# Proposed End of Peanut Quota Program: Economic Effects on Virginia Producers

**James Pease, John Lehman, and David Orden**

**James Pease is Associate Professor, John Lehman is Research Assistant, and David Orden is Professor, Department of Agricultural and Applied Economics, Virginia Tech**

**November, 2001**

# TABLE OF CONTENTS

# EXECUTIVE SUMMARY

Income from production of peanuts is critical to farmers in eight localities of Southeastern Virginia. From 1998-2000, an average of $58.4 million per year was earned from peanut production under a quota system whose policy foundations reach back to the Great Depression. The existing peanut quota system would be eliminated if the Farm Security Act of 2001 (H.R. 2646) is enacted. The new peanut program would be structured much like existing programs for corn, wheat, and cotton, with eligible peanut producers receiving direct support payments through fixed and counter-cyclical payments on historic production, and price protection through loan deficiency and marketing loan payments on current production. Peanut quota owners would receive buy-out payments over the next five years as compensation for policy termination of their quota.

The Virginia-North Carolina region produces approximately 75 percent of Virginia-type peanuts and about 14 percent of total U.S. peanut production. Since passage of the 1996 Federal Agriculture Improvement and Reform Act, Virginia peanut acreage has fallen by 17 percent. Unlike farmers in rapidly expanding, low-cost regions such as the High Plains of Texas, Virginia farmers do not harvest any significant peanut production beyond that supported at the quota loan rate. Economic theory suggests that elimination of the quota system would decrease production and market income in a high-cost region, but increased direct government payments and decreased land rentals could leave producer income either higher or lower than with the quota system.

The farm-level economic impacts of the potential new peanut program were examined by developing a budgeting model of a commercial-sized Southampton County peanut farm owing 17 percent of its produced quota and renting the remainder. Under the current peanut program, net farm-related income from market sales and government payments over variable costs and rent is $151,065. Government payments are 22 percent of net farm-related income. Net income does not cover cropping enterprise total costs, much less earn a competitive rate of return on the owner's management and equity. If H.R. 2646 is enacted, net farm-related income for this farm would fall to $145,554 or -3.6 percent. Government payments would rise to 55 percent of net farm-related income. Completion of the quota buy-out after five years would further decrease net income by $13,819 or -9.5 percent. During the buy-out period, the Southampton farm does not cover its total costs of production unless peanut market prices rise above $460 per ton. The economic impacts with quota buy-out payments differ significantly for farmers owning the current peanut quota. A farmer currently renting all peanut quota produced would see net income fall by 9.1 percent if H.R. 2646 is enacted, but a farmer owning all quota produced would see net income rise by 17.6 percent. The new peanut program provides planting flexibility, and the farmer is not required to plant peanuts in order to earn government payments. Considering only market net returns, the Southampton farmer will earn approximately $30,000 less net income by including peanuts in the crop mix. If H.R. 2646 is enacted, Virginia peanut farmers should carefully assess their costs, price expectations, and profit opportunities under a dramatically changed economic environment.

# INTRODUCTION

Peanuts are one of the most important cash crops in Virginia. Peanut acreage has ranked fifth or sixth among crops produced in the state since 1996, and because of high per-acre value, peanuts rank among the top three Virginia crops in cash receipts. Peanut production is concentrated in eight counties/independent cities of Southeastern Virginia: Dinwiddie, Greensville, Isle of Wight, Prince George, Southampton, Surry, Sussex, and Suffolk City. With peanut production so concentrated geographically, it is more important to farm incomes in Southeastern Virginia than indicated by its overall rank in the state.

Domestic production of peanuts for the edible food market in the U. S. has been regulated by acreage allotments or marketing quotas since the 1930s. Peanut imports have also been restricted to insulate the U.S. market from foreign competition. The current peanut program sets an annual national poundage quota for domestic production for the edible market that is allocated among states and individual producers based largely on historic quota rights. Relatively high price support for the regulated output of peanuts for the domestic market is maintained through loan rates at which farmers can forfeit their quota peanuts to the Commodity Credit Corporation (CCC) instead of selling their crop through commercial channels. Peanuts produced in excess of the assigned quotas are known as "additionals." The production of additionals is not controlled by allotments or quotas, but these peanuts can only be sold for processing and export. CCC loan rates and market prices for additionals have been much lower than for quota peanuts produced for the domestic edible market. Almost all Virginia production is of the Virginia-type peanut—a large, high quality peanut primarily consumed as a snack or in snack foods. Relatively few additionals are produced in Virginia; hence, Virginia-grown peanuts are typically consumed domestically and are eligible for the higher CCC loan rate.

National peanut quota peaked in 1995 at 1.7 million tons. Under the 1996 farm bill, the price-support loan rate for quota peanuts was lowered by 10 percent, and national quota poundage was reduced to more closely match domestic demand. Quota has subsequently been adjusted annually to avoid a build-up of CCC stocks. With these changes, national peanut quota poundage has fallen by about 20 percent since 1996. Total national peanut production has not fallen as much; hence, a somewhat larger proportion of production has been of additionals directed to domestic processing and exports.

During the 2001 farm bill debate, legislation has been introduced for a new approach to peanut policy. The proposed peanut support program is included in the Farm Security Act of 2001 (H.R. 2646) passed by the House of Representatives in early October 2001. The Senate had not passed a new farm bill as of late November 2001, and it remains uncertain whether the new approach to peanut policy included in H.R. 2646 will become law.

The peanut provisions of H.R. 2646, if enacted, would replace the traditional quota system of regulated production for the domestic edible market with a non-quota system of direct support payments similar to those for grains and cotton. Farmers would no longer have to own or rent quota to produce peanuts for domestic edible consumption. Instead, any farmer in the U.S. could produce peanuts for this market. A loan rate would still provide a minimum price guarantee for all peanuts grown domestically, but the guarantee would be lower than has been provided in the past for quota peanuts. Table 1 provides a comparison of price support rates unter H.R. 2646 with those of the existing law.

Under H.R. 2646, past producers of both quota and additional peanuts would also receive direct income support payments. Those farmers qualifying as "historic peanut producers" based on peanut production during 1998-2001 would be assigned a "peanut base acreage" and "payment yield." Historic peanut

**Table 1. Summary of Price Support Rates for Peanuts under the FAIR Act and Proposed H.R. 2646**

| Policy Instrument | Farm Bill | |
|---|---|---|
| | FAIR Act | H.R. 2646 |
| | ----------$/ton---------- | |
| Loan Rate | 610 (Quota Peanuts)<br>132 (Additionals) | 350<br>(all peanuts) |
| Price and Payment Guarantees<br>(for 85 percent of historical production) | | |
| Target Price | -- | 480 |
| Fixed Direct Payments | -- | 36 |
| Direct Payments to Quota Owners (2001-2006) | -- | 200 |

producers would be eligible for fixed and counter-cyclical direct payments. Both the fixed and counter-cyclical payments included in H.R. 2646 are based on the historic peanut production, not current or future plantings. The direct payments would guarantee producers a target price for 85 percent of their historic production. Farmers would have planting flexibility similar to other crops supported in H.R. 2646. An additional set of payments authorized in H.R 2646 is to buy out current peanut quota owners. Because peanut quota ownership is currently associated with land ownership, a peanut quota owner in not necessarily a producer. Instead, quota owners may rent their rights to peanut producers. Under H.R. 2646, peanut quota owners would receive additional direct payments annually for five years.

