Relaxing Fruit and Vegetable Planting Restrictions

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A recent WTO challenge to U.S. commodity programs has created pressure to eliminate fruit and vegetable planting restrictions on farms that operate on base acres.

If planting restrictions were relaxed, overall market effects would likely be limited, with the greatest effects in California, the Southeast, and the Upper Midwest.

Some producers with base acreage could benefit while others without base acres may find that production of fruit and vegetables becomes less profitable.

Fruit and vegetables have never been a major focus of U.S. farm programs, but a recent ruling by the World Trade Organization (WTO) places them at the center of policy discussions. At issue are the planting restrictions that apply to “base acres,” and whether billions of dollars of direct payments to U.S. farmers can remain exempt from internationally agreed-upon spending limits.

Under current U.S. farm legislation, recipients of direct and counter-cyclical payments can plant whatever they like on their base acres, including lentils, mung beans, and dry peas—except for fruit, vegetables, and wild rice. Payments tied to base acres are partially or fully forfeited when fruit and vegetables are harvested. Planting restrictions, in various forms, have been a feature of U.S. commodity programs for many years, but are now a source of controversy because of a successful Brazilian challenge to U.S. cotton programs. In March 2005, a WTO appellate body ruled that, because of planting restrictions, U.S. fixed, direct payments to cotton farmers could not be considered “minimally trade distorting” under terms of the Uruguay Round Agreement on Agriculture. This legal ruling draws into question whether the United States can continue to claim that direct payments are “green box,” that is, exempt from WTO obligations on trade-distorting support, without eliminating the restrictions.
In principle, elimination of the planting restrictions could expand the supply of fruit and vegetables, thereby reducing grower prices. Industry groups are divided on the issue. Growers are naturally concerned about the price-depressing effects of potential shifts in production, given the magnitude of base acreage (about 266 million acres nationally) and the small amount of acreage (over 12 million acres) currently harvested for restricted fruit and vegetables. On the other hand, vegetable processors tend to regard planting restrictions as a competitive obstacle—one that limits available acreage, raises procurement costs, and can accentuate risks of localized crop problems, such as diseases that render fields unsuitable for production. This argument carries special force in the Midwest and other areas where vegetables were traditionally grown, but where base acreage expanded under the 2002 Farm Act as a result of base acreage updating and the addition of historical soybean acreage. Some current fruit and vegetable producers argue that it would not be fair to allow new fruit and vegetable producers to continue to receive Federal subsidies.

ERS analysis suggests that if current planting restrictions were relaxed, acreage would most likely shift in regions where the land and climate are suitable for fruit and vegetable production, but nonbase acres are in limited supply. California and Florida account for a major share of fruit and vegetable production. Florida has a small number of base acres, which limits the potential impact on supply. Eliminating planting restrictions would most likely enable some producers to switch from producing program crops to producing fruit and vegetables in California, the Upper Midwest, and the coastal plain in the Southeastern States.

However, these regions would not necessarily experience large acreage shifts because current restrictions are not always binding for producers. For example, some producers circumvent the restrictions by leasing nonbase land, planting fruit or vegetables on owned (base) acres, and reconstituting the farm entity to preserve government payments. In other cases, the difficulty of securing sufficient labor for harvesting, the difficulty in establishing a preharvest marketing contract with buyers, and other agronomic or economic factors would deter many producers from growing fruit or vegetables. In still other cases, the loss of payments under the current program is simply too small to deter growers from switching into these crops.

### Base Acreage Constraints Greatest in California, Upper Midwest, and Southeast

According to the 2002 Census of Agriculture, about 434 million acres of cropland were available, of which about 12.5 million acres were used to produce fruit and vegetables. Data from USDA’s Farm Service Agency (FSA) show that 266 million acres of cropland were enrolled in the Conservation Reserve Program and not available for annual crop production. These data suggest that sufficient land is available to increase production of fruit and vegetables. However, a different story emerges when the data are disaggregated by region: base acreage constraints are not uniform across the country, and planting restrictions under current law might be significant only in certain regions.

Base acreage constitutes a particularly large share of cropland in the Corn Belt, Northern Plains, Mississippi Delta, and parts of the Southeastern States. Base acreage is significant in California, the top U.S. fruit- and vegetable-producing State, but accounts for a much smaller share of available cropland than in other regions. Florida, the second leading U.S. fruit- and vegetable-producing State, has very little cropland designated as base acreage.

