Acreage increased in the Southeast and Mid-Atlantic but continued to decline in the Southwest. (see box "A brief perspective on peanut planting trends").

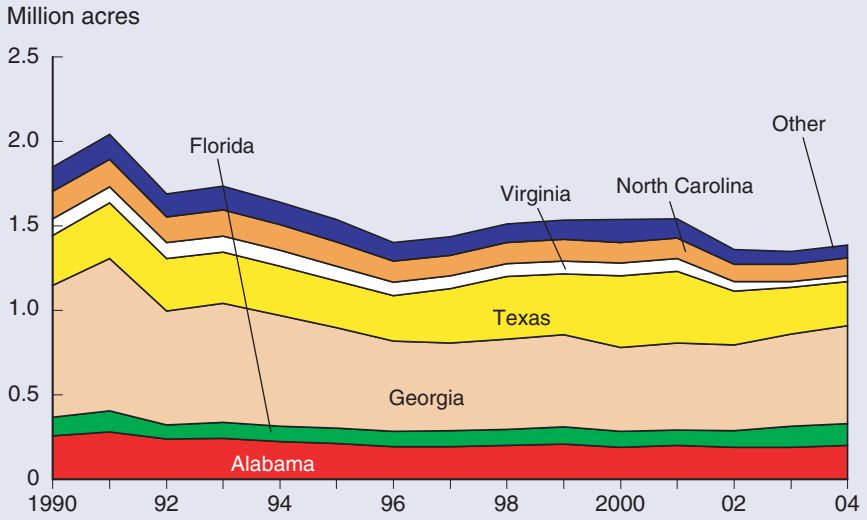
. . .But Planting Decisions Signal More Flexibility. . .

With the elimination of the historical quota entitlements, less competitive peanut producers are now reducing peanut output, most likely by switching to other crops. At the same time, production has begun to expand in areas

A brief perspective on peanut planting trends

U.S. peanut plantings peaked in 1943 at 5.2 million acres (3.5 million harvested), as incentives to produce peanuts expanded during World War II. Plantings dropped rapidly following the war's end. From the mid-1950s to 1981, U.S. peanut acreage was restricted by acreage allotments, limiting planted acreage to about 1.5 million acres annually. After 1981, when poundage quotas fully replaced acreage allotments—allowing nonquota holders to produce "additionals" (nonquota peanuts)—planted acreage gradually rose to a post-1951 peak of 2.04 million acres in 1991. Since 1991, U.S. planted acreage has declined fairly steadily, particularly during the span of the 1996 Farm Act, with planted acreage averaging 1.49 million acres during 1996-2001, compared with 1.73 million acres during 1991-95. With the exception of Texas, all major peanut-producing States saw planted acreage drop since 1996. In Georgia, average acreage fell by over 175,000 acres between the 1991-95 time period and 1996-2001. Declining acreage reflected lower quota support prices and a reduced marketing quota. The quota support price fell from $678 per ton in 1995 to a fixed $610 per ton during the 1996 Farm Act, and USDA lowered the marketing quota from (a statutory minimum of) 1.35 million tons during 1991-95 to an annually determined quota based on domestic demand projections—ranging from 1.0 to 1.18 million short tons during 1996-2001.

Peanut planted acres in the U.S.



Source: USDA, National Agricultural Statistics Service, Agricultural Statistics Database.

with traditionally higher peanut yields. This makes economic sense. Since 1981, the program had allowed nonquota holders in any location to produce peanuts (for export or crush), but restrictions on transferring quota peanut production to farms in different States or counties confined a large share of production to areas originally granted quota acreage "allotments" in the 1940s. Although loosened somewhat in 1996, quota transfer restrictions still generally discouraged inefficient quota holders from exiting production, made it more expensive for efficient producers to expand (quota peanut) production due to quota acquisition costs, and limited growth in areas better

suited to peanut production to those willing to invest in growing lower priced additionals.[7] Farmers renting quota rights accounted for a majority (about 60 percent) of peanut quota production, but rents were expensive—adding more than $80 per acre to production costs in 2001.

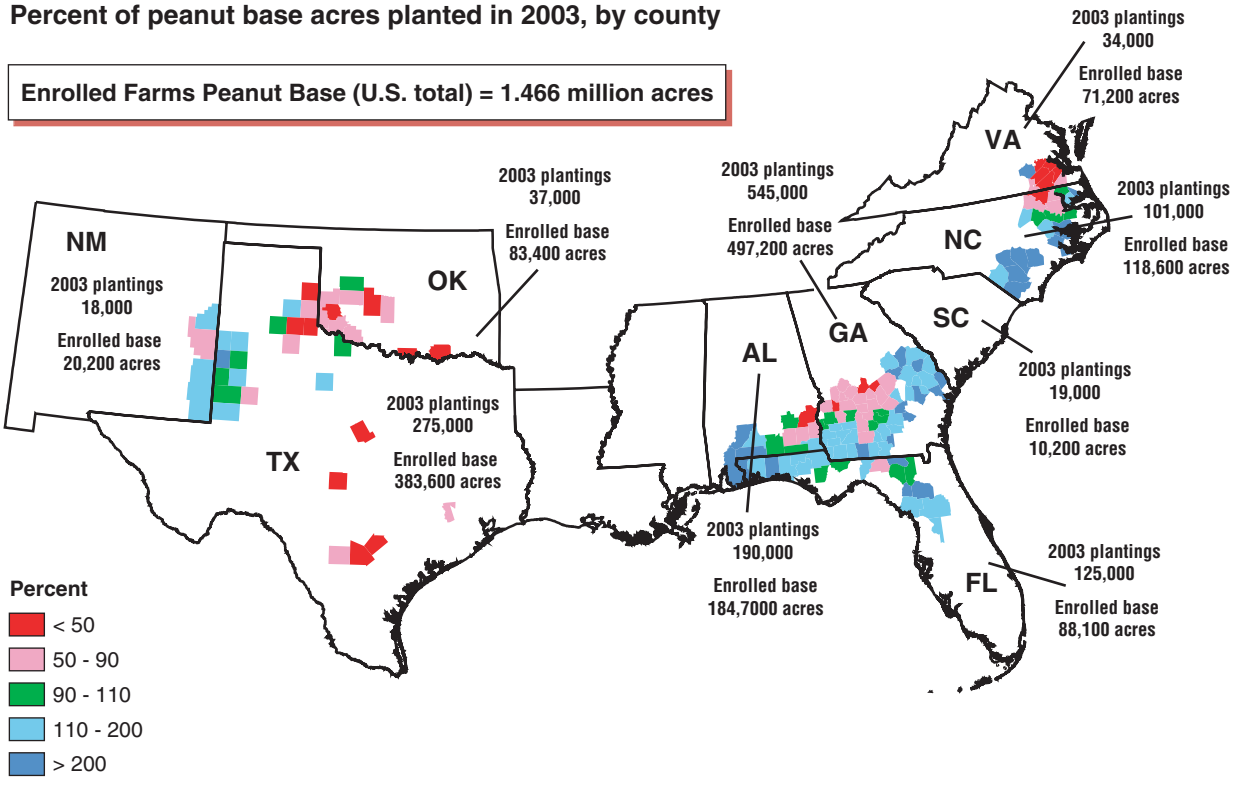
As an indication of the shifts in production area now underway, county-level data from 2003 show that some peanut-producing areas—particularly in parts of the Southeast and western Texas—have significantly expanded acreage over historical average ("base") plantings. This change may reflect the expectations of producers in these areas that expansion will result in higher profits, now that restrictions on the domestic sale of nonquota peanuts have been eliminated. In counties where 2003 peanut plantings exceeded base acreage, growers planted at least 220,000 more peanut acres (about 17 percent of 2003 plantings) than the base acreage available in those counties (fig. 5). In those counties where base acreage exceeded 2003 plantings, at least 340,000 acres of peanut base were not planted to peanuts and most likely went to other crops.[8] In other words, nearly one-quarter of peanut base acres were not planted to peanuts in 2003, but many of these acres were picked up in other counties. The counties with expanding acreage, compared with base, have—on average—significantly better yields than those counties with declining acreage, based on a comparison of yield histories. In general, program changes have spurred growers—particularly former quota holders—to consider expected returns among competing crops, and other factors, such as crop rotations and yield potential, when making planting deci-

[7] The 1996 Farm Act allowed up to 40 percent of quota production to be transferred across county lines, within State. Transferring quota production across State lines was generally not allowed, except from adjacent counties in different States. Prior to 1996, limitations on planting flexibility also reduced incentives to plant nonprogram crops (i.e., peanuts) on program crop (e.g., feed grains, wheat, cotton, rice) land due to potential reductions in program benefits.

[8] Although passage of the 2002 Farm Act coincided with 2002 planting decisions in many areas, some of these shifts in acreage were already becoming evident in 2002, perhaps because the legislation may have been widely anticipated by peanut producers. Since county-level data are used, these numbers do not reflect shifts in production between farms within the same county.

Figure 5

Percent of peanut base acres planted in 2003, by county



Note: Base acres reflect average 1998-2001 historical peanut plantings enrolled under the 2002 Farm Act.

Sources: ERS calculations using NASS (National Agricultural Statistics Service), Agricultural Statistics Database and FSA (Farm Service Agency), USDA, data. Data not available for all counties.

sions. Government payments tied to historical, rather than current peanut production—such as direct and counter-cyclical payments—should have little if any influence on current production decisions.

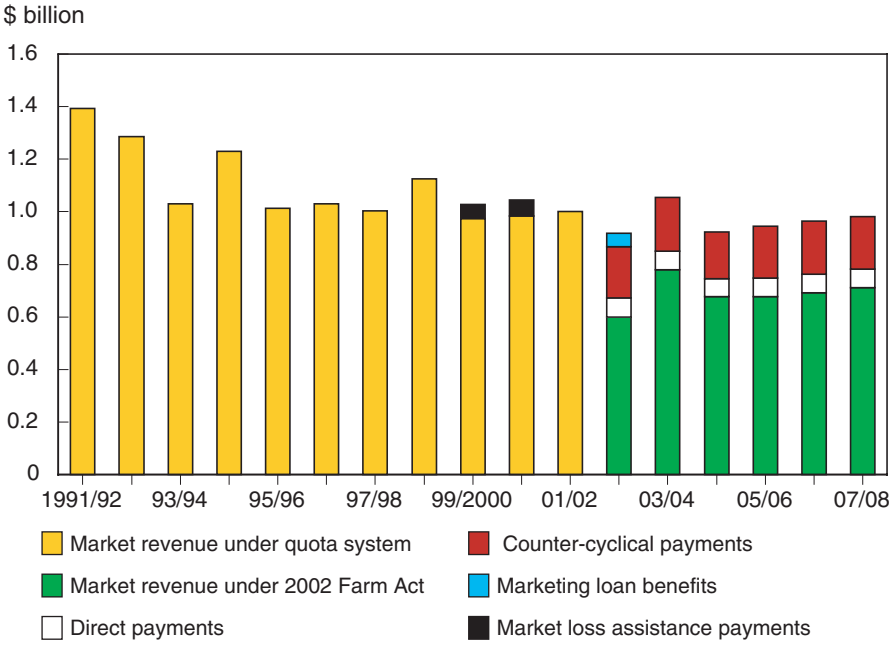
. . .and Sector Revenues Expected To Be Relatively Stable

The elimination of the marketing quota system had varying effects on peanut growers. Relatively inefficient farmers who relied on the $610 per ton quota loan rate (support price) to cover production costs may no longer be able to competitively produce peanuts in the new environment. And despite lower market prices, other more efficient producers—those who grew additionals for export or now have lower costs since they no longer rent quota rights—have been encouraged to enter into or expand peanut production. Regardless of producers' decisions to remain in, or exit, peanut production, it appears that the economic impact on the peanut sector of losing the quota system has been cushioned by several factors, including new sources of Government revenue. Off-farm income, relatively large farm sizes and diversified crop mixes, and reduced costs for some producers should also help offset changes in revenue under the new program (see box "Peanut farms relatively large, diversified").

According to the President's fiscal year 2005 budget, for example, projected annual market revenues and Government payments to current and historical producers—those with an established history (base) of production during 1998-2001—would average $964 million during the 2002 Farm Act (2002-07), about 5 percent less than the 1996-2001 average (fig. 6).[9] Market revenues are expected to provide the majority of peanut sector revenues

Figure 6

Sources of revenue for the U.S. peanut sector: Historical and projected



Sources: 1991/92 – 2001/02: Farm Service Agency, National Agricultural Statistics Service, (Agricultural Statistics Database) USDA; 2002/03 – 2007/08: Office of Management and Budget.

[9] Recall that farm-level revenues during the 1996 Farm Act reflected the influence of the price-supporting marketing quota system. Reported market prices prior to the 2002 crop year are the weighted average of quota peanut prices and the price of additional peanuts. Note that projected revenues do not include government payment of storage and handling fees.

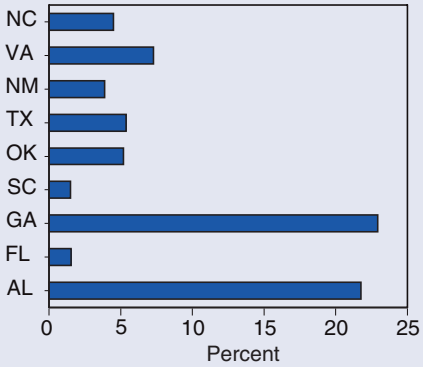
Peanut farms relatively large, diversified

According to the Economic Research Service's 2002 Agricultural Resource Management Survey (ARMS), peanut farms tend to be larger than average farms in peanut-growing areas (averaging 676 acres of crop land) and are fairly diversified. Peanuts are typically grown in 3 to 4 year rotations on farms that grow cotton, soybeans, corn, and wheat. Cotton is the most common crop alternative. Peanut acres averaged only one-fifth of cropland on peanut-growing farms, but peanuts represented nearly 30 percent of total production value. In Georgia and Alabama, peanuts accounted for over 20 percent of total State crop production value, but the peanut share of production value was lower (2 to 7 percent) in other States. Producers exiting peanut production would thus likely emphasize crops already grown on the farm, avoiding additional investments in equipment and skills to grow new crops.

ARMS data also show that peanut producers had comparatively high overall (farm and off-farm) incomes, averaging about $77,000 in 2002 (30 percent higher than nonfarm household incomes). Off-farm income accounted for about 70 percent of total household income of peanut growers—although most peanut farmers reported farming as their primary occupation. Most off-farm income in peanut-producing households was from wages and salaries earned by farm operators and family members. Combined with a fairly diversified farm enterprise structure, sources of off-farm income will likely help offset changes in revenue under the new program (see appendix 1, "Peanut Farm and Operator Characteristics").

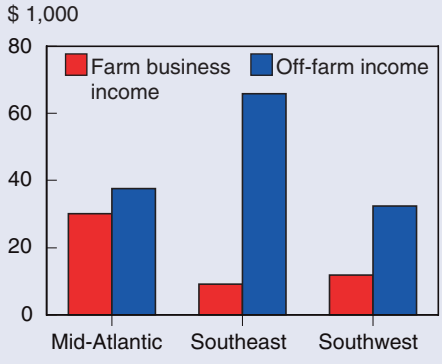
In addition, changes to the peanut program will reduce production costs for those previously renting quota rights. USDA data indicate that about 60 percent of quota rights were cash or share-rented, ranging from 39 percent in the Southwest to 77 percent in the Virginia-North Carolina region. For those renting quota rights, the elimination of quota rental costs partly offsets the decline in peanut prices following the elimination of the quota system. The average quota rent paid in the U.S. was about $83 per acre in 2001, equivalent to more than 25 percent of average operating costs. Furthermore, the cost of peanut seed for planting—previously tied to the quota loan rate—also dropped by about one-third between 2001 and 2003, representing another $24 per acre reduction in operating expenses.

Peanut share of principal crop value, (2000/01-2001/02 average)



Source: *Crop Values 2003 Summary*, USDA, NASS.

Sources of income for peanut farm households, 2002



Source: 2002 Agricultural Resource Management Survey.

Note: Quota rents are categorized by USDA as "allocated overhead" rather than an operating cost, but the elimination of the quota rent will nevertheless result in reduced expenditures for those previously renting quota.

during 2002-07, averaging $689 million annually. Government payments are projected to average $275 million per year.

Sources of Government payments under the 2002 legislation include marketing loan benefits, direct payments, and counter-cyclical payments. All peanut growers, including former additionals producers and new entrants, can receive marketing assistance loans of $355 per ton for current production—well below the $610 per ton quota loan rate. Historical peanut producers who enrolled peanut base acres are eligible for fixed direct payments of $36 per ton, and counter-cyclical payments that vary depending on market prices. As of November 2003, most historical producers elected to enroll their peanut base acres (tied to their 1998-2001 planting history)—covering about 96 percent of eligible land (1.47 million acres). (For a further description of benefits available under the 2002 Farm Act, see *http://www.ers.usda.gov/Features/farmbill/titles/titleIcommodities.htm*).

In crop year 2002, marketing loan benefits to peanut producers amounted to $49.7 million, direct payments totaled $73.1 million, and counter-cyclical payments were $195 million. Marketing loan benefits for peanuts are not expected to contribute to revenues during the remaining years covered by the 2002 Farm Act as prices are projected to remain above the marketing loan rate. Annual direct and counter-cyclical payments over the same period are projected to maintain about the same level as in 2002.[10] Although season average farm prices are projected to be at, or slightly above, the marketing loan rate, growers can still receive marketing loan benefits (in the form of loan deficiency payments, marketing loan gains, or certificate exchange benefits) if the loan repayment rate established by USDA falls below the loan rate. In this case, marketing loan benefits would generally offset the lower price, depending on marketing decisions made by peanut farmers.

The new legislation also authorized a peanut quota buyout program for those owning peanut quota in 2001—regardless of whether they farmed or rented out the quota. According to the President's fiscal year 2005 budget, payments to quota owners will total $1.3 billion. Most quota owners elected to take the quota buyout in a lump sum in the 2002 crop year, with $1.2 billion disbursed among approximately 70,000 eligible recipients.

[10] For complete information on projected Government payments and supply and use projections, see *http://www.fsa.usda.gov/dam/bud/CCC%20Estimates%20Book/estimates-book.htm*. See links to Output 16, Output 18, Output 50, and Peanuts.

Demand Prospects

Rebounding demand for peanuts and peanut products in recent years is a source of optimism for the peanut sector. In fact, estimated U.S. peanut consumption in the 2003-04 marketing year is rising at the fastest annual pace (9 percent) since 1991 and is projected to reach record levels. Peanut demand—particularly in the food-use category (peanut butter, snacks, candy, and in-shell peanuts)—is a key factor affecting production decisions and income prospects of peanut farmers. In high-income countries with relatively low population growth—such as the United States and most countries that import U.S. peanuts—demand is likely to be driven by three factors: 1) consumption stimulated by lower retail prices—if lower farm-level peanut prices are passed through to consumers; 2) the development and promotion of new peanut-containing products and potential demand shifts resulting from changing dietary preferences; and 3) factors affecting export and import incentives, such as foreign competition and policy change.

- **The impact of prices**

  Despite lower farm-level prices for peanuts since 2002, it is not entirely clear whether policy changes in the 2002 Farm Act or other factors triggered the recent growth in demand. As peanuts are a relatively low-cost item, the responsiveness of consumers to changes in peanut prices is typically quite low, and peanut consumption had already been on an upward trend since the mid-1990s (table 1). At the same time, lower farm-level prices for peanuts since 2002 should reduce input costs of peanuts and peanut-containing products, thus encouraging greater use of peanuts among peanut processors, and potentially bringing down retail prices for these products. Lower retail prices, in turn, would be expected to increase demand, as consumers substitute peanuts for other food items.

  However, retail price data (*http://data.bls.gov/labjava/outside.jsp?survey=ap*) for peanut butter (the leading use for peanuts) indicate that prices remain similar, or even higher, than levels in the decade preceding the 2002 Farm Act (fig. 7). Although prices have dropped from a 2002 peak of $2.01 per pound in February 2002, the 2003 average of $1.91 per pound still exceeds the 1995-2001 average. In addition, data on farm-to-retail price spreads for peanut butter indicate that farmers are capturing a smaller share of the retail price of peanut butter—about 20 percent in 2002, compared with an average of about 25 percent between 1988 and 1998.

- **Market promotion and dietary preferences**

  Some observers have attributed the current growth in peanut consumption to increased advertising, promotion, and the introduction of new products—perhaps triggered by reduced input costs for peanut processors. The consumer response to these efforts is often influenced by perceptions about the nutritional characteristics of the food and information from the Government and other sources suggesting that the food can help consumers achieve dietary goals or promote better health.

  In 1989, domestic food use of peanuts stood at 2.31 billion pounds (in-shell basis), or about 9.4 pounds per person. In the early and mid-1990s, U.S.

Table 1—Peanut supply and disappearance

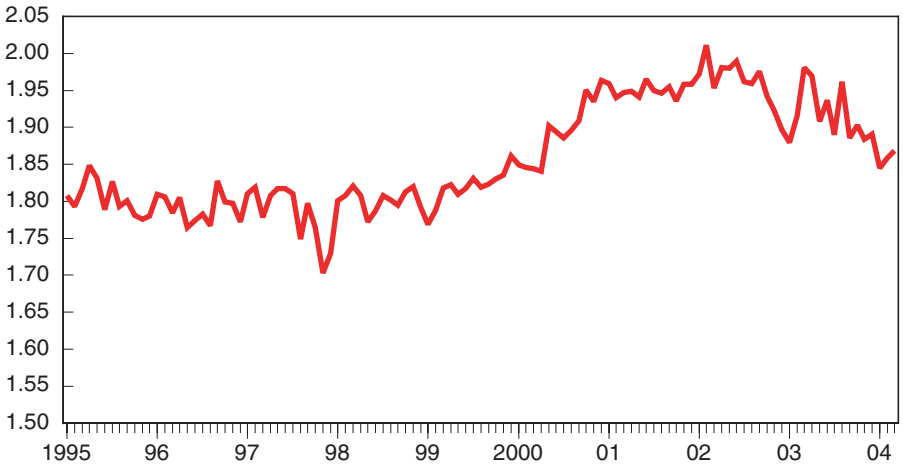
Year beginning August 1	Production	Domestic food use	Exports	Imports	Crush	Yield	Price
		Million pounds				*Lb/acre*	*Cents/lb*
1980/81	2,303	1,465	503	401	446	1,645	25.1
1981/82	3,982	1,696	576	1	573	2,675	26.9
1982/83	3,440	1,849	681	2	342	2,693	25.1
1983/84	3,296	1,856	744	2	387	2,399	24.7
1984/85	4,406	1,911	860	2	625	2,883	27.9
1985/86	4,123	2,023	1,043	2	812	2,810	24.3
1986/87	3,697	2,073	663	2	514	2,408	29.2
1987/88	3,616	2,071	618	2	560	2,337	28.0
1988/89	3,981	2,254	688	3	814	2,445	27.9
1989/90	3,990	2,312	989	4	624	2,426	28.0
1990/91	3,604	2,020	652	27	689	1,985	34.7
1991/92	4,927	2,207	1,002	5	1,103	2,444	28.3
1992/93	4,284	2,122	951	2	891	2,567	30.0
1993/94	3,392	2,088	533	2	670	2,008	30.4
1994/95	4,247	2,009	878	74	982	2,624	28.9
1995/96	3,461	1,993	826	153	999	2,282	29.3
1996/97	3,661	2,029	668	127	692	2,653	28.1
1997/98	3,539	2,099	682	141	544	2,503	28.3
1998/99	3,963	2,153	562	155	460	2,702	28.4
1999/00	3,829	2,233	743	180	713	2,667	25.4
2000/01	3,266	2,179	527	216	548	2,444	27.4
2001/02	4,277	2,211	700	203	693	3,029	23.4
2002/03	3,320	2,228	490	75	857	2,561	18.2
2003/04	4,144	2,430	495	55	634	3,159	19.3

Notes: Units are farmer stock (in-shell) basis. 2003/04 is forecast.

Sources: National Agricultural Statistics Service (Agricultural Statistics Database), and Foreign Agricultural Service (PS&D online); USDA.

Figure 7

Retail price of peanut butter, January 1995-March 2004



Source: Bureau of Labor Statistics, Peanut butter, creamy, U.S. city average.

food use of peanuts tapered off, falling to just under 2 billion pounds in 1995. Reduced demand reflected demographic trends (fewer children among baby boomers), health and dietary concerns about fat intake, and competition from other snack products. Reports of severe allergic reactions to peanuts, which affect an estimated 1.5 million Americans, also reduced household and institutional (e.g., schools and airlines) demand. Since 1995,

however, peanut consumption has turned around, with food use rising steadily to a projected record of 2.43 billion pounds in 2003/04—though per capita use remains below levels reached in the early 1990s.

In addition to benefitting from increased advertising and the introduction of new products, peanut consumption may be receiving a boost from the current popularity of low-carbohydrate diets and could be bolstered by a July 2003 Food and Drug Administration (FDA) ruling allowing "qualified health claims" on packaged (whole or chopped) peanuts. Under this ruling, packages of peanuts can include the statement: "Scientific evidence suggests but does not prove that eating 1.5 ounces per day of most nuts as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease." In time, peanut demand may also benefit from the development of peanut varieties lacking proteins known to cause allergic reactions, as well as from the development of a still-experimental drug (TNX-901) that increases the tolerance of allergy sufferers to peanuts.

Food use the leading source of demand in the United States

While vegetable oil extraction drives peanut demand in some countries, such as India and many other developing countries, the dominant source of U.S. peanut demand—about 67 percent of total domestic use during 2000-02—is direct consumption (food use). Lower quality peanuts used for crushing (for peanut oil and meal) made up 21 percent of domestic use during the period. Seed and residual uses accounted for the remaining 12 percent. Food use of peanuts comprises two main categories. *Shelled* peanuts include those used for peanut butter (about 48 percent of peanut food use), snack peanuts (21 percent), and peanut candy (21 percent). Roasted *in-shell* peanuts account for about 10 percent of U.S. food use of peanuts.

The proportion of peanuts crushed for animal feed and vegetable oil is small, especially when compared with other oilseeds (e.g., soybeans). Peanut oil, which has a niche market in the United States, commands a price premium over other vegetable oils (roughly double the price of soybean oil), while peanut meal sells at a discount (roughly two-thirds of the price of soymeal). In the United States, demand for peanut oil and meal, and for seed use, is likely to vary proportionally with overall demand for food-use peanuts. The level of seed use reflects peanut farmers' expectations of sales for food use and is incorporated into their planting decisions, while the level of peanut crush reflects variations in the quality of the peanut crop—with peanuts not meeting certain grading standards designated as "oil stock" peanuts. Consequently, the price of peanuts and substitute edible products, such as almonds and other nuts, are more likely to affect peanut demand than the price of soybeans and other oilseeds used predominantly for crushing.

- **Net export outlook**

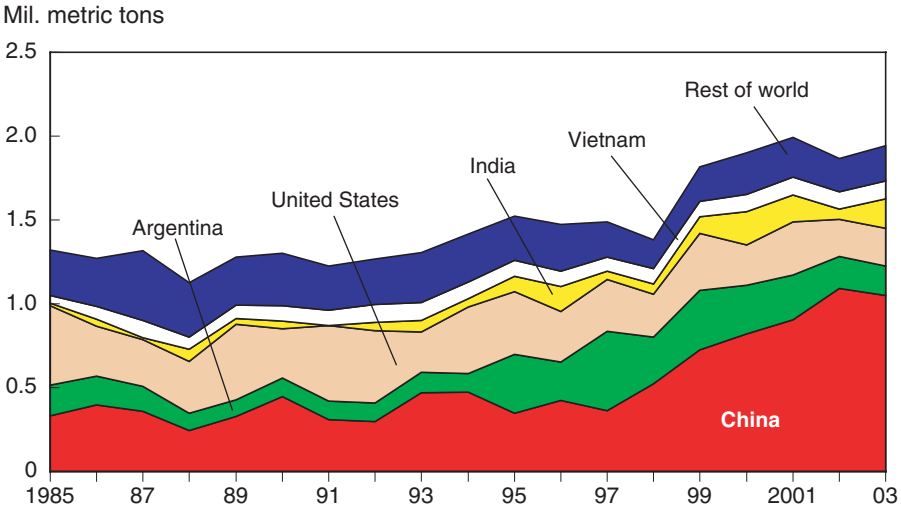
While domestic demand has been rising, the outlook for U.S. exports looks less promising. Additional (nonquota) peanut producers have been exporting a significant amount of peanuts for decades, with exports typically accounting for 15-25 percent of overall production. A reputation for high-quality peanuts has enabled U.S. sellers to command a price premium in international markets (primarily the European Union, Canada, and Mexico), but the United States has faced stiffening competition in recent years from lower cost exporters. As a result, U.S. peanut exports have been on a downward trend since the early 1990s, with the gap being filled largely by lower priced peanuts from China, as well as from emerging exporters, such as India, and established exporters such as Argentina and Vietnam (fig. 8). The United States last led global peanut exports in 1995 but has since been surpassed by China, which led all countries with average exports of nearly 1.1 million tons during 2002/03 to 2003/04. China now has over 50 percent of global market share and nearly five times the level of U.S. exports. Its export growth has been fueled by rapid growth in production, which rose from an average of 7.8 million metric tons during 1990-95 to 13.6 million tons during 1998-2002 (see appendix 2, "Perspective on Global Peanut Production and Trade Issues").

Although the U.S. remains the world's second leading peanut exporter, U.S. peanut exports have slipped from an average of almost 340,000 metric tons annually during the 1990s to an average of 224,000 metric tons during 2002/03 to 2003/04. Changes to the peanut program in the 2002 Farm Act may have further diminished export incentives, as domestic producers who formerly produced additional peanuts for export can now market their peanuts domestically.

On the other hand, lower domestic prices have reduced import incentives, and imports have fallen to less than half the level typically imported prior to the 2002 Farm Act. The NAFTA and WTO agreements currently allow about 57,000 metric tons of peanut imports at the lower in-

Figure 8

Leading peanut exporters



Source: USDA, Foreign Agricultural Service, (PS&D online).

quota tariff rate. Under the marketing quota system, the high quota loan rate provided strong incentives to import, and imports typically matched the TRQ level between 1996 and 2001 (averaging about 57,800 metric tons (shelled basis)). With lower domestic prices under the new program, imports declined to about 25,000 metric tons (shelled basis) in 2002 and to an estimated 22,000 metric tons in 2003—well below the TRQ level. Future import levels will depend on how domestic peanut prices compare with world prices, transport costs, and the in-quota duty ($66-$93.5 per metric ton, depending on category). Imports may also be limited by a preference for U.S. peanuts due to quality reasons (e.g., industry standards for aflatoxins and other quality characteristics).

Price Information Poses Ongoing Challenge

With peanut prices having been determined directly by Government policy for decades, one of the ongoing challenges during the transition to a new policy environment has been adapting to the lack of easily accessible and timely price information, which has limited the number of marketing options available to growers and complicated administration of the new program. According to March 2004 USDA testimony before the House Committee on Agriculture, the difficulty in finding price information is a unique problem for peanuts (compared with commodities such as corn) due to the relatively small number of peanut producers in the United States, who face limited sales options, no market exchange, and limited market price information sources.[11]

Issues for Policy Implementation

For USDA, the lack of price information has complicated the task of establishing the weekly loan repayment rate for peanuts—the market price barometer used to determine the level of potential marketing loan benefits. Under the 2002 Farm Act, the new marketing loan program for peanuts was designed to serve the same objectives as marketing loans available to producers of other crops, such as corn and wheat, offering short-term financing and revenue stability. As with the other crops, USDA relies on timely and accurate market price data to establish the peanut loan repayment rate. However, although USDA and various news and commodity services report U.S. and international prices, the price information for peanuts is not as readily available as it is for other crops. According to March 2004 USDA testimony before the House Committee on Agriculture:

> "Corn loan repayment rates, typically known as posted county prices (PCPs), are derived from major terminal market prices… [which] are collected daily and reflect actual trades. In turn, the terminal prices are adjusted back to each county using publicly available differentials. [This information] is available daily at USDA Service Centers and on FSA's website for each county…. For peanuts, however, CCC announces a weekly loan repayment rate or national posted price. The loan repayment rate is calculated using available, but limited, domestic and international sales prices for peanuts. An average is computed using the prices collected each week. Because of the limited price discovery mechanism for peanuts, it is difficult for CCC to establish the weekly repayment rate."[12]

Risk Management Issues for Growers

For peanut growers, the lack of price information and marketing options rules out some of the strategies available to producers of major commodities, such as timing sales based on cash or futures prices. It appears that a lack of potential trade volume has been a disincentive to establishing a peanut futures contract. As an alternative, the main price-risk management strategy adopted by peanut farmers since 2002 has been to enter into private marketing contracts with peanut buyers, typically peanut shellers. Approximately four-

[11] According to USDA Deputy Under Secretary Floyd Gaibler: "Finding price information, not customarily a problem for other [bulk] commodities with marketing loan provisions, is a unique problem with peanuts. For example, corn producers have a combination of mechanisms that provide price transparency in the marketplace. There are vast numbers of corn producers throughout the U.S. with multiple marketing options, including selling to feed yards, ethanol plants, and local elevators. Corn prices are openly reported on various market exchanges and by many market price reporting services. In stark contrast, there are a comparatively small number of peanut producers in the U.S. with limited sales options, no market exchange, and limited market price information sources." - U.S. House of Representatives, Subcommittee on Specialty Crops and Foreign Agriculture Programs, March 11, 2004.

[12] U.S. House of Representatives, Subcommittee on Specialty Crops and Foreign Agriculture Programs, March 11, 2004.

fifths of growers used such contracts in 2003. Although production or marketing contracts are common among other agricultural products (livestock, tobacco, poultry, fruits and vegetables)—and was typical for farmers producing additional peanuts for export—the inability to time sales based on cash or futures prices (and the lack of price information) is seen as a disadvantage by some peanut farmers. In addition, while former quota holders had stable expectations about both the price (based on the quota loan rate) and the quantity (their share of quota) they could deliver at that price, some current contract offers guarantee a price on only a portion of the grower's crop.