Replacing the existing peanut quota system with the proposed new support program in H.R. 2646 would mark a dramatic change from past policy. This REAP report evaluates the implications of the proposed changes for Virginia peanut producers. In section 2, the history of the peanut program is reviewed, focusing on the changes implemented in the 1990 and 1996 farm bills and proposed in H.R.2646. In section 3, recent trends in peanut production by region are reviewed, and a basic economic model is used to illustrate the effects that eliminating the traditional quota system might have on the supply of peanuts from relatively high-cost and low-cost production regions. In section 4, the farm-level economic impacts and planting decisions that Virginia peanut producers might make under the proposed new policy are evaluated. The effects are analyzed in terms of market sales and revenue, variable and fixed production costs, and impacts of the new direct payments on the incomes of farmers and peanut quota owners. The last section presents a summary and the implications of the proposed conversion from the traditional quota system to a payment-based support policy.

# OVERVIEW OF PEANUT POLICY

During the late 1930s, recovery of the U. S. agricultural sector from the Great Depression was slow to occur. The Agricultural Adjustment Act of 1938 authorized the U.S. Department of Agriculture (USDA) to establish acreage allotments to limit the production of six crops (wheat, corn, cotton, rice, tobacco, and peanuts) in conjunction with price support provided through loan rates at which farmers could forfeit these commodities to the CCC without penalty. Additional legislation in 1941 specifically established production restrictions for peanuts (CRS, 1999). The quantity that could be produced for the domestic market was limited by awarding acreage allotments to farmers who had a history of producing peanuts.

Under the legislated support policies, domestic producers with acreage allotments received preferential prices for peanuts supplied to the domestic market for edible uses compared to prices received for peanuts sold for processing (crushing for oil and meal) or exports. Access to the domestic edible market by foreign competitors was restricted by import quotas. Thus, acreage allotments created an income stream from higher prices received exclusively by those farmers who were granted the allotments.

Farmers without such allotments were barred from producing peanuts for the domestic edible market and did not receive the same price support guarantee.

## Evolving Farm Policy

Farm policy today has changed considerably from its New Deal origins. The basic direction of change for most crops has been a shift from annual acreage supply controls, combined with price supports above market-clearing levels, to less supply intervention and more direct income support. This policy evolution toward direct payments began in the mid-1960s when price-support loan rate levels were lowered for corn, wheat, and cotton to enhance U. S. competitiveness in world markets; and farmers were offered direct payments as compensation for the lower price guarantees (Orden, Paarlberg and Roe, 1999). A further substantial change came in the 1985 farm bill, when loan rates, previously set too high in anticipation of inflation and a low-valued dollar that did not materialize, were reduced nearly 25 percent, with larger direct payments again made to farmers. The 1990 farm bill continued the basic policies of the 1985 legislation.

The direction of change in peanut policy since the 1960s has not been the same as that for most other crops. Instead, peanut policy has continued to restrict production for the domestic edible market and to provide price-support loan rates that are higher for domestic edible peanuts than for other uses. In 1981, acreage allotments were converted to poundage quotas. Producers who had allotments were instead granted quota eligibility to sell a certain quantity of peanuts (instead of the output from a certain acreage) in the domestic edible market. These quota production rights could be transferred or sold with the land on which the peanuts were produced. If the land was held within a family, the quota was passed on to descendants who inherited the land. If the land was sold, so was the quota. Quota could be rented, but initially the peanuts had to be grown on the land of the quota holder. This planting restriction was eventually eased to allow quota peanuts to be produced on the property of the renter or even on land rented from a third party. However, whether the quota was inherited, sold, or rented, the production of quota peanuts had to be in the county where the original quota land was titled.

The 1990 farm bill legislated a minimum national poundage quota and support-price escalator that raised the peanut loan rate based on estimated increases in production costs. The national minimum quota was set at 1.35 million tons (2,700 million pounds), and the loan rate for quota peanuts was set at $678/ton. The average *effective* national quota during 1993-1995 was about 1. 5 million tons. Effective quota was calculated by taking basic quota and adding "undermarketings," which allowed producers who experienced a production shortage due to poor weather to carry that year's shortfall of quota sales forward to the following year. The effective quota was nearly 80 percent of the average total national peanut production but exceeded domestic edible peanut consumption by about 50 percent in the mid-1990s (ERS, 1998). With this difference between the effective quota and actual domestic demand, the CCC was unable to find commercial markets at the quota support price and began to accumulate peanut stocks. These stocks had to be held in storage or sold as additionals at far lower prices. What had essentially been a no-cost program, where consumers paid higher prices than processors or foreign buyers but with little direct expense to the government, began to run up larger government costs (CRS, 2001).

## The 1996 FAIR Act

The 1996 farm bill, titled the Federal Agriculture Improvement and Reform (FAIR) Act, marked a third stage in the progression of farm policy toward direct payments for most crops. A basic feature of the 1996-2002 FAIR Act is planting flexibility. Fixed payments, known as Agricultural Market Transition Act (AMTA) or Production Flexibility Contract (PFC) payments, that are based on past production replaced

earlier deficiency payments tied to continued production of specific crops. The PFC payments are "decoupled" from prices and current planting decisions, so that farmers have a choice about what crops they plant (or even whether to plant at all) under the FAIR Act. Annual acreage reduction (ARP) programs that required land idling in some years by participants in the support programs were eliminated, and caps were set on loan rates for each crop. The loan rates continue to offer protection against low prices, but in lieu of placing crops into storage under CCC loans, the 1996 farm bill emphasized the option of commodities being sold in commercial markets, with farmers then applying for loan deficiency payments (LDPs) if the prices they received were less then the loan rate.

The FAIR Act also brought policy changes in the peanut program. Processors and consumers pressured Congress to lower the price of domestic edible peanuts and to reduce government costs resulting from national quotas that exceeded domestic edible demand. The FAIR Act lowered the loan rate for quota peanuts for the domestic edible market from $678/ton to $610/ton and eliminated the price escalators that had pushed loan rates up with rising production costs (CRS Brief, 2001). The minimum national quota and undermarketings were also eliminated, which allowed USDA to set annual poundage eligible for the domestic market based on demand estimates. The annual effective quota poundage was reduced from 1.47 million tons for the 1995 crop year to 1.15 million tons in the 1996 crop year (Table 2).

**Table 2. National Peanut Acreage and Production, Consumption, and Trade**

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|
| | ----------1,000 acres---------- | | | | | | | |
| Planted | 1,734 | 1,641 | 1,538 | 1,402 | 1,434 | 1,521 | 1,535 | 1,537 |
| Harvested | 1,690 | 1,619 | 1,517 | 1,380 | 1,414 | 1,467 | 1,436 | 1,336 |
| | ----------1,000 tons---------- | | | | | | | |
| Production | 1,696 | 2,123 | 1,730 | 1,830 | 1,769 | 1,981 | 1,915 | 1,632 |
| Effective Quota | 1,638 | 1,463 | 1473 | 1,150 | 1,230 | 1,275 | 1,268 | 1,289 |
| Additionals Production | 58 | 660 | 257 | 680 | 539 | 706 | 647 | 343 |
| Total Edible Consumption | 1,084 | 1,045 | 1,034 | 1,064 | 1,085 | 1,105 | 1,154 | 1,139 |
| Domestic Quota Use | 1,043 | 968 | 920 | 951 | 979 | 991 | 1,028 | 980 |
| Imported Peanut Use | 41 | 77 | 114 | 113 | 106 | 114 | 126 | 159 |

Sources: USDA, ERS. "U.S Peanut Consumption Rebounds," conversation with Scott Sandford.
USDA-TPD State Filings and PA-82R County Filings for production and quota as compiled by Jan Chvosta.