Base acreage constraints may be limiting fruit and vegetable production in eastern North Dakota, a region where dry beans and potatoes are grown. Land constraints may also limit acreage shifts or expansion in southern Minnesota, central Wisconsin, northern Illinois, western Michigan, and western New York, where a variety of processing fruit and vegetables are grown. In California and Florida, fruit and vegetables already account for a large share of cropland. While fruit and vegetable acreage is high in the eastern coastal plain, southern Idaho, and central Washington, many counties in these areas would not experience large shifts in production if base acreage constraints were eliminated.
regions have more than 100,000 acres of additional nonbase land available for crop production.

Disaggregating the data helps identify areas where planting restrictions may limit fruit and vegetable production but does not identify the specific commodities likely to be affected by relaxed planting restrictions. Based on the share of cropland that is base acreage in States producing selected fruit and vegetables, planting restrictions have the greatest effect on production of dry beans, processing vegetables, and potatoes. The average share of base acreage in total cropland is about 20 percent in States producing citrus, and 70 percent in States producing dry beans.

**Many Farms Produce Both Program Crops and Fruit and Vegetables**

Many regions produce both program crops and fruit and vegetables. The same can be said about many producers. With their experience growing these crops, these producers would be prime candidates for expanding production of fruit and vegetables if the acreage constraints were eliminated. Many farms currently produce or have a history of producing fruit and vegetables on base acreage. Farmers who participate in the direct and counter-cyclical payment programs must annually report or “certify” the use of land on their farms with FSA. A close look at such data helps gauge the overlap between production of program crops and production of fruit and vegetables.

Based on State-level summaries of acreage reports and program enrollment data for 2003, farms that certified acreage planted about 2 percent of their cropland, or over 6.5 million acres, to fruit and vegetables. Thus, farms that certify acreage with FSA account for about half of land devoted to fruit and vegetables. These farms contain about 80 percent of land...
planted to vegetables, dry beans, and potatoes. Farms with certified acreage account for less than a quarter of the land devoted to production of fruit, nuts, and berries. Farmers may be less likely to plant fruit trees and vines on base acreage than they are to plant vegetables and melons because trees and vines require several years to mature, thus delaying harvest.

**Some Producers Find It Profitable To Forgo Direct and Counter-cyclical Payments . . .**

As noted earlier, 80 percent of potatoes, dry beans, and other vegetables are grown on farms with program acreage. Many of these farmers, with a history of producing fruit and vegetables on their farms, have assessed the benefits and costs of planting these crops on base acreage and have elected to forgo program payments. In 2003, producers gave up $13.5 million in direct and counter-cyclical payments on about 620,000 acres to plant fruit and vegetables.

This type of planting decision is evident in California, where land devoted to almond groves has increased sharply over the last decade, partly at the expense of cotton base acreage, which brings the highest per acre value of payments. The U.S. has been the world’s leading almond producer since 1977, contributing half of total output. Nearly all the U.S. crop is produced in California’s San Joaquin and Sacramento Valleys. Both domestic and export demand have been rising, with export value exceeding $1.6 billion in fiscal year 2006. With recent high prices, the prospective returns for almonds—a crop that takes years to bear fruit—are such that some cotton farmers have been willing to give up their direct and counter-cyclical payments. In other words, the value of expected net revenue from almond production exceeds the expected revenue plus government payments for cotton. While base acreage constraints could impede land-use shifts into almond production, they do not appear to be preventing the switch.

Generally, the per acre value of producing fruit and vegetables exceeds the per acre value, including government payments, of producing competing program crops. Corn direct payments of less than $25 per acre are small relative to expected revenue per acre from sweet corn production. Similarly, a farmer considering a switch from wheat production to dry beans might not consider program payments to be a significant barrier to switching. As a result, in 2003, many producers with a history of producing fruit and vegetables concluded that giving up payments that averaged $22 per acre to plant fruit and vegetables on base acreage made economic sense. This suggests that producers with base acres who make money from fruit and vegetable production have already expanded their production of fruit and vegetables; removing planting restrictions may, therefore, not have much additional effect.

**. . . but Agronomic and Economic Barriers May Limit Expansion of Fruit and Vegetable Production**

A producer who is considering a shift or move into producing fruit and vegetables also needs to consider the potential demand (or revenue) and cost factors, particularly the specialized costs for the selected commodity. For new growers, demand and cost factors can be prohibitive.

Producers who are expanding fruit and vegetable production need to consider potential product demand, the need to
locate, develop, and secure markets, and the prevalence of contracting in the sector. Market competition is intense for many fruit and vegetable growers. Most vegetables destined for processing are grown under contractual arrangements between growers and processors, and long-run demand is stagnant or declining, offering little chance for industry acreage expansion. Contracting is especially prevalent in the production of processing vegetables (tomatoes, sweet corn, green beans, and green peas), as processors require assurances of a crop’s volume and specific characteