

REAP Policy Paper No. 8

Peanuts are important in Virginia. Peanuts generate profits to farmers and stimulate the economies in the rural communities where they are produced. Government programs have helped support U.S. peanut prices above world prices, but with policy changes being considered, peanut prices could fall significantly. Some hard adjustments

may be facing peanut producers.

Peanuts have traditionally been an important crop for Virginia's farmers. Historically, peanut production has generated 15 percent of the cash receipts from the sale of all crops, with only tobacco and soybeans generating higher cash receipts. In addition, peanut production requires the purchase of inputs from local farm supply businesses, generating off-farm jobs for Virginians. The historically high market value of peanuts helps to increase Virginia's land values, sometimes generating higher land-use tax revenues for local governments in those counties assessing land-use taxes.

The peanut industry in Virginia is facing changes in national agricultural programs and market conditions. Possible changes in the existing United States peanut program that are currently being debated in Congress and changes in federal and state environmental regulations may significantly affect Virginia peanut producers. In addition, the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), the North American Free Trade Agreement (NAFTA), increasing demand for higher quality peanuts, and changes in consumer demand may also affect Virginia

REAP is the Rural Economic Analysis Program in the Department of Agricultural and Applied Economics, College of Agriculture and Life Sciences at Virginia Tech.

Forces of Change Affecting Virginia Peanut Producers

Gladys Mutangadura, James Pease, Darrell Bosch and Everett Peterson

peanut producers. While the impact of these forces on Virginia peanut production is not clear, this paper will outline the forces at work and suggest possible outcomes from these various agents of change.

Peanut Program

United States peanut production is currently controlled via poundage quotas, quota transfers, and a two-tier pricing system. Peanut quotas are established by the United States Department of Agriculture (USDA), with input from shellers, processors, and growers, and are based on an estimate of the coming year's domestic demand. Peanuts produced in excess of quota are called "additionals." Peanut quotas are allocated based on the production history of a particular farm. They can be sold or leased to another farm within the same county.

The two-tier pricing system consists of a quota support price and a lower support price for additionals. Only the peanuts produced on land having quotas are eligible for the quota support price; all other peanuts are eligible for the additionals price, assuming acceptable quality. The quota support price is based on production costs and can be adjusted upwards or held constant, but cannot be adjusted downward. The additionals price is established each year by the Secretary of Agriculture based on estimates projected to result in no-net-cost to the Commodity Credit Corporation (CCC) from the sale or disposal of peanuts. A minimum export price is also established by the CCC loan rate. In reality, farmers receive a mix of several prices, including discounts for such things as foreign matter, broken kernels, and loose kernels, rather than one price.

Gladys Mutangadura is a graduate research assistant, and James Pease, Darrell Bosch and Everett Peterson are associate professors in the Department of Agricultural and Applied Economics, Virginia Tech, Blacksburg, Virginia 24061-0401.

Table 1. Peanut price support levels and prices received by U.S. peanut farmers, 1978-1994.

	Price Support				
Year	Quota price (\$/ton)	Additionals price (\$/ton)	World price ² (\$/ton)	Ave. price received by U.S. farmers (\$/ton)	Ave. price received by Virginia farmers (\$/ton)
1978	420	250	400	422	426
1979	420	300	400	412	412
1980	456	250	435	502	486
1981	456	250	435	538	562
1982	550	200	474	502	514
1983	550	186	400	494	538
1984	550	186	425	558	524
1985	560	148	425	486	404
1986	608	150	400	584	622
1987	608	150	400	560	556
1988	616	150	400	558	554
1989	616	150	400	560	606
1990	632	150	400	698	662
1991	642	150	400	566	566
1992	676	132	400	600	636
1993	676	132	400	592	594
1994	678	132	400	620	550

¹Source: USDA(c). Prices rounded to nearest dollar. 1994 figures are estimates.

The peanut program not only ensures a stable supply of quality peanuts, it also maintains domestic peanut prices far above world market levels. The world market price (1978 - 1994) has averaged \$450 per ton (\$400/ton since 1986) on a farmers' stock basis (uncleaned and unshelled), while the United States quota prices have averaged \$592 per ton (Table 1). Most of the financial benefits, according to Harman, accrue to approximately 22 percent of the total number of producers who account for nearly 80 percent of the national quota production.

While the peanut program keeps supplies of peanuts stable and provides financial benefits to quota-holding producers, it also increases government expenditures and keeps consumer prices higher than might otherwise prevail. Government costs for the peanut program averaged \$11 million per year for the 1977 Farm Bill; \$5 million per year for the 1981 Farm Bill; \$12 million per year for the 1985 Farm Bill; and \$25 million per year for the 1990 Farm Bill. Estimates of the impact on consumers' costs vary from \$150 million to \$288 million annually or \$0.64 to \$1.23 on a per capita basis (Sanford and Evans, and Rucker and Thurman).

Trade Agreements

The original peanut program was established under the Agriculture Adjustment Act of 1933. Section 22 of that Act requires the Executive Branch to take actions limiting imports of any commodity which could undermine United States support programs, destabilize commodity markets, or be disruptive to agriculture-related businesses. Until GATT and NAFTA were implemented, this legislation allowed the United States to impose an annual limit on imported peanuts of 1.709 million pounds (shelled basis), or about 0.1 percent of domestic food use (excluding peanut butter).

The recently completed GATT agreement attempts to correct market access issues as one type of trade impediment. This provision requires all non-tariff barriers, such as import quotas and restrictive licensing, to be converted to tariffs. Once the initial tariffs have been set, all countries are required to reduce their tariff rates over a six-year period and all countries must allow a minimum level of imports. For the United States, the initial tariffs of 155 percent

²Minimum export price for CCC nonquota peanuts.
³Source: Virginia Agricultural Statistics Service, 1994.

of the transaction price of shelled peanuts and 192.7 percent of the value of in-shell peanuts are scheduled to be reduced to 131.8 percent and 163 percent, respectively, by the year 2000. All imports above the agreed to minimum access level are subject to these tariffs.

In addition, GATT requires that Section 22 of the Agriculture Adjustment Act of 1933 be relaxed by allowing low-duty imports of peanuts equal to 3 percent of domestic consumption during the 1986-1988 base period. This minimum access requirement could mean that 37,147 tons (shelled basis) of peanuts will be imported at a duty of \$60 per ton. The volume allowed under the minimum market access provision increases annually to 5 percent of the base period consumption, or to 61,911 tons (shelled basis) by 2000. In 1993, Canadian peanut butter imports equaled nearly 5 percent of the United States consumption. As a result, in a side-agreement to GATT, Canadian peanut butter imports into the United States are now restricted to an amount approximately equal to the 1993 import level.

In addition to GATT, the United States peanut industry will also be affected by NAFTA, which was signed by the United States, Canada, and Mexico. Canada does not produce peanuts, but transships peanuts from other countries, primarily Argentina, as peanut butter. Mexico, as a peanut producer, is a potential competitor with the United States peanut industry. Currently, Mexico's peanut yields average 50 percent of the United States peanut yields and acreage allocated to peanut production is about 10 percent of the United States acreage. Under NAFTA, Mexico was granted an initial duty-free import quota of 4,095 tons (shelled basis) of peanuts in 1994, slightly more than 10 percent of the minimum access level required under GATT. The Mexican quota will increase annually up to 6,013 tons (shelled basis) by 2007. Beginning in 2008, all peanut imports from Mexico will enter the United States duty-free. In addition, there are "country of origin" rules that require all peanuts and peanut butter imported from Mexico to be produced from Mexican grown peanuts.

Product Quality

GATT requires that participating countries establish a scientific basis for all health-related measures that affect trade and encourages countries to make greater use of international standards. However, quality measures affecting trade are difficult to enforce. A

general health concern in the international trade of peanuts is the level of aflatoxin. Aflatoxin is a potentially poisonous substance produced by molds, most notably Aspergillus flavus and A. parasiticus, that occur naturally in the soil. Insect damage to the peanut hull, allowing the pathogen to enter the plant, and plant stress from drought tend to cause increases in aflatoxin levels. Aflatoxin can be toxic and carcinogenic at certain levels if fed to humans and animals. United States processors and countries importing United States peanuts have placed limits on permissible levels of aflatoxin in peanuts and peanut products that are more restrictive than the current United States government standard. The United States peanut industry is currently phasing in stricter limits, and there are proposals to conduct chemical testing instead of using visual inspection and to provide price incentives to encourage production of high quality, aflatoxin-free peanuts.

Environmental Concerns

Closely related to quality concerns are environmental concerns. Peanut production in the United States is pesticide-intensive. Research is currently being done using alternative crop rotations such as cotton, castor beans, and sesame to help reduce pesticide usage by disrupting insect and disease cycles. Crop rotation can also help improve peanut quality by reducing the potential for aflatoxin to enter peanuts via insect damage to the peanut pods. Through the use of integrated pest management insect scouts to scout for economically destructive levels of insects and a computer program to identify conditions favorable to early leaf spot, reduced pesticide usage is also possible. These programs recommend the use of pesticides only when conditions will result in economic loss, rather than the traditional spraying every 14 days. Research to find other methods for reducing the levels of pesticide usage will continue to be of importance.

Trends In Consumer Demand

The level of total fat in food has become a major health concern for many consumers. While peanuts have no cholesterol and contain relatively little saturated fat, they are high in total fat. The concern over food fats may affect domestic peanut demand. In a recent consumer survey, only 46 percent of the respondents agreed that peanuts are a healthy snack; 28 percent agreed that peanuts are low in saturated fats (Carley, Fletcher, and Zhang). The total quantity of United States peanuts used in food products has

declined more than 10 percent since peaking in 1989, while real prices received by farmers have been stagnant. These factors seem to imply a decline in demand, but it is too soon to tell if this declining demand is a long term trend.

High yields and a quality edge will help Virginia producers stay competitive, but it will be important to offer peanuts that consumers want and to manage production and processing activities with an eye toward efficiency.

Virginia's Competitive Advantage

Virginians produce a high quality peanut which should be less susceptible to competition from imports compared to peanuts produced in other areas of the United States. The Virginia peanut is used in higher value consumer products such as premium salted nuts. In contrast, runners and Spanish peanuts produced in other regions of the United States end up in relatively lower value consumer products such as peanut butter. At least initially, it is likely that imported peanuts will be used in relatively lower value products.

Virginia/North Carolina yields tend to be higher than the United States average (Figure 1). As a result, Virginia/North Carolina peanut costs of production tend to be lower than the national average (Figure 2). Net returns to peanut production nationally average \$79 per ton of sales (1994 dollars); while Virginia/North Carolina producers average net returns are \$120 per ton of sales (1994 dollars) (USDA(a)). Thus, Virginia producers should be better able than producers in other regions to bear reduced prices caused by increased import competition and/or reduced support prices.

Figure 1. U.S. and Regional Peanut Yields, 1960-1991

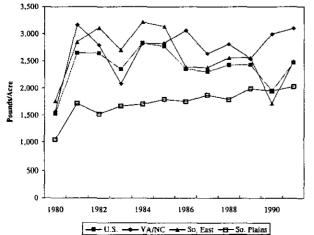
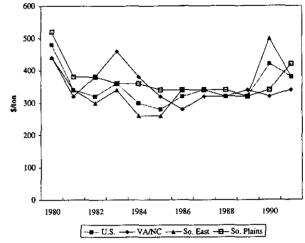


Figure 2. U.S. and Regional Peanut Cash Costs of Production Per Ton, 1980-1991



Sources: USDA(b), 1994

Potential Changes And Impacts On Virginia Peanut Producers

GATT and NAFTA have the potential impact of allowing increased imports of peanuts into the United States. United States peanut prices are supported above world prices, which means that processors could purchase imported peanuts at a lower cost than domestic peanuts. Mexico will be able to export up to 6,013 tons (shelled basis) annually of peanuts into the United States by 2007. There may be an economic incentive for Mexico to increase peanut production as duties fall to zero. The impact on the Virginia producer could be to decrease the demand for Virginia produced peanuts, if Mexican peanuts can be substituted at a lower cost.