Under the FAIR Act, the effective quota has averaged 1.24 million tons during 1996-2000, only 82 percent of the effective quota average of 1.52 million tons for the pre-FAIR years of 1993-1995. Despite the reduced quota and a 9.3 percent reduction in average acreage planted, domestic peanut production has remained nearly constant. The average national production for 1996-2000 was 1.82 million tons, or 99 percent of the average of 1.85 million tons for the years 1993-1995. Overall, peanut producers are selling a relatively smaller proportion of their production at a lower quota support price for domestic consumption and a relatively higher proportion in the additionals market.

One reason for the declining effective quota is that the U.S. and other countries have entered into new agreements to increase agricultural trade. Foreign producers' access to the U.S. domestic peanut market increased from less than 4 percent of domestic consumption in 1993 to over 10 percent in 2000 (Table 2). This increase of imports was due to market-access provisions of the 1993 North American Free Trade Agreement (NAFTA) and the 1995 World Trade Organization (WTO) Agreement on Agriculture (ERS, 1998). NAFTA provides a tariff rate for peanuts grown in Mexico that declines to zero in 2008, when

tariffs on all products in Mexican/U.S. trade are scheduled for elimination. Peanut imports from other countries beyond a limited quantity are still restricted by high tariffs under the WTO agreement. But potential competitors in peanut producing countries such as Argentina and Brazil could become eligible for further reductions in tariffs under the Free Trade Area of Americas (FTAA) that is currently being negotiated or in future WTO negotiations (Fletcher and Smith, 2001). As long as peanut prices in the U.S. domestic market remain above world market prices, foreign producers will have incentives to seek additional access to the U.S. market.

Another change in the peanut program under the FAIR Act is that quota can be transferred (leased or sold) across county lines within a state, but not across state lines. This reform is being phased in until a maximum 40 percent of the quota in a state can move across county lines by 2002. This policy change has allowed some quota peanut production to move from higher-cost production areas to lower-cost areas. The largest shift of production has occurred in Texas, where nearly all allowed quota has been transferred from Central Texas to West Texas (Chvosta, Rucker, Thurman, 2001). Fewer quota transfers across county lines have occurred in other states.

## Proposed Elimination of Peanut Quotas

With the 1996 FAIR Act set to expire in 2002, the Agriculture Committee of the U.S. House of Representatives developed the "Farm Security Act of 2001" (H.R. 2646) which the Committee passed on July 27, 2001 and the House of Representatives passed on October 5, 2001. Included in the proposed farm bill are changes to the peanut program that would significantly alter the way production, prices, and government support have been managed since the 1930s. Under H.R. 2646, the quota support system would be replaced with a direct-payments program similar to other supported crops. The new peanut program would include three components: marketing loans, fixed decoupled payments, and counter-cyclical payments. In addition, peanut quota holders would be compensated for their lost quota rights. The quota-value compensation would be payments of $200/ton to be made annually for five years.

The House farm bill would make a uniform marketing loan program available for all domestic peanut production. Farmers would be eligible for the loan rate for current production, regardless of whether they qualified as an historic peanut producer under previous programs. The peanut loan rate set in H.R.2646 is $350/ton. As with other crops, the peanut marketing loan would offer a level of protection against low market prices. Producers would have the option of applying for a loan deficiency payment if prices were less than the loan rate and could then sell their peanuts in commercial markets.

For those farmers qualifying as historic peanut producers, additional income support would be provided under H.R. 2646 by fixed decoupled and counter-cyclical direct payments. An historic peanut producer would be any person who produced or attempted to produce (e.g. if the crop was destroyed by weather) peanuts on a farm in the U.S. during any of the crop years from 1998-2001. For these producers, H.R.2646 calls for the establishment of payment yield, peanut base acres, and payment acres to be used to calculate the production base for entitlement to payments.

Payment yield would be established by calculating the average yield for peanuts on a farm for the crop years 1998-2001. Peanut base acres would be established by calculating the average acreage planted or prevented from being planted to peanuts over the same period. Payment acres are 85 percent of the peanut base acres. Historic producers would be given a one-time opportunity to assign their peanut base acreage to specific cropland on a farm, but such base acres do not have to be located where peanuts were grown in the past. Peanuts would not have to be grown on the assigned peanut base acreage, or at all, in order to receive the government payments. Eligible producers must use the peanut base acres for some agricultural purpose or for conservation.

Under H.R. 2646, fixed decoupled payments would be paid on historic production at a rate of $36/ton in each of the crop years 2002 through 2011. These payments would be similar to PFC payments established by the 1996 FAIR Act for other crops and would be made to eligible historic producers regardless of the market price of peanuts or whether peanuts continue to be produced. The total amount of the fixed annual payment to a farmer would be calculated by multiplying the fixed payment rate times the payment yield times the payment acres.

The target price for peanuts is set at $480/ton for 2002-2011 by H.R. 2646. Counter-cyclical payments would be paid to eligible producers whenever the effective price for peanuts is below this target price. The effective price would be set by the higher of the national average market price during the 12-month marketing year plus the fixed payment rate or the national average loan rate plus the fixed payment rate. The counter-cyclical payment rate would then be the difference between the target price and the effective price. The amount paid to a farmer would be calculated by multiplying the counter-cyclical payment rate times the payment yield times the payment acres.

Counter-cyclical payments would vary depending on the effective price. A maximum counter-cyclical payment of $94/ton ($480/ton – ($350/ton + $36/ton) would be paid on historic production if market prices fell to the loan rate or lower. The farmer would be guaranteed the loan rate of $350/ton on all current peanut production. With the higher guarantee of $480/ton for payment yields on 85 percent of historic production, the minimum average return on the level of production equal to historic yield multiplied by historic peanut acres would be $460.50/ton (0. 85*$480/ton + 0.15*$350/ton). If the farmer owned all quota produced historically, the minimum return guaranteed for the next five years would be $660. 50/ton on historic production. This minimum return exceeds the current loan rate of $610/ton, but the farmer does not have to grow peanuts to receive the direct income support payments.

As the market price plus fixed payment rate rises above the loan rate, the counter-cyclical payment would be reduced below $94/ton. If the national average market price becomes $444/ton or higher ($480/ton - $36/ton), no counter-cyclical payment would be made. Incomes of historic peanut producers who continue to grow peanuts would usually be higher when prices go up than when market prices are lower, even though counter-cyclical payments are reduced. Incomes would be higher because the producers would be selling all their peanuts at the higher market prices, but the counter-cyclical payment would only be applicable to 85 percent of their historic output. Farmers would receive the fixed decoupled payment of $36/ton on 85 percent of historic production, regardless of market prices.

## SHIFTING PEANUT PRODUCTION AMONG REGIONS

The three major peanut growing and marketing regions are the Southeast, the Southwest, and Virginia-North Carolina. Two types of peanuts, Runners and Virginia, account for most of national production. On average, the Southeast produced 55 percent of the total national production during 1993-1999, with over 95 percent of its production in Runners. On average, the Southwest produced 31 percent of national production during 1993-1999, with 83 percent of its output in Runners and 16 percent in Virginia peanuts. The Virginia-North Carolina region produced 14 percent of the national peanut output during 1993-1999 and specialized almost exclusively in the Virginia peanut. Overall, Runners account for 75 percent of total domestic production and the Virginia peanut for 14 percent. The remaining production is Spanish and Valencia peanuts.

While total national production has remained steady in the years following the FAIR Act, significant shifts in production shares have occurred among regions. The Southeast and Virginia-North Carolina experienced

a 5 percent drop in average production for the years 1996-2000 compared to the 1993-1995 pre-FAIR average, while the Southwest boosted its production by about 31 percent during the same period. Recent peanut production in Virginia is shown in Table 3. Planted acreage in Virginia during the post-FAIR Act years averaged 17 percent less than during 1993-1995. Virginia production shows substantial variability over the years 1993-2000. The effective quota available to all Virginia producers has fallen to an average of 95,838 tons during 1996-2000 from an average of 118,115 tons during 1993-1995. Average production during 1996-2000 was 106,016 tons, about 94 percent of the average of 112,429 tons during 1993-1995. Only a small proportion of Virginia peanuts are sold as additionals; Virginia produces few peanuts specifically for the additionals market. In Virginia, as in most other peanut producing states, quota transfers across county lines have been small. About 7 percent of Virginia production has shifted among counties (Chvosta, Rucker and Thurman, 2001).

**Table 3. Virginia Peanut Acreage and Production**

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|
| | 1,000 acres | | | | | | | |
| Planted | 95 | 92 | 90 | 77 | 76 | 76 | 77 | 76 |
| Harvested | 94 | 92 | 89 | 76 | 75 | 75 | 76 | 75 |
| | 1,000 tons | | | | | | | |
| Production | 88.12 | 145.59 | 103.46 | 109.63 | 95.62 | 110.62 | 109.06 | 105.14 |
| Effective Quota | 122.45 | 117.91 | 113.98 | 86.91 | 95.55 | 98.29 | 99.17 | 99.28 |
| Additional Production (or under-quota) | -34.33 | 27.67 | -10.52 | 22.67 | 0.79 | 12.34 | 9.89 | 5.86 |

Sources: USDA-TPD State Filings and PA-82R County Filings for production and quota as compiled by Jan Chvosta.

Most peanut production is contracted for commercial sale rather than placed under CCC loans. Contract sales of Runners and Virginia peanuts from the three main producing regions from 1993-1999 are shown in Table 4. During the pre-FAIR period 1993-1995, the Southeast commercially contracted 82.3 percent of all Runners for the domestic market; but during the post-FAIR years of 1996-1999, the share of Runners contracted from the Southeast fell to 69.0 percent. The share of the contracted domestic Runners market from the Southwest went from 17.3 percent during 1993-1995 to 30.1 percent for the 1996-1999 period. This shift of contract shares reflects a small decline in contracted Runners from the Southeast (about 7 percent) and a substantial increase (nearly doubling) of contract sales from the Southwest. Although not shown in Table 4, a somewhat higher percentage of contract sales from the Southeast are quota peanuts compared to the Southwest, with the percentage sold as additionals rising in the Southwest as the total quantity marketed has increased. Thus, even though the Southeast contracts the largest quantity of Runners, in recent years the Southwest has contracted a larger quantity of additionals. While the Virginia-North Carolina region sells only a small amount of Runners, that amount has increased in the post-FAIR years. These Runners are typically sold as quota peanuts.

The Southwest region has also increased its contracts of Virginia-type peanuts from a pre-FAIR average of 43,017 tons per year to a post-FAIR average of 66,275 tons per year (Table 4). Over 80 percent of the Southwest contracts are for additionals. The Virginia-North Carolina region remains the major producer of the Virginia peanut. Virginia-North Carolina contracted an average of 251,677 tons of Virginia-type peanuts during 1996-1999, essentially unchanged from the average of 250,143 tons during 1993-1995. Over 85 percent of contracted sales in Virginia-North Carolina are for quota peanuts. Virginia-North Carolina accounts for about 75 percent of all national contracts of Virginia peanuts, but the Southwest now contracts a larger quantity of Virginia peanuts as additionals than Virginia-North Carolina. Contracts of Virginia peanuts from the Southeast are of limited and declining quantity and are divided between quota and additional peanuts.

**Table 4. Commercial Marketing Contracts for Runner Type and Virginia Type Peanuts, Tons.**

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | Average 1993-95 | Average 1996-99 |
|---|---|---|---|---|---|---|---|---|---|
| Regions | | | | | ***Runner Type*** | | | | |
| Southeast | 937,931 | 1,020,166 | 782,176 | 916,710 | 782,904 | 857,044 | 849,031 | 913,424 | 851,422 |
| Southwest | 210,600 | 172,605 | 192,455 | 281,443 | 355,105 | 410,937 | 437,535 | 191,887 | 371,255 |
| Virginia-North Carolina | 3,342 | 3,611 | 5,596 | 13,891 | 15,119 | 8,744 | 7,374 | 4,183 | 11,282 |
| **Total** | 1,151,873 | 1,196,382 | 980,226 | 1,212,043 | 1,153,127 | 1,276,724 | 1,293,940 | 1,109,494 | 1,233,959 |
| | | | | | ***Virginia Type*** | | | | |
| Southeast | 25,384 | 44,093 | 19,282 | 13,276 | 13,775 | 8,554 | 6,310 | 29,586 | 10,479 |
| Southwest | 44,980 | 52,992 | 31,080 | 45,537 | 61,403 | 87,828 | 70,331 | 43,017 | 66,275 |
| Virginia-North Carolina | 223,199 | 325,146 | 202,084 | 268,092 | 239,182 | 248,818 | 250,616 | 250,143 | 251,677 |
| **Total** | 293,563 | 422,230 | 252,446 | 326,905 | 314,361 | 345,200 | 327,258 | 322,746 | 328,431 |

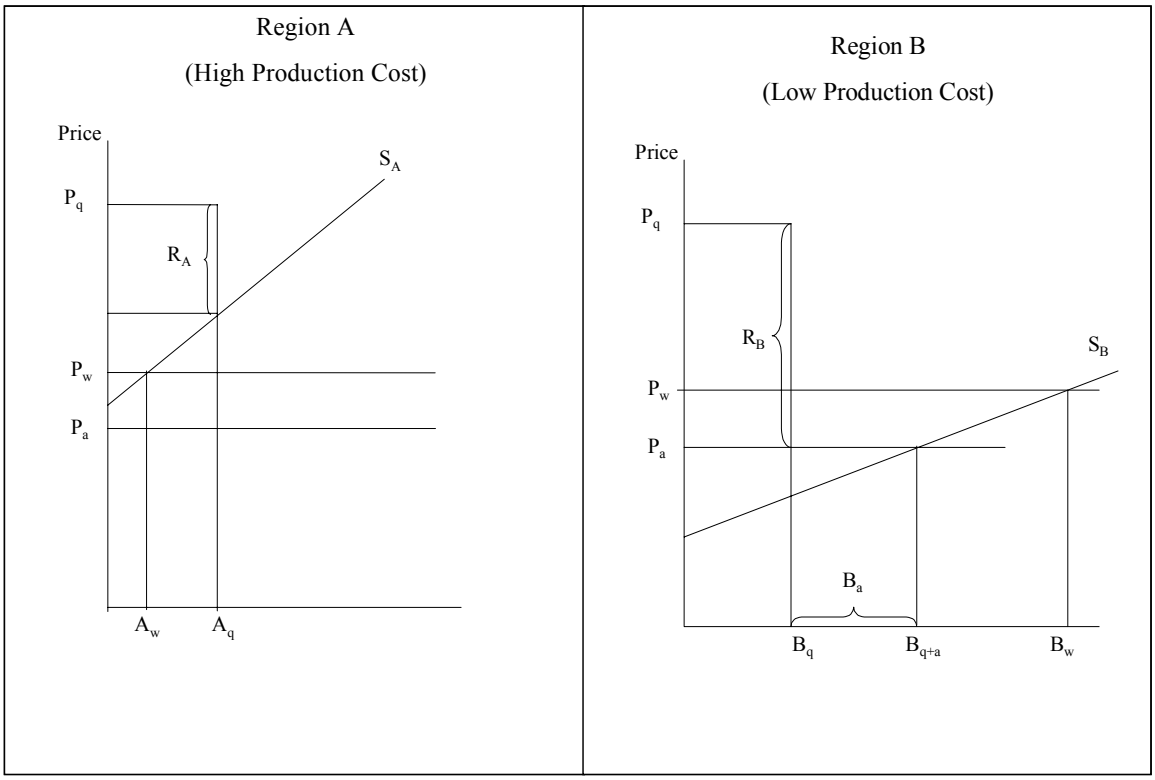
Source: USDA/FSA/TDP/ 30 March 2000. Compiled from ASCS-1007s