Another emerging option is to participate in one of the three Cooperative Marketing Associations (CMA) that have been formed since 2002: the Peanut Growers Cooperative Marketing Association (PGCMA); the Southwest Peanut Growers Association (SWPGA); and the GFA Peanut Association. These cooperatives formerly administered the quota loan program and acted as marketing associations for peanut producers. In the new policy environment, the CMAs can process marketing assistance loans on behalf of USDA and have the authority to market peanuts on behalf of their members—providing participants with increased bargaining power and more marketing options (Huber, 2003). Participation in CMAs, or perhaps the development of grower-owned cooperatives, could become more common over time if growers perceive that consolidation in the shelling industry has limited competition among buyers.[13]

Government-subsidized crop yield insurance—typically covering 85-90 percent of peanut acres—is another risk-management option available to peanut producers. The Federal Crop Insurance Corporation offers peanut producers two types of yield risk management programs, multiple peril crop insurance (coverage based on farm-level yields), or a group risk plan with coverage based on county-level yields (not typically used by peanut growers). In contrast to some other commodities, peanuts are not covered by revenue insurance products. Producers of peanuts purchase crop insurance policies at a subsidized rate under Federal crop insurance programs. These insurance policies make indemnity payments to peanut producers when current yields fall below historical yields. Between 1995 and 2003, net indemnities (indemnity minus producer premium) ranged from $5.2 million to $105.5 million (table 2). Despite the widespread use of crop insurance by peanut producers, some peanut industry representatives are calling for some modifications, such as allowing growers to insure their crop against the dollar value of contracts.

[13] Currently, there are only 10 active shelling companies, down from 45 in the early 1980s and 92 in 1970. Two companies now control about 73 percent of purchases and two-thirds of peanut buying points.

Table 2—Federal crop insurance for U.S. peanuts

Year	Planted area	Insured area	Percent of participation	Total premium	Premium subsidy	Producer premium	Indemnity	Net indemnity
	Million acres		*Percent*	*Million dollars*				
1995	1.5	1.4	93.3	47.4	20.2	27.2	60.9	33.7
1996	1.4	1.2	85.7	41.8	18.1	23.7	34.0	10.3
1997	1.4	1.2	85.7	36.2	16.1	20.0	46.0	26.0
1998	1.5	1.3	86.7	38.3	17.4	20.9	45.1	25.1
1999	1.5	1.4	93.3	43.7	25.2	18.4	68.2	50.0
2000	1.5	1.4	93.3	47.2	25.2	22.0	127.4	105.5
2001	1.5	1.4	93.3	54.7	32.7	22.1	62.7	40.7
2002	1.4	1.2	85.7	29.9	18.1	11.9	56.5	44.6
2003	1.3	1.2	92.3	28.6	17.3	11.3	16.5	5.2

Source: Risk Management Agency, compiled by ERS, USDA.

Conclusion

By eliminating the marketing quota system, the 2002 Farm Act introduced a major shift for the U.S. peanut sector and ushered in a more market-oriented system. The transition has been marked by lower prices for many producers and adjustments to marketing and risk management strategies, with most farmers opting to enter into marketing contracts or participating in marketing cooperatives. At the same time, production patterns seem to be responding to market incentives. While overall plantings are down, it appears that peanut producers are using increased production flexibility to shift production to more profitable crops or expand peanut production in higher yielding areas. Additionally, the transition for historical peanut producers has been cushioned by a number of factors, such as additional revenue from Government payments and other sources of farm and off-farm income. As peanut growers continue to adapt to the new environment, their production decisions will increasingly be guided by demand conditions, as well as by their assessments of the relative profitability of producing peanuts versus other crops.

Appendix 1: Peanut Farm and Operator Characteristics

For the individual farm, the production response to the peanut policy change in the 2002 Farm Act is likely to vary considerably, depending largely on farm-level production costs and returns, as well as on relative returns from alternative farming activities. As before, decisions to exit peanut production or to expand plantings—and the timing of those decisions—will depend on shorter term annual operating costs and longer term investment decisions related to peanut production. Other demographic and financial characteristics of farm operators, such as the operator's age and education, debt/asset ratio, farm size, and owner/renter status, will also influence decisionmaking.

This appendix uses data from USDA's Agricultural Resource Management Survey (ARMS) to examine production costs and provide a profile of peanut farms in each of the three main producing areas.

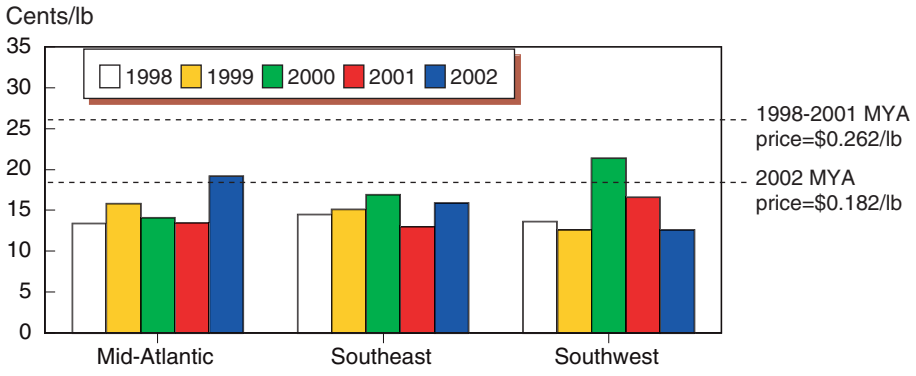
Peanut Production Costs and Returns

In the short run, annual production decisions are typically based on the relationship between operating costs and expected prices. Operating costs for peanut production include such items as seed, fertilizer, pesticides, fuel, custom operations, and hired labor. As the planning span increases and capital assets have to be replaced, producers must consider both operating and asset ownership costs in relation to prices. Asset ownership costs include the annualized cost of maintaining the capital investment (depreciation and interest) in machinery, equipment, and facilities, and costs for property taxes and insurance. The replacement of farm assets requires substantial investments, so farmers often make that decision in conjunction with determining whether to continue producing a particular commodity.

To provide some insight on how production costs compare with per unit production revenues (excluding Government payments) under the marketing quota system and under the new program, appendix figures A-1 and A-2 show the operating and combined operating-asset ownership costs of peanut production for crop years 1998-2002. The charts also show the average 1998-

Figure A-1

Peanut operating costs in relation to prices



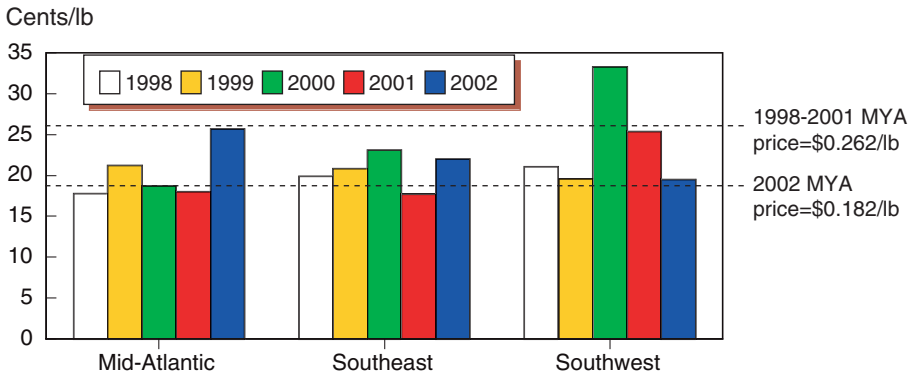
Note: MYA = marketing year average.

Source: Costs: USDA, ERS "Commodity Costs and Returns"; Marketing-year average prices: USDA, NASS, Agricultural Statistics Database.

Note: Peanut farms are defined as those in the Mid-Atlantic, Southeast, and Southwest United States that had any peanut production in 2002. For more information on ARMS, see *http://www.ers.usda.gov/Briefing/ARMS/*.

Figure A-2

Peanut operating and ownership costs in relation to prices



Note: MYA = marketing year average.

Source: Costs: USDA, ERS "Commodity Costs and Returns"; Marketing-year average prices: USDA, NASS, Agricultural Statistics Database.

2001 price (under the price-supporting marketing quota system) and the season average price for 2002 (the first year following the 2002 Farm Act).[1]

According to these data, the average 1998-2001 peanut price of 26.2 cents per pound was well above average operating costs in each of the main peanut-producing regions. The 2002 season-average price of 18.2 cents per pound was still sufficient to cover operating costs in the Southeast during all years, and in the Mid-Atlantic and Southwest in 4 of the 5 years. However, when asset ownership costs are included, average costs in each region generally exceeded the 2002 season-average peanut price. Assuming this pattern holds true in the future, there may be a gradual consolidation of farms growing peanuts. The timing will hinge on the planning horizon and investment decisions of peanut farmers. Producers with operating costs exceeding expected revenue are likely to be the first to exit peanut production, while others may exit as fixed assets—particularly those tied uniquely to peanut production—fully depreciate and must be replaced. Farmers with lower production costs, more modern operations, and a more favorable financial position could assume increased production, thus offsetting declines by other peanut producers.

While 2002 data indicate a general incentive to gradually reduce peanut production, the 2002 ARMS profile of U.S. peanut farms also shows substantial differences among farms and farmers in each of the major peanut-producing regions, which may influence peanut planting decisions. For example, Southwest peanut farms are larger and have more peanut acres but are also in a more vulnerable financial position (based on debt-asset ratios) than farms in the other regions. In addition, average peanut production costs per pound during 1998-2002 were higher and more variable in the Southwest than in other regions and were more likely to be above market prices. These conditions may have contributed to the decline in planted peanut acres observed in some parts of the Southwest since 2001.

In the Mid-Atlantic region, peanut producers have smaller farms but had lower peanut production costs prior to 2002 and are less vulnerable financially than peanut farmers in the Southwest. However, peanut farmers in the Mid-Atlantic are generally older, and fewer regard farming as their primary

[1] Note that ARMS cost of production data do not include opportunity costs for other resources, such as the farmer's labor and land (which could be used for other purposes). Thus, the data do not reflect changing land rental rates caused by the elimination of the quota system, discussed earlier in this report. Also note that Appendix figures A-1 and A-2 list costs per pound, which reflect annual yield variations. For further information on peanut costs of production, see the Economic Research Service, USDA, Commodity Costs and Returns database *http://www.ers.usda.gov/Data/CostsAndReturns/testpick.htm*.

occupation. At this stage of life, and faced with greater uncertainty about the returns to peanut production, many of these producers may have decided to cease peanut production.

In the Southeast, peanut production costs are similar to those in the Mid-Atlantic. The lower peanut price in 2002 was still sufficient to cover average operating costs, but not combined operating and ownership costs in most years. Southeast peanut producers are less vulnerable financially than producers in the Southwest, but Southeast producers have lower educational attainment than producers in other regions and appear to have fewer crop alternatives that are as profitable as peanuts. Consequently, peanut acreage in the Southeast may be less responsive to changes in the program because Southeast peanut farmers have fewer off-farm options or crop alternatives.

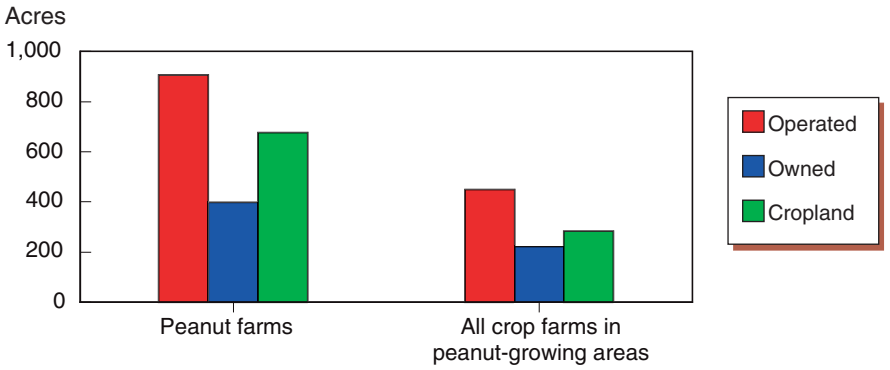
Peanut Farmers Likely to Operate Larger Farms, Report Farming as Primary Occupation

Peanut farms tend to be much larger than the average of all (peanut and nonpeanut producing) crop farms in each of the main peanut-producing regions, with average acreage operated, owned, and in cropland on peanut farms more than twice the average for all crop farms in these areas during 2002 (app. fig. A-3).[2] Operators of peanut farms were also more likely to report farming as their primary occupation, compared with operators of all crop farms. More than 80 percent of peanut farm operators reported farming as their primary occupation during 2002, in contrast to just over 40 percent of all crop farm operators (app. fig. A-4). Compared with peanut farmers, operators of all crops farms (in peanut-producing regions) were more likely to report being retired (22 percent) or to have a nonfarm job (35 percent) as their primary occupation.

Peanut Farm Size, Acreage Mix, and Demographic Characteristics

Most peanut farms (64 percent) are in the Southeast region, primarily in Georgia (app. table A-1). The Southwest region includes 15 percent of peanut

Figure A-3
Acreage on peanut and crop farms

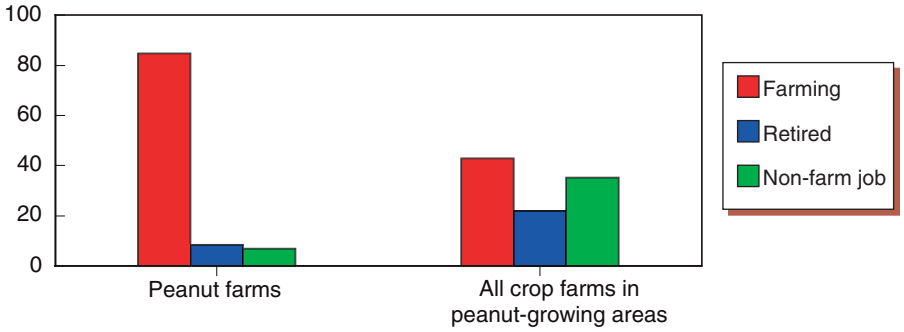


Source: 2002 Agricultural Resource Management Survey. Peanut areas include States in the Mid-Atlantic, Southeast, and Southwest.

[2] "Crop farms in peanut areas" are defined as any farm in the Mid-Atlantic, Southeast, and Southwest that had crop production in 2002.

Figure A-4

Primary occupation of peanut and crop farm operators



Source: 2002 Agricultural Resource Management Survey. Peanut areas include States in the Mid-Atlantic, Southeast, and Southwest.

Appendix table A-1—Characteristics of U.S. peanut farms, 2002

Item	Mid-Atlantic	Southeast	Southwest	All peanut farms
Percent of farms	22	64	15	100
Farm size (average acres):				
Operated	870*	763	1,583	907
Owned	273**	385*	632*	397
Rented	586	385	936*	510
Cropland	617	584	1,160	676
Sales class (percent of farms):				
Less than $40,000	26**	24*	id	21*
$500,000 or more	15*	nr	31*	14**
Peanut acreage (average):				
Harvested	91	131*	233*	137
Percent irrigated	6**	32	83	41*
Yield (pounds per acre)	2,004	2,148	3,040	2,351
Other crop acreage (average):				
Corn for grain	73	32*	id	38
Wheat	29	26*	175*	48*
Soybeans	137*	15*	11**	41
Cotton	251*	212*	281*	231
Tobacco	20*	id	0	6*
Production specialty[1] (percent of farms):				
Peanuts	31*	43	48*	41
Tobacco	23*	id	0	9*
Cotton	id	14*	id	12*
General crop	20*	26*	31*	25*
Beef cattle	0	7**	id	5**

Notes: id = insufficient data for legal disclosure; nr = not reported due to a limited sample size and a high coefficient of variation (CV); * = CV between 25 and 50; ** = CV greater than 50.

[1]The production specialty is the commodity that accounted for 50 percent or more of the farm value of production during 2002. General crop farms did not have a single commodity that met this criterion.

Source: 2002 Agricultural Resource Management Survey.

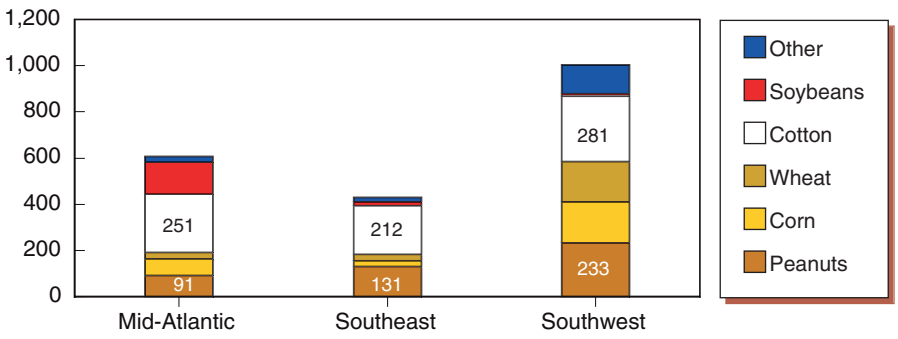
farms, but these farms were, on average, larger than farms in the other regions. Southwest peanut farms averaged nearly 1,600 acres operated, with 1,160 acres of cropland. In addition, nearly a third of peanut farms in the Southwest had total farm sales of $500,000 or more, compared with 15 percent or less in the other regions. Peanut farms in the Mid-Atlantic and Southeast were similar in size, with around 800 operated acres and 600 acres of cropland. About a quarter of farms in these two regions were relatively small, with total farm sales less than $40,000.

The largest peanut acreage on peanut-growing farms was in the Southwest, with an average of 233 harvested acres, compared with 131 in the Southeast and 91 in the Mid-Atlantic. Southwest producers also had the highest peanut yields in 2002, nearly 1,000 pounds per acre higher than in both other regions, owing to extensive irrigation in this region. Over 80 percent of peanut acreage in the Southwest was irrigated, compared with 32 percent in the Southeast, and only 6 percent in the Mid-Atlantic.

Other crops found on peanut farms varied by region, but cotton was common in all regions (app. fig. A-5). More than 200 acres of cotton, on average, was harvested on peanut farms in each region. In the Mid-Atlantic, soybeans and corn were also commonly grown on peanut farms. Southwest peanut farms also had substantial acreage of wheat. However, peanuts were the production specialty on the most farms in each region, including 48 percent of Southwest farms, 43 percent of Southeast farms, and 31 percent of Mid-Atlantic farms. Many of the peanut farms in each region were diversified, classified as general crop farms with no production specialty.[3]

The average age of peanut farm operators was significantly higher, by 10 years, in the Mid-Atlantic and Southeast than in the Southwest (app. table A-2). About half of Mid-Atlantic and Southeast peanut farmers were over age 50, while 80 percent of farmers in the Southwest were under age 50. Nearly 30 percent of farmers in the Mid-Atlantic reported their primary occupation as other than farming (retirement or nonfarm), compared with virtually none of the Southwest farmers. Mid-Atlantic farmers were also more educated than farmers in the other regions, with more graduating from college, especially compared with Southeast farmers.

Figure A-5
Crop mix on farms that planted peanuts



Note: Data reflect harvested acres only, not necessarily all cropland.

Source: 2002 Agricultural Resource Management Survey.

[3] Farm production specialty was defined as the commodity with 50 percent or more of the farm value of production in 2002. Low cotton prices in 2002 depressed the value of cotton production and probably prevented cotton from being the production specialty on a greater number of peanut farms.

Appendix table A-2—Farm operator characteristics of U.S. peanut farms, 2002

Item	Mid-Atlantic	Southeast	Southwest	All peanut farms
Age (years)	52	52	42	50
Age class (percent of farms):				
Less than 50 years	54*	45*	80*	52*
50 years or more	46*	55*	20**	48
Education (percent of farms):				
Completed high school	100	85	100	90
Completed college	33**	13*	20**	19
Primary occupation (percent of farms):				
Farming	71*	86	100	85
Retirement	id	id	0	8**
Nonfarm job	id	id	id	7*
Farm typology[1] (percent of farms):				
Rural residence farms	29**	12**	0	14**
Intermediate farms	24*	67	59*	56
Commercial farms	47*	22*	41*	30*

Notes: id = insufficient data for legal disclosure; * = coefficient of variation (CV) between 25 and 50; ** = CV greater than 50.

[1]Rural residence farms had operators whose primary occupation was retirement or a non-farm job. Intermediate and commercial farms had operators whose primary occupation was farming. Intermediate farms had sales of less than $250,000, whereas commercial farms had sales of $250,000 or more.

Source: 2002 Agricultural Resource Management Survey.

Farm Typology

The ERS farm typology combines farm characteristics, including operator occupation and farm sales, in order to assign farms into homogeneous categories (Hoppe, Perry, and Banker). The measure of farm typology used in this report classifies farms into three categories: a) commercial farms (any farm with annual sales of $250,000 or more); b) rural residence farm (farms with sales less than $250,000 and whose operators report their primary occupation as either retirement of off-farm) and; c) intermediate farms (farms with sales less than $250,000 and whose operators report farming as their primary occupation).

The distribution of peanut farms by farm typology indicates that a majority can be characterized as intermediate farms, but the distribution varies significantly among the regions (app. fig. A-6). Nearly a third of Mid-Atlantic peanut farms were rural residence farms, owing to the large number of retired farm operators, while nearly half were commercial farms. Most peanut farms in the Southeast and Southwest were intermediate farms, but a significant number of Southwest farms were classified as commercial.

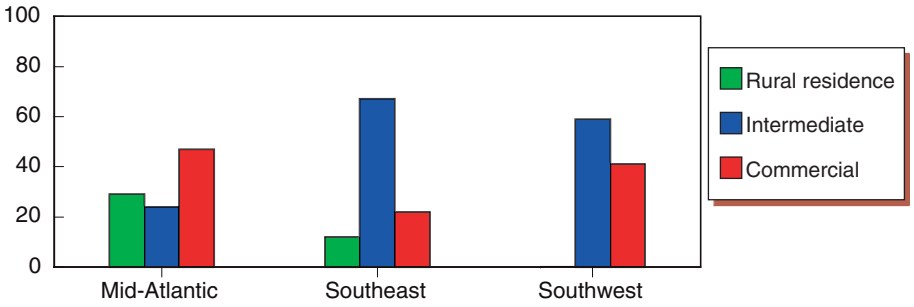
Farm Financial Characteristics

The average net cash farm income of Southwest peanut farms, nearly $120,000 per farm, was significantly higher than income in the Mid-Atlantic (about $70,000) and in the Southeast (about $50,000) (app. table A-3). However, a depreciation expense of about $86,000 per farm in the

Figure A-6

Peanut farm typology by region, 2002

Percent of farms



Source: 2002 Agricultural Resource Management Survey.

Appendix table A-3—Financial characteristics of U.S. peanut farms, 2002

Item	Mid-Atlantic	Southeast	Southwest	All peanut farms
Farm income statement ($ per farm):				
Gross cash income	308,501*	264,943*	398,276	294,101*
Livestock sales	7,103**	nr	16,531*	nr
Crop sales (all crops)	201,779*	162,987*	260,277*	185,785
Government payments	65,796*	50,753*	55,653*	54,742
AMTA payments	6,821*	6,708*	10,494*	7,292
Direct payments	8,625*	9,892*	nr	9,418*
Counter-cyclical payments	5,927*	3,584**	nr	4,013*
LDP payments/ Marketing loan gains	13,511*	3,842**	12,966*	7,289*
Peanut quota compensation	18,750*	18,571*	16,640**	18,324
Cash expenses	239,922*	215,060*	278,661*	229,855
Net cash farm income	68,579*	49,883**	119,615	64,246*
Depreciation	20,239*	27,010**	86,016**	34,261*
Net farm income[1]	57,892**	43,897**	28,934**	44,723*
Farm balance sheet ($ per farm):				
Assets	660,726*	1,014,041*	1,013,376*	937,265*
Liabilities	123,271*	109,327*	366,210*	150,318*
Equity	537,454*	904,713*	647,166	786,946*
Debt/asset ratio	0.19*	0.11	0.36*	0.16*
Return on equity	10.77*	4.85*	4.47**	5.68*
Farm household income ($ per household):				
Total household income	71,948*	80,374*	65,673**	76,614
Farm-related income[2]	34,332*	14,483**	33,274**	21,211**
Off-farm income	37,616	65,891	32,400**	55,403
Earned sources	21,771*	40,105	26,914*	34,450
Unearned sources	15,844*	25,786**	5,486*	20,953*

Notes id = insufficient data for legal disclosure; nr = not reported due to a limited sample size and a high coefficient of variation (CV); * = CV between 25 and 50; ** = CV greater than 50.

[1] Net farm income is net cash farm income less costs for depreciation and noncash benefits for hired workers, plus the value of the inventory change in 2002 and any nonmoney income. Nonmoney income includes the value of farm products consumed on the farm and an imputed rental value for the farm operator dwelling.

[2] Farm-related income is that portion of farm income that is accrued by the farm household. Farm-related income is net cash farm income less costs for depreciation and farmland rental income. The total is then adjusted to reflect any other households that share in the farm business income, and the farm earnings of household members other than the farm operator.

Source: 2002 Agricultural Resource Management Survey.

Southwest, compared with less than $30,000 in the other regions, meant that net farm income was lowest in the Southwest. The depreciation charge is greater in the Southwest because of the substantial machinery and equipment requirements for the large irrigated acreage of farms in this area. Also, the younger age of Southwest peanut farmers suggests that their investments in farm assets have been more recent, and thus have a greater depreciation charge. Average net farm income in 2002 was highest on peanut farms in the Mid-Atlantic, about $60,000 per farm, nearly double that on farms in the Southwest.

Peanut farms in the Southeast and Southwest regions had nearly identical farm asset values, but the debt on Southwest farms was nearly three times higher, resulting in a debt-to-asset ratio of 0.36. This high ratio likely reflects the young age of these farm operators, relative to those in other regions, who have recently borrowed significantly to finance asset purchases and farming operations. The high debt-to-asset ratio on Southwest peanut farms does not indicate a problem as long as the income generated from farming is enough to service the debt; however, farmers could be at greater risk in years when prices and yields are less favorable. Debt-to-asset ratios were much lower in the Mid-Atlantic (0.19) and Southeast (0.11), where older farm operators have likely paid down much of the farm debt incurred during their early years in business.

Appendix 2: Perspective on Global Peanut Production and Trade Issues

Production—Peanuts represent about 10 percent of world oilseed production, making them the fourth largest oilseed crop after soybeans, cottonseed, and rapeseed. The world's leading peanut producers in terms of global production share during 2001/02-2002/03 were China (46 percent) and India (19 percent), followed by the U.S. (5.2 percent), Nigeria (4.7 percent), and Indonesia (3.3 percent). Most production is consumed within country, as only 6 percent of recent (2000/01 to 2002/03) production was traded—up slightly from 5.4 percent in the early 1980s.

Trade—During 2000/01-2002/03, China (with 49 percent of global exports), the United States (13.5 percent), Argentina (13 percent), India (7 percent), and Vietnam (5 percent) were the world's leading peanut exporters. Relatively poor storage and internal transportation capabilities and quality issues are likely to limit potential U.S. imports from many of the less developed countries. The European Union (EU) is by far the leading importer of peanuts, with about 38 percent of global imports during 2000/01 to 2002/03. The EU is followed by Japan (8.5 percent of imports), Indonesia (7.6 percent), Russia (7.4 percent), Canada (7.0 percent), Mexico (6.6 percent), and the United States (4.9 percent). The U.S. import share fell to 2.2 percent in 2002/03.

Trade policy and market access issues—The outlook for global peanut trade and U.S. peanut exports will depend, to a certain degree, on potential reductions to market barriers, such as tariffs and TRQs. According to data from the Agricultural Market Access Database, the simple average of bound or over-quota tariff rates on peanuts for 101 countries was 66 percent, slightly above the 62-percent average for all agricultural products. Of these countries, only 16 had bound or over-quota tariff rates of less than 20 percent (including the EU and Canada). Of 22 countries for which applied tariff data were available (mostly Latin America, East Asia), tariffs were typically below 50 percent, with the exception of the Republic of Korea (251 percent). Excluding Korea, the average applied rate for these countries was just over 12 percent. The U.S. trade negotiating position of reducing tariffs and increasing tariff-rate quotas could result in changes to the tariff rates and tariff-rate quota of U.S. peanuts and peanut product imports, but may also provide opportunities for increased U.S. exports if tariff rates abroad are lowered. With the U.S. TRQ currently not filling, it appears that under current market conditions, increasing the TRQ will not result in increased U.S. imports, but lowering the in-quota tariff level could have some effect.

In addition to tariff barriers, sanitary and phytosanitary rules and regulations have had a significant impact on trade. For example, the level of aflatoxin (a carcinogenic byproduct of mold) is a key factor in the trading of peanuts, but regulatory standards governing the permissible level of aflatoxins in peanuts vary widely among countries. The U.S. peanut industry standard and the international standard-setting body CODEX Alimentarius have both adopted a tolerance level of 15 parts per billion aflatoxin in peanuts for human consumption. The EU has adopted more stringent standards, but many less developed countries allow higher levels of aflatoxin. Differences in regulatory standards have potentially large trade impacts (for more information, see *Mycotoxin Hazards and Regulations: Impacts on Food and Animal Feed Trade*, *http://www.ers.usda.gov/publications/aer828/aer828h.pdf*).

References

Dohlman, Erik. "Mycotoxin Hazards and Regulations: Impacts on Food and Animal Feed Trade," in Buzby, J. (ed.) *International Trade and Food Safety: Economic Theory and Case Studies*. U.S. Department of Agriculture, Economic Research Service. Agriculture Economic Report No. 828, November 2003. *http://www.ers.usda.gov/publications/aer828/aer828h.pdf*.

Dohlman, Erik. "Peanut Consumption Rebounding Despite Market Uncertainties," *Agricultural Outlook*. U.S. Department of Agriculture, Economic Research Service. March 2002. *http://www.ers.usda.gov/publications/agoutlook/Mar2002/ao289a.pdf*.

Hoppe, R.A., J. Perry, and D. Banker. "ERS Farm Typology: Classifying a Diverse Ag Sector," *Agricultural Outlook*. U.S. Department of Agriculture, Economic Research Service. November 1999. *http://www.ers.usda.gov/publications/agoutlook/nov1999/ao266d.pdf*

Huber, Amanda. "A New Era in Cooperative Marketing Associations," *The Peanut Grower*. March 2003. *http://www.peanutgrower.com/home/2003_MarCMAs.html*.

Jurenas, Remy. "Peanut Program Policy Issues." Congressional Research Service. Report for Congress (order code RL30924). Updated August 8, 2002.

Nelson, F., and L. Schertz. *Provisions of the Federal Agriculture Improvement and Reform Act of 1996*. U.S. Department of Agriculture, Economic Research Service. Agriculture Information Bulletin No. 729. September 1996. *http://www.ers.usda.gov/publications/aib729/*.

Office of Management and Budget. "Budget of the United States Government: Fiscal Year 2005." *http://www.whitehouse.gov/omb/budget/fy2005/*.

Revoredo, C., and S. Fletcher. "Does the Existence of Market Power Affect Marketing Loan Programs?" Paper prepared for presentation at the American Agricultural Economics Association Annual Meeting, Montreal, Canada, July 27-30, 2003.

Skinner, Robert. "Issues Facing the U.S. Peanut Industry During the Seattle Round of the World Trade Organization," *Oil Crops Yearbook*, *OCS-1999*. U.S. Department of Agriculture, Economic Research Service. October 1999. *http://usda.mannlib.cornell.edu/reports/erssor/field/ocs-bby/ocs1099.pdf*.

Skully, David. "U.S. Tariff-Rate Quotas for Peanuts," *Oil Crops Yearbook*, *OCS-1999*. U.S. Department of Agriculture, Economic Research Service. October 1999. *http://usda.mannlib.cornell.edu/reports/erssor/field/ocs-bby/ocs1099.pdf*.

U.S. Department of Agriculture, Economic Research Service. "Agricultural Resource Management Survey, 2002." *http://www.ers.usda.gov/briefing/ARMS/*

U.S. Department of Agriculture, Economic Research Service. "Commodity Costs and Returns." *http://www.ers.usda.gov/Data/CostsAndReturns/testpick.htm*. Accessed May 2004.

U.S. Department of Agriculture, Economic Research Service. "The 2002 Farm Bill: Provisions and Economic Implications." May 2002. *http://www.ers.usda.gov/features/farmbill/*.

U.S. Department of Agriculture, Foreign Agricultural Service. "Production, Supply and Distribution (PS&D) online database." *http://www.fas.usda.gov/psd/*. Accessed May 2004.

U.S. Department of Agriculture, Foreign Agricultural Service. "U.S. Trade Internet System." *http://www.fas.usda.gov/ustrade/*. Accessed May 2004.

U.S. Department of Agriculture, National Agricultural Statistics Service. "Agricultural Charts and Maps." *http://www.usda.gov/nass/aggraphs/graphics.htm*.

U.S. Department of Agriculture, National Agricultural Statistics Service. "Agricultural Statistics Database." *http://www.usda.gov/nass/pubs/histdata.htm*.

U.S. Department of Agriculture, National Agricultural Statistics Service. "*Crop Values: 2003 Summary*." February 2004. *http://usda.mannlib.cornell.edu/reports/nassr/price/zcv-bb/*.

U.S. Department of Agriculture, Risk Management Agency. "Summary of Business Reports." Various years. *http://www.rma.usda.gov/data/#sumbus*.

U.S. Department of Labor, Bureau of Labor Statistics. "Consumer Price Index – Average Price Data." *http://data.bls.gov/labjava/outside.jsp?survey=ap* .

U.S. House of Representatives, Subcommittee on Specialty Crops and Foreign Agricultural Programs. "Testimony of Floyd Gaibler, U.S. Department of Agriculture. March 11, 2004. *http://agriculture.house.gov/hearings/108/10825.pdf*.

Westcott, P., C.E. Young, and J.M. Price. "The 2002 Farm Act: Provisions and Implications for Commodity Markets." U.S. Department of Agriculture, Economic Research Service. November 2002. *http://www.ers.usda.gov/publications/aib778/*.