With mounting political pressure to cut government costs and have a balanced budget, it is not likely that the current peanut program will remain intact. It is more probable that there will be, at least, a "no-net-cost" provision to shift costs to producers, shellers, and processors, and away from the federal government. Other alternatives have also been offered: eliminating the program completely and tightening the program to reduce government costs.

In general, changing the existing peanut program or eliminating it completely has the overall effect of reducing government and consumer costs while lowering net income from peanuts for Virginia peanut producers. Reducing net income to peanut producers will indirectly reduce the net income and employment in many other segments of the local economy because the producers have less money to spend. It could also result in a reduction in on-farm employment if farm workers are laid off to help reduce costs at the farm level.

If peanut quotas are removed, the value of the land on which peanuts are produced may be reduced in those localities applying a use value tax to the land. This reduction, which would occur over a period of time, since land-use taxes are established for a five-year period, would lead localities to either have to re-think their land-use tax assessment policies or to reduce their budgets to cope with reduced revenue. Reducing the budgets of the localities also reduces services such as education, police and fire protection, health care, etc., provided to residents.

Virginia peanut growers have a competitive advantage over peanut producers in other regions. To maintain this competitive edge, they will need to consider ways to deal with the environmental issues, especially if neighboring production areas do not enforce existing environmental regulations as stringently as Virginia. One way to reduce pesticide usage is to carefully time pesticide applications based on pest infestations. Pesticide usage can also be reduced by finding alternative crops, other than the traditional corn and soybeans, to rotate with peanuts. Crop rotation has the added advantage of potentially diversifying risk and expanding income.

Conclusions

The ramifications of trade agreements, environmental and quality concerns, consumption trends, and the peanut program are many and far reaching. Some changes, such as GATT and NAFTA, have already occurred. The effect of these may not be entirely obvious until specific revisions are made to the peanut program. The issues of environment and quality will have to be dealt with through research and changing production practices. To address changing consumption patterns, consumer education about the nutritive value of peanuts, development of new peanut products, and increased industry exposure is necessary. Proposed changes to government programs can reduce government program costs, but may also reduce consumer costs and income to producers. Reducing the income from peanuts will affect not only peanut producers, but all industries and localities related to the peanut industry in Virginia's rural communities.

References

Brooks, N. L. "Cost Distribution of U.S. Peanut Farms, 1991." in *Oil Crops Situation and Outlook Report*, OCS-41, Commodity Economics Division, Economic Research Service, U.S.D.A., Washington, D.C.: U.S.D.A., July 1994, pp. 17-19.

Carley, D. and S. Fletcher. "Facts Suggest Change." The Peanut Farmer 31:5 (May 1995), p.14.

Carley, D. and S. Fletcher, "U.S. Peanut Policy and Trade Issues - Impact on Peanut Farmers," *Journal of Agribusiness* 11(1993): 51-65.

Carley, D., S. Fletcher, and P. Zhang. "Estimated Impact of Various Consumer and Policy Factors on Peanut Product Consumption." *Peanut Science* 21 (1994): 34-39.

Committee on Agriculture, House of Representatives. "Amendments to the Agricultural Adjustment Act." 74th Congress, 1st Session, Serial E, 1935.

Council for Agricultural Science and Technology. Mycotoxins: Economic and Health Risks. Task Force Report No. 116, Ames, Iowa, November 1989.

Domenici, P. V. "The 1995 Farm Bill and the Budget." Testimony before the U.S. Senate Committee on Agriculture, Nutrition, and Forestry. Washington D.C., March 16, 1995.