## Basic Economics of a Payments-Based Peanut Support Program

Under the quota system, production of peanuts for the domestic edible market is restricted to designated states, and peanuts are sold at either the relatively high quota support price in the domestic edible market or at the lower additionals price. The new peanut policy proposed in H.R. 2646 eliminates the restriction that production remain in designated states. It also separates the income achieved by historic peanut producers and former quota owners into two separate sources. The first source of income under the proposed new policy is revenue received from the market (or from LDPs) for continued production and sale of peanuts. The second source of income is the fixed decoupled and counter-cyclical payments plus the quota compensation payments that the government makes directly to past peanut producers and quota owners. These government payments do not depend on whether the historic producer or quota owner continues to produce peanuts. Under the current policy, some farmers produce quota peanuts and quota owners derive revenue under the incentive of the high supported price for domestic edible peanuts. Other farmers receive only the additionals price. Under the proposed policy, all farmers would decide whether to produce peanuts based on the same expected market prices (adjusted for regional and quality effects). As a consequence of this new policy, where peanuts are grown may change and so too may the level of total U.S. or Virginia peanut production.

To illustrate the basic economics of production location under a quota versus a direct-payment support system, suppose there are two types of regions: a high production cost region A and a low production cost region B, as shown in Figure 1. The supply functions for peanuts from the two regions are given by $S_A$ and $S_B$. Consider first a quota system with half the quota assigned to each region. The price is $P_q$ for the limited quantity of quota peanuts from a region and $P_a$ for any additional peanuts grown in the region.

**Figure 1. Production Regions A and B.**




Source: Adapted from Chvosta, Rucker, Thurman

Under a quota system, the peanut production in region A is $A_q$ and is exclusively for the quota market. The price for additionals is below the cost of production in A and none are produced. At quota price $P_q$, the rental rate paid for leased quota is $R_A$, which is the difference between the quota price and the marginal cost of production at $A_q$. The total value of rents paid for leased quota (or the equivalent amount of income retained by quota owners who also produce peanuts) is given by $A_q$ times $R_A$.

In region B, peanuts are grown for both the quota and additionals markets under the quota system. The quantity $B_q$ receives the quota price. The additionals price $P_a$ is above the marginal cost of production at $B_q$, and the quantity $B_a$ is produced for the additionals market and receives the additionals price. Total peanut output in region B is $B_{q+a}$. The rental rate paid for leased quota is $R_B$, which is the difference between the quota price and the additionals price, and is a higher quota rental rate than in region A because of the lower production costs in region B. The total value of rents paid for leased quota (or retained by quota owners who are also producers) is given by $B_q$ times $R_B$.

Next consider a switch to a market without quotas and government support provided by direct payments. The direct payments do not show up explicitly in Figure 1 and should not affect whether a profit-maximizing farmer in either region decides to produce peanuts, which is a decision that depends only on the market price and production costs. If the price were to remain at the level $P_a$ when quotas are eliminated, region A would not produce any peanuts and region B would continue to produce $B_{q+a}$ (for simplicity $P_a$ is assumed to be above the loan rate). The land once used to produce peanuts in region A would shift into some other crop or be put into conservation, but farmers and quota owners would still collect the direct payments to which they were entitled based on their past peanut production and quotas.

A more likely outcome with the policy change from quotas to direct payments is that the equilibrium price when the quotas are removed will be higher than the old additionals price $P_a$ but not as high as the old quota price $P_q$. This outcome is illustrated by price $P_w$ on Figure 1. At the new price $P_w$, production shifts from region A to region B. In region A, production falls from $A_q$ to $A_w$, and in region B production rises from $B_{q+a}$ to $B_w$. Neither region has quota rents, but historic producers and former quota holders still receive direct payments based on past production and quota. Producer income from the market falls in region A and rises in region B compared to producer income under the quota system. Producer income in this comparison is net of the former rents paid for leased quota or the equivalent amount retained by quota owners who also produce peanuts. Although peanut production and market income are lower in region A without quotas, total income of producers and quota owners could be higher or lower when the direct payments are added to the market income earned by producing output $A_w$ to maximize profits.

# ECONOMIC IMPACTS OF H. R. 2646 VERSUS THE FAIR ACT ON VIRGINIA PEANUT FARMERS

There were 702 Virginia farmers harvesting slightly less than 75,000 acres of peanuts in 1997, down from 935 farms and nearly 94,000 acres five years earlier. Nearly all peanut production occurs in southeastern Virginia, with Southampton (33 percent ), Isle of Wight (17 percent), Suffolk (14 percent), and Sussex (13 percent) being the leading producers during 1996-2000.

Under the current peanut support program, profits from Virginia peanut production are critically affected by the need of most peanut farmers to rent quota. Because peanut quota and land have been inherited or sold, a large proportion of Virginia quota is owned by non-farming landowners. According to the USDA Farm Service Agency (FSA), non-farming landowners own 151.4 million pounds of quota (79 percent of total Virginia quota), and peanut producers own 40.1 million pounds (21 percent). Quota is cash or share

rented from non-farming landowners on an annual basis along with the land, typically at a price equivalent to $0. 06/pound of quota. The peanut producer may be obliged to rent an entire farm from a quota owner, even though the peanut quota could be produced on only a small portion of the acreage. In any case, the common practice is to rent the quota and associated land but raise all peanuts on owned farmland. Rented farmland is often then used for other crops such as corn, small grains, soybeans, or cotton. Crop rotation considerations will play a critical role in determining where a particular crop will be grown in any given year.

Peanut production has been less profitable since the FAIR Act reduced the quota peanut loan rate and eliminated annual cost-of-production adjustments. Profit opportunities for the peanut enterprise in the past six years have been available only from lowering unit costs of production (either directly or through increasing yields) or by renting/buying more peanut quota. Diminished profit opportunities have likely been a cause (as well as retirements and other factors) of the decrease in the number of peanut farmers and the increase in average acreage farmed per producer.

## Characteristics of a Representative Southampton Peanut Farm

For purposes of estimating the before-and-after economic impacts of H.R. 2646, we have developed a representative peanut farm in Southampton County. Accurate data on farm characteristics are not available. The total crop acres, acres by crop, and quota have been developed from secondary sources and in consultation with local extension specialists to create a representative, large, commercial peanut operation. The principal characteristics of the farm are illustrated in Table 5. The farm has 1,171 total crop acres, with 267 owned acres dedicated to peanut production. To produce quota peanuts on this acreage, the farmer must rent 656,480 pounds of quota in addition to his/her own 138,192 pounds of quota (on average, 17 percent of total peanut quota is owned by peanut producers in Southampton County). Cotton is produced on 532 acres of owned and rented land; corn, wheat/double-crop soybeans, and full-season soybeans are planted on the remainder of the rented cropland.

