United States Department of Agriculture

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Economic Research Service

Economic Research Report Number 30

November 2006



# Eliminating Fruit and Vegetable Planting Restrictions

How Would Markets Be Affected?

Demcey Johnson Barry Krissoff Edwin Young Linwood Hoffman Gary Lucier Vince Breneman



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# **How Would Markets Be Affected?**

#### **Demcey Johnson, Barry Krissoff, Edwin Young, Linwood Hoffman, Gary Lucier, and Vince Breneman**

#### Abstract

Participants in U.S. farm programs are restricted from planting and harvesting wild rice, fruit, and most vegetables (nonprogram crops) on acreage historically used for program crops (known as base acreage). However, a recent World Trade Organization challenge to U.S. programs has created pressure to eliminate planting restrictions. Although eliminating restrictions would not lead to substantial market impacts for most fruit or vegetables, the effects on individual producers could be significant. Some producers who are already producing fruit and vegetables could find that it is no longer profitable, while others could profitably move into producing these crops. Producers with base acreage are the most likely to benefit because they would no longer face payment reductions.

**Keywords:** Farm programs, base acres, direct payments, vegetables, fruit, wild rice, planting restrictions

#### Acknowledgments

The authors gratefully acknowledge the helpful review comments from USDA's Anne Effland, Mitch Morehart, and Paul Westcott, Economic Research Service (ERS); Bill Chambers and Edward Rall, Farm Service Agency (FSA); and Carol Goodloe, Office of the Chief Economist; and from James Richardson, Texas A&M University; and Daniel Sumner, University of California at Davis. The authors also acknowledge the guidance of Philip Sronce and Bradley Karmen, FSA, in understanding the rules and regulations associated with fruit and vegetable planting restrictions. Thanks also to ERS's Linda Hatcher for editorial and production assistance, David Nulph for developing maps to illustrate the spatial data, and Victor B. Phillips, Jr., for the cover design.



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# Summary

Price and income support payments to farmers can influence production decisions. These subsidy programs insulate producers from fluctuations in market prices and raise farm household income. Under such a system, however, producers base their planting decisions for the subsidized commodities not only on information about market conditions, but also on government payments. Thus, in responding to distorted market signals, farmers may produce a different mix of commodities than they would otherwise.

Interest in market liberalization prompted U.S. policymakers to design and implement less distorting government programs. Farm legislation in 1996 and 2002 converted some support to decoupled payments. Decoupled payments are per acre payments based on historical plantings (also known as base acreage) of program crops and yields rather than on current market prices or production levels of the crops.

The 2002 Farm Act makes some payments to farms in proportion to their base acreage of traditional program crops—wheat, feed grains, upland cotton, rice, and oilseeds. Payments are tied to the amount of cropland enrolled in programs and to base acreage. Farmers producing nonprogram commodities may receive payments if they also produced program commodities in the past, but they are restricted in planting and harvesting wild rice, fruit (including nuts), and vegetables (other than lentils, dry peas, and mung beans) on base acreage. Fruit and vegetables are not supported by traditional commodity programs.

#### What Is the Issue?

In March 2005, the World Trade Organization (WTO) found that direct U.S. payments for cotton, and by extension all program commodities, do not meet the definition of decoupled payments because eligibility for payments restricts production of fruit and vegetables. This development draws into question whether the United States can continue to claim that program payments for any program commodity are "green box" supports, exempt from WTO regulations, without eliminating the planting restriction. In WTO terminology, "green box" supports are policies that are considered to "minimally" distort trade and are not subject to any limitations.

The quantity of fruit and vegetables produced and consumed is relatively small compared with that of program crops, and market demand is slow to respond to changing conditions. The concern is that, eliminating planting restrictions could shift acreage away from program crops, such as corn or soybeans, and into fruit and vegetables which could lead to a significant decline in prices. What are the possible effects on fruit and vegetable markets of ending planting and harvesting restrictions?

### What Did We Find?

Eliminating planting restrictions could affect individual fruit and vegetable markets, depending on the costs and returns for producing the specific fruit or vegetable, which vary across regions and over time. Farmers would be more likely to shift acreage away from program crops and into fruit and vegetables in regions where the land and climate are suitable for fruit or vegetable production.

Commercial production of fruit and vegetables is concentrated regionally, with much of the production in Florida and California. Eliminating planting restrictions may facilitate the move from program crops to fruit and vegetables in such areas as California, southeastern Washington, southern Idaho, the area stretching from North Dakota throughout the upper Midwest to northwestern New York and the coastal plain in Southeastern States. However, given the small amount of base acreage in Florida, removing planting restrictions would have little effect on any expansion there.

Farmers in these regions, however, would not necessarily make large acreage shifts because restrictions are not always binding. For example, farmers can plant fruit and vegetables on the portion of their cropland that is not base acreage without a reduction in payment. If nonbase cropland is not available, the farmer can lease or purchase nonbase cropland and reconstitute the farm to include the new acreage, again without incurring a payment reduction. Farm program rules currently permit fruit and vegetables to be produced on base acreage if the farm has a history of planting fruit and vegetables, but in these cases, payments on these farms are reduced by \$22 per acre on average. Nearly 5 percent of fruit and vegetable production was on base acreage in 2003 and 2004.

In many cases, barriers other than program rules, such as the need for specialized equipment, expertise, agronomic constraints, or labor for harvesting, dissuade producers from growing fruit or vegetables. Startup costs for new and sometimes existing growers of fruit and vegetables can be substantial. Higher production costs and greater risk are two reasons that producers may choose not to plant additional acreage to fruit and vegetables.

Because some fruit and vegetables are expensive to produce, program crop farmers are more likely to switch to less capital-intensive crops, such as dry beans, or to processing vegetables, such as sweet corn or tomatoes, than to fresh fruit. For example, producing cantaloupes in Arizona may require shaping beds, laying plastic mulch, hand thinning and weeding, pollinating, several passes with chemical control agents, irrigating half a dozen times during the season, and removing and disposing of the plastic mulch. At harvest, growers must arrange for harvest labor, haul the melons to a cooler where field heat is removed, and have the product delivered to market quickly. In contrast, harvesting equipment used in soybean operations would be more adaptable for dry beans and many growers already have the experience needed to produce dry beans.

Although the market effects of eliminating restrictions are likely to be small for most fruit and vegetables, the effects on individual producers could be significant. Some producers who are already producing fruit and vegetables could find that it is no longer profitable, while others could profitably move into producing fruit and vegetables. Producers with base acreage are the most likely to benefit because they would be able to realize additional revenue from planting fruit and vegetables.

#### How Did We Do the Analysis?

We examined planting restrictions from a farm, regional, and national perspective. Due to the wide variety of fruit and vegetables and limited information on potential market adjustments, we relied on production and price data from the census of agriculture and USDA's National Agricultural Statistics Service and on farm program data from the Farm Service Agency. We used data from the census of agriculture and Farm Service Agency to determine where program crops, wild rice, and fruit and vegetables are grown and where land constraints might be significant for farmers interested in expanding production. Our analysis of overall market effects was complicated by the lack of comprehensive and consistent data, the large number of commodities, and the limited estimates of relevant economic parameters. We use breakeven analysis and a simple market equilibrium simulation model to illustrate the basic economic tradeoffs. While a more extensive simulation would be informative, a comprehensive model that includes fruit and vegetable markets is not available. Building such a model was beyond the scope of this analysis.