Eason, D. (Representative of Export Producer Association), "Peanut Program: Changes are Needed to Make the Program Responsive to Market Forces." Testimony presented to the Subcommittee on Specialty Crops and Natural Resources, Committee on Agriculture, House of Representatives. Washington, D.C. March, 1993.

Food and Agriculture Organization of the United Nations. *FAO Production Yearbook 1994*. FAO Statistics Series, 48:125 (1995).

Harman, J., Peanut Program: Changes are Needed to Make the Program Responsive to Market Forces. GAO/RCED-93-18, Report to the Honorable Charles E. Shumer, House of Representatives. Washington, D.C.: U.S. General Accounting Office, February, 1993.

Johnson, T. and E. Wade., The Economic Impact of Agriculture in Virginia, VCE Publ. 448-217, Rural Economic Analysis Program, Department of Agricultural and Applied Economics, Virginia Polytechnic Institute and State University, Blacksburg, 1994.

Phillips, S. R. and L. A. Shabman. Agricultural Pesticide Use in Virginia's Chesapeake Bay Region, VCE Publ. 448-203, Rural Economic Analysis Program, Department of Agricultural and Applied Economics, Virginia Polytechnic Institute and State University, Blacksburg, 1991.

Rucker, R., W. Thurman, and R. Borges. "The Effects of The Uruguay Round GATT on U.S. Peanut Markets." Department of Agricultural Economics, North Carolina State University, Raleigh, July 1994. Rucker. R, and W. Thurman. "The Economic Effects of Supply Controls: The Simple Analytics Of The U.S. Peanut Program." Journal of Law and Economics. 33 (1990): 483-515.

Sanford, S. and S. Evans. *Peanuts: Background for 1995 Farm Legislation*. Agriculture Economic Report No 710. Commercial Agriculture Division, Economic Research Service. Washington, D.C.: U.S. Department of Agriculture, April 1995.

Shurley W., D. Carley, and S. Fletcher. *Peanuts: Background and Policy Issues for the 21st Century.* University of Georgia, Cooperative Extension Service, Athens, Georgia, 1994.

Swindale, L., "A General Overview of the Problem of Aflatoxin Contamination of Groundnuts," *Proceedings of the International Workshop, ICRISAT.* New Delhi, India, 1989.

USDA(a). Economic Indicators of the Farm Sector, Cost of Production, 1991 Major Field Crops and Livestock and Dairy. ECIFS 11-3, Agriculture and Rural Economic Division, Economic Research Service. Washington, D.C.: U.S. Department of Agriculture, February 1994.

_____(b). Effects of the Uruguay Round Agreement on U.S. Agricultural Commodities. Economic Research Service. Washington, D.C.: U.S. Department of Agriculture, March 1994.

(c). Oil Crops Situation and Outlook Report. OCS-41, Commodity Economics Division, Economic Research Service. Washington, D.C.: U.S. Department of Agriculture, July 1994.

(d). Peanut Stocks and Processing. GrLg6, National Agricultural Statistics Service. Washington, D.C.: U.S. Department of Agriculture, various issues.

Virginia Agricultural Statistics Service. Virginia Agricultural Statistics. Richmond, Virginia. Various years.

Virginia Cooperative Extension, Crop Enterprise Cost Analysis for Eastern Virginia. Eastern District Farm Management Staff. Virginia Polytechnic Institute and State University, Blacksburg, 1994.

Zhang, P., S. M. Fletcher, and D. H. Carley. "U.S. Demand for Edible Peanuts: A Time Varying Approach." Working Paper, Department of Agricultural and Applied Economics, University of Georgia, Athens, Georgia, 1993.

Virginia Cooperative Extension

1995 Publication 448-308/REAP P008
printed on recycled paper



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY Virginia Cooperative Extension programs, activities, and employment opportunities are available to all people regardless of race, color, religion, sex, 80g. veteran status, national origin, disability, or political artification. An equal opportunity affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. C. Clark Jones, Interim Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; Lorenza W. Lyons, Administrator, 1890 Extension Program, Virginia State, Petersburg.