**Table 5. Representative Southampton County Peanut Farm Characteristics**

| | Owned | Rented | Total |
|---|---|---|---|
| Crop Acres | | | |
| Peanuts | 267 | 0 | 267 |
| Cotton | 49 | 483 | 532 |
| Corn | 0 | 156 | 156 |
| Wheat/Double-crop Soybeans | 0 | 167 | 167 |
| Full-season Soybeans | 0 | 49 | 49 |
| Total Acres | 316 | 855 | 1,171 |
| Peanut Quota (pounds) | 138,192 | 656,480 | 794,774 |

Sources: USDA/Farm Service Agency; U.S. Census of Agriculture 1997.
Mike Roberts, Virginia Cooperative Extension (personal communication).
Note: Crops are rotated across both owned and rented land, and actual planting location will vary by year.

In addition to these crop acreage and quota characteristics, the representative Southampton farm is assumed to operate according to the yields, economic, and government program factors identified in Table 6. Farm yields and commodity program yields are taken to be equal to 1996-2000 county averages before and after assumed enactment of H.R. 2646. Historical prices are annual average Virginia cash prices for each commodity over 1996-2000. Future prices for all commodities but peanuts are the average of estimates for 2002-2010 by the Food and Agriculture Policy Research Institute (FAPRI), adjusted to a Virginia basis. Only corn is expected to have a higher average price over the next nine

years than its historic price. And given current cotton prices, which have dipped below $0.30/lb, it appears that the estimated future price of cotton is unlikely to be achieved. Costs of production are taken from Virginia Cooperative Extension budgets for 2001 and held constant for the analysis. Variable costs of production include all costs that vary with the scale of a crop's production. Fixed costs include enterprise overhead costs such as machinery capital recovery, insurance, and taxes, all of which must be recovered regardless of the scale at which a crop is produced. For purposes of this analysis, we assume that the rental rate for peanut quota land is $180/acre and that all other cropland (including peanut land when there are no quotas) rents for $50/acre. Rent is not included with variable or fixed costs (unless indicated) but is deducted separately as a farm overhead cost before calculating net income.

**Table 6. Historical/Future Yields and Economic Assumptions**

| | Corn | Cotton | Wheat/double-crop Soybeans | Full-season Soybeans | Peanuts |
|---|---|---|---|---|---|
| | ----------per acre---------- | | | | |
| | ***General Assumptions*** | | | | |
| Yield [a] | 105 bu. | 779 lbs. | 57 bu./28 bu. | 35 bu. | 2,984 lbs. (1.492 tons) |
| Variable Cost of Production [b] | $176 | $321 | $256 | $127 | $583 |
| Fixed Cost of Production [b] | $79 | $126 | $140 | $88 | $181 |
| Total Cost of Production | $255 | $447 | $396 | $215 | $764 |
| | ***Historical Values (1996-2000 under the FAIR Act)*** | | | | |
| Rent | $50 | $50 | $50 | $50 | $180 |
| Historical Price [c] | $2.15 | $0.599 | $2.98/$5.71 | $5.71 | $610 |
| Historical Program Base Acres [d] | 91 | 310 | 101 (wheat) | NA | NA |
| Historical Gross Margin per Acre | $50 | $146 | $74 | $73 | $327 |
| | ***Future Values (2002-2011 assuming H.R. 2646)*** | | | | |
| Rent | $50 | $50 | $50 | $50 | $50 |
| Expected Price [e] | $2.50 | $0.591 | $2.79/$5.13 | $5.13 | $400[f] |
| Future Program Base Acres | 91 | 310 | 101 (wheat)[g] | 49 | 267 |
| Expected Gross Margin per Acre | $86 | $139 | $47 | $53 | $14 |

[a] USDA/NASS Southampton County 1996-2000.
[b] Virginia Cooperative Extension Southeast District Farm Management Budgets 2001.
[c] USDA/NASS Virginia Annual Average Prices Received by Farmers 1996-2000.
[d] USDA/FSA. Program yields are assumed equal to county yields.
[e] FAPRI Forecasts 2002-2010, except peanuts.
[g] Market prices of peanuts without a quota program are unknown, but $400 per ton is a reasonable starting point.
[g] We assumed that double-cropped soybean acres will not be included as soybean base acres under H.R. 2646.

Future peanut prices are not estimated by FAPRI. If the peanut quota program is eliminated, we can assume that the U.S. price will gravitate towards the world market price, and $400/ton is used initially for this analysis. The farmer receives significant income from FAIR Act program payments on historic production of corn, cotton, and wheat program crop base acreage and yield. We also include supplemental AMTA payments appropriated by Congress during 1998-2000 but not disaster payments appropriated during 1996-2000. FAIR Act commodity program base acreages for corn, cotton, and wheat on peanut farms are estimated from county-level USDA/FSA data for all types of farms. We have likely underestimated current program base acreage on peanut farms. However, since program yields under

FAIR are fixed at 1981-1985 levels, we have likely overestimated program yields by using current yield levels. The net result (with the offsetting effects of these two estimates) is expected to be representative of peanut farms in Southampton County. Under H.R. 2646, fixed and counter-cyclical payments are provided for corn, wheat, soybeans, and cotton, as well as peanuts, and we include any such payments in our analysis.

## Market Income and Government Payments under FAIR

To provide a baseline for examining the economic impacts of H.R. 2646 on the representative Southampton peanut farm, the data from tables 5 and 6 are used to estimate enterprise production costs, market income, and government payments. Estimates of the average net farm-related income of the representative farm under the FAIR Act during 1996-2000 are shown in Table 7. "Net Return from Crop Marketings" are shown as returns from market sales of the commodities net of variable and variable plus fixed (total direct) enterprise costs. Since the quota peanut price is the effective market price, peanut sales provide $243,000 (41 percent) of the total sales of $591,300 (not shown in Table 7). Cotton sales represent a slightly higher proportion (42 percent) of farm sales, but peanuts generate higher net returns over variable or total direct costs. No crop other than peanuts and cotton covers the total direct cropping costs of production.

**Table 7. Costs and Returns under the FAIR Act (1996-2000), Southampton Peanut Farm**

| Crop | Net Cropping Enterprise Returns over Variable Costs [a] | Net Cropping Enterprise Returns over Variable + Fixed Costs |
|---|---|---|
| | ----------$---------- | |
| Peanuts | 87,405 | 39,177 |
| Cotton | 77,726 | 10,555 |
| Corn | 7,739 | (4,551) |
| Wheat/double-crop Soybeans | 12,313 | (10,988) |
| Full-season Soybeans | 3,556 | (770) |
| Net returns from Crop Marketings | 188,739 | 33,423 |
| Government Payments | 33,676 | |
| Rent | 71,350 | |
| Net Farm-related Income over Variable Costs + Rent | 151,065 | |
| Net Farm-related Income over Variable Costs + Fixed Costs + Rent | (4,251) | |

[a] Variable costs per enterprise do not include rent.

Notes: Historical prices, yields, base and planted acres from Table 6.
Figures in parentheses are negative.
"Net farm-related income" over variable costs, fixed costs, and rents is returns to overhead costs of the farm business not directly related to cropping enterprises, and to owner's management and equity. Debt servicing and family expenses are not included in costs.

The farm earns $188,739 net of production variable costs (Table 7) but pays $71,350 in peanut quota and land rent. Even though the farm receives no direct government payments for peanuts, commodity program payments for corn, wheat, and cotton total $33,676, bringing the net income from farm operations to $151,065. This total might appear to be a considerable sum, but such net income must pay for all crop machinery and farm overhead costs, non-machinery debt servicing and reinvestment, management of the operator, returns to the operator's investment in the farming business, and family living expenses. As

it is, the business is not quite able to cover total cropping fixed costs, and in reality, a representative peanut farm with these characteristics and operating under these conditions is not likely to be economically viable over the longer term. In short, the farm business is not covering its total direct cropping expenses, but it is kept afloat (given the assumed land and quota rental rates) only by government payments equal to 22 percent of farm-related income net of variable costs and rent.

## Market Income and Government Payments under H.R. 2646

Table 8 displays estimates of farm income assuming H.R. 2646 becomes law and using future prices shown in Table 6. Peanut prices would undoubtedly fall from quota support levels, and the current analysis assumes that Virginia peanut prices will average $400/ton. If the representative farm were to plant the same acreage as under the FAIR Act, the peanut enterprise would barely cover its variable costs of production. Cotton would provide 69 percent of total crop sales revenue, which would fall by $80,700 (14 percent) from the 1996-2000 FAIR Act level. No crop would generate enough revenue from sales to pay the total cost of its production. Government payments would more than double for the first five years of the farm program, primarily because of peanut quota buy-out and other peanut-related payments. During the quota buy-out years, net farm-related income over variable costs and rent is only slightly lower (-3.6 percent) than under the FAIR Act. After five years, if quota buy-out payments end as proposed in H.R. 2646, total government payments fall by $13,819 (17 percent), and net farm-related income would be lower than experienced under the FAIR Act.

**Table 8. Costs and Returns under H.R. 2646, Southampton Peanut Farm**

| Crop | Net Cropping Enterprise Returns over Variable Costs [a] | Net Cropping Enterprise Returns over Variable + Fixed Costs |
|---|---|---|
| | ----------$---------- | |
| Peanuts | 3,749 | (44,480) |
| Cotton | 74,489 | (7,391) |
| Corn | 13,472 | (1,182) |
| Wheat/Double-crop Soybeans | 13,775 | (9,526) |
| Full-season Soybeans | 2,562 | (1,765) |
| Net Returns from Crop Marketings | 108,047 | (47,270) |
| Government Payments [b] | 80,257 | |
| Rent | 42,750 | |
| Net Farm-related Income over Variable Costs + Rent | 145,554 | |
| Net Farm-related Income over Variable Costs + Fixed Costs + Rent | (9,762) | |

[a] Unless stated, net returns over variable costs per enterprise do not include rent.
[b] Includes quota buy-out of $13,819 that ends in 2006 under H.R. 2646.
Notes: Projected prices, yields, base, and planted acres from Table 6.
Figures in parentheses are negative. "Net farm-related income" over variable costs, fixed costs, and rent is returns to overhead costs of the farm business not directly related to cropping enterprises and to owner's management and equity.

## Effects of Peanut Prices and Quota Ownership

Prediction of post-quota program prices is especially difficult since there has not been a competitive U.S. peanut market since before World War II. The analysis in the previous section uses $400/ton as the

market price for peanuts assuming H.R. 2646 becomes law. Table 9 shows net farm-related income over variable costs, total direct costs, and rent with alternative peanut prices of $300, $400, and $500 per ton, holding expected prices for all other crops equal to the baseline shown in Table 8. If peanut prices are $300/ton, loan deficiency and counter-cyclical deficiency payments provide a safety net for the peanut farmer such that net farm-related income over variable costs and rent falls by only 2 percent from the baseline. Conversely, net farm-related income over variable costs and rent does not equal the level of 1996-2000 under the FAIR Act unless future peanut prices reach $450/ton. If prices rise to $500/ton, increased market returns cause net farm-related income over variable costs and rent to reach $170,491, exceeding the level under the FAIR Act by 13 percent. The representative Southampton peanut farm covers its total cropping costs of production when peanut prices are $460/ton and other crop prices are as given in Table 6. Again, if quota buy-out payments of $13,819 end after five years, net income would fall correspondingly.

**Table 9. Net farm-related Income under H.R. 2646 for Various Peanut Prices**

| | 300 | 400 | 500 |
|---|---|---|---|
| Net Farm-related Income [a] over | ----------$ per ton---------- | | |
| Variable Costs, Including Rent | 142,566 | 145,554 | 170,491 |
| Total Costs | (12,750) | (9,762) | 15,175 |

[a] Includes quota buy-out of $13,819 that ends in 2006 in H.R. 2646.

The effects of varying degrees of quota ownership are presented in Table 10. The characteristics of the farm examined in each scenario are identical to those described above, except for the amount of quota owned. Net farm-related income (including government payments) is shown for 1996-2000 under the FAIR Act and assuming H.R. 2646. If the peanut producer owns all quota produced, farm-related income over variable costs and rent increases substantially (18 percent) with H.R. 2646 during 2002-2006 over that of the FAIR Act, since $79,477 in quota buy-out payments are received. After 2006, when quota buy-out payments end, farm-related income over variable costs and rent falls to $131,735, or 27 percent below the corresponding FAIR Act level. A producer currently renting all his/her quota would not be benefited by the buy-out payments during 2002-2006, and net farm-related income would be 9 percent lower than the average FAIR Act level. Net farm-related income over total costs follows the same pattern. Only if a substantial amount of quota is owned will such a farm cover total cropping costs with other crop prices as given in Table 6 and peanuts at $400/ton.

**Table 10. Net Farm-related Income for Alternative Quota Ownership**

| | All Owned Quota | | Typical Quota | | All Rented Quota | |
|---|---|---|---|---|---|---|
| | FAIR | HR2646[a] | FAIR (from Table 7) | HR2646[b] (from Table 8) | FAIR | HR2646 |
| Net Farm-related Income over | ----------$---------- | | | | | |
| Variable Costs, Including Rent | 179,665 | 211,212 | 151,065 | 145,554 | 144,955 | 131,735 |
| Total Costs | (24,349) | 55,896 | (4,251) | (9,762) | (10,361) | (23,582) |

[a] Includes quota buy-out of $79,477 that ends in 2006 in H.R. 2646.

[b] Includes quota buy-out of $13,819 that ends in 2006 in H.R. 2646.

## Profit-maximizing Cropping under H. R. 2646

H.R. 2646 offers planting flexibility to peanut farmers who previously would lose revenue derived from high prices for quota peanuts if they shifted to other crops. Government payments do not vary with current acres planted to a program crop; hence, the peanut producer is free to plant nearly any crop on

his/her owned and rented acreage. This flexibility is of value to the representative peanut producer. Results of a net income maximization model are displayed in Table 11. The results are based on the expected prices from Table 6 (including $400 peanuts), the (albeit unrealistic) assumption that rotational considerations do not affect planting choices, and the assumptions that the land base (owned plus rented) remains at 1,171 acres and cotton equipment and time available are only sufficient to plant up to 700 acres. The results indicate that peanuts would not be a profitable choice on either owned or rented acres. Returns from cotton are such that 700 acres of owned and rented cotton land are planted, and 471 rented acres are planted to corn. Government payments are not affected by crops chosen in the current year, and the net farm-related income over variable costs and rent is approximately $30,000 higher for this profit-maximizing cropping pattern (with no peanuts planted) compared to the scenario in Table 8. The farm now covers the full crop production costs, earning a net return of $50,708. Stated another way, the peanut farmer who did not adjust his planting acreage to reflect new prices and planting flexibility would "pay" $30,000 for the decision to plant peanuts. This profit maximizing opportunity rests on the assumption that projected cotton prices occur as shown in Table 6 and that the farm also shifts its acreage out of wheat/double cropped soybeans (167 acres) and full-season soybeans (49 acres).

**Table 11. Profit-maximizing Farm Organization with H.R. 2646**

| | Peanuts | Cotton | Corn | Wheat/double-cropped Soybeans | Full-season Soybeans | Total |
|---|---|---|---|---|---|---|
| Owned Acres | 0 | 316 | 0 | 0 | 0 | 316 |
| Rented Acres | 0 | 384 | 471 | 0 | 0 | 855 |
| | ----------$---------- | | | | | |
| Net Cropping Enterprise Returns over Variable Costs | 0 | 98,012 | 40,676 | 0 | 0 | 138,688 |
| Government Payments | | | 80,257 | | | |
| Rent | | | 42,750 | | | |
| Net Farm-related Income over Variable Costs + Rent | | | 176,195 | | | |
| Net Farm-related Income over Variable Costs + Fixed Costs + Rent | | | 20,879 | | | |

Note: Assumes farm has base equal to historical plantings, peanut sales price of $400, does not change baseline total owned or rented acreage, does not consider rotational requirements, and no more than 700 cotton acres can be planted due to field time or machinery constraints.

For peanuts on owned acreage to enter the set of profitable crop choices, peanut prices would have to rise to $448/ton. If prices are expected to fall below this level, the representative peanut farmer would choose not to plant peanuts. If H.R. 2646 is enacted, Virginia peanut farmers would need to carefully assess their costs, price expectations, and profit opportunities under the dramatically changed economic environment.

# SUMMARY AND CONCLUSIONS

Peanuts are one of the most important cash crops in Virginia. The quota system has regulated production of peanuts for the domestic edible market since the 1930s. Quota peanut production exceeded domestic edible demand in the mid-1990s. To bring the market more closely into balance, the FAIR Act lowered peanut loan rate and made changes in how the effective national quota is determined. As a result of these legislated changes and increasing peanut imports under new trade agreements, effective peanut quota has fallen both nationally and for Virginia producers since 1996. Peanut acreage and production have declined in Virginia and in the Virginia-North Carolina and Southeast regions but have increased in the Southwest. Nationally, a higher proportion of total peanut production has been for the additionals market.

A new approach to peanut policy has been included in the Farm Security Act of 2001 (H.R. 2646). The peanut provisions of H.R. 2646, if enacted, would replace the traditional quota system of regulated production for the domestic edible market with a non-quota system of direct support payments similar to those for grains and cotton. A loan rate would still provide a minimum price guarantee for peanuts, but the guarantee would be lower than has been provided in the past. Past producers of both quota and additional peanuts qualifying as historic peanut producers based on production during 1998-2001 would be eligible for fixed and counter-cyclical direct support payments from the government.

If a direct-payment support program for peanuts replaces the traditional system of quota regulation of production, Virginia peanut farmers will face market situations and farm production decisions that are quite different from the past. Historic peanut producers and quota owners in Virginia would receive substantial direct payments from the government in compensation for the lower prices that are likely in the edible peanut market once the quota system is eliminated.

If a farmer owns the quota for peanuts grown, for the next five years H.R. 2646 guarantees a minimum return from market prices, LDPs, fixed direct payments, and counter-cyclical direct payments of $660.50/ton for their historic average output during 1998-2001. This guaranteed average return per ton is higher than the loan rate of $610/ton under the FAIR Act. However, Virginia farmers own only 21 percent of the quota for peanuts they grow. Farmers who have been renting quota will not receive the quota buy-out payments included in H.R. 2646, since these payments go directly to the quota owner, and the farmer is guaranteed only $460.50/ton for historic production with rented quota. A farmer renting peanut quota should see land rental costs go down because quota rental is no longer required to sell peanuts in the domestic edible market. But Virginia farmers may not see land rental costs go down by the full difference between peanut quota land rent and rent for non-peanut land of comparable productivity because quota rental costs in Virginia have generally been below the proposed buy-out level. Our diagrammatic analysis (Figure 1) illustrates that quota rental costs are lower in higher-cost production areas and that some production could move from relatively high-cost production areas to lower-cost production areas when quota limitations on the location of peanut production are eliminated. Such a shift of production out of the region could be the situation facing Virginia peanut growers if H.R. 2646 comes into effect. With the direct payments, it does not necessarily mean Virginia producers would be worse off, but it could change traditional cropping patterns and production.

These points are illustrated by considering the effects of H.R. 2646 for a representative commercial farm that has been planting peanuts in Southampton County. We have shown that under current farm policies and recent prices and yields, this representative farm produces peanuts, cotton, corn, soybeans, and wheat. Taking crop revenue and government payments into account, farm-related income exceeds

cropping enterprise variable costs and land and quota rents but does not quite cover the farmer's enterprise-related fixed costs. Under the assumptions that H.R. 2646 becomes the new farm policy, peanut prices are $400/ton, and other prices are at levels forecast on average for the next nine years, market sales revenue declines if the farmer continues with his/her current cropping decisions (primarily because peanut prices are lower), but direct payments from the government increase. Total farm-related income over variable costs and rent falls slightly, and the farm has a somewhat larger deficit when fixed costs are included in the analysis. This farm does better if we assume it owns all of the quota for its peanut production or if market prices for peanuts are higher than $400/ton in the future.

More importantly, if this representative farmer takes advantage of the planting flexibility allowed on peanut acreage under H.R. 2646, he/she can raise farm-related income over variable costs and rent by nearly $30,000 and earn a farm-related income over fixed costs of nearly $50,000 by shifting to cotton and corn production instead of peanuts, soybeans, or wheat. This specific result rests on projected cotton prices during 2002-2011 that are somewhat higher than current levels and ignores crop rotation considerations that make continuous cotton/corn undesirable. But this example of cropping decisions illustrates the opportunities that H.R. 2646 may provide by introducing a direct payment support program for peanuts. Virginia farmers will have to be conscious of the new calculus of maximizing farm income under such a new law. They will have to be responsive to very different options if the traditional quota system is altered as proposed.

# REFERENCES


Chvosta, Jan, Randal R. Rucker, and Walter N. Thurman. "Peanut Quota Markets and Peanut Production After FAIR. " Presented at annual meetings of the American Agricultural Economics Association Chicago, Illinois, August 2001.

Congressional Research Service (CRS), The National Council for Science and the Environment. *Farm Commodity Legislation: Chronology, 1933-98*. CRS Report for Congress, Washington, D. C. , February 1999.

Congressional Research Service (CRS), The National Council for Science and the Environment. *IB95118: Peanuts: Policy Issues*. CRS Issue Brief for Congress, Washington, D. C. , January 2001.

Food and Agricultural Policy Research Institute (FAPRI). *FAPRI 2001 U. S. Baseline Briefing Book*. FAPRI-UMC Technical Data Report 01-01, University of Missouri-Columbia, February 2001.

Fletcher, Stanley M. and Nathan B. Smith. "Peanut Policy. " Department of Agricultural and Applied Economics, University of Georgia, Fall 2001.

Shurley, W. Don. "U. S. Peanut Situation and Outlook For 1999/2000. " Department of Agricultural and Applied Economics, University of Georgia, August 1999.

Smith, Nathan B. "Peanut Policy Update," Department of Agricultural and Applied Economics, University of Georgia, May 2001.

Orden, David, Robert Paarlberg and Terry Roe. *Policy Reform in American Agriculture: Analysis and Prognosis*. Chicago: University of Chicago Press, 1999.

USDA, Economic Research Service (ERS). "A History of American Agriculture 1776-1990. " Found at http://www. usda. gov/history2/text11. htm.

USDA, Economic Research Service (ERS). "U. S. Peanut Consumption Rebounds," *Agricultural Outlook*, December 1998.

Sanford, Scott and Sam Evans. "Peanuts: Background for 1995 Farm Legislation," USDA, Economic Research Service (ERS), Commercial Agricultural Division, Agricultural Economic Report 710, April 1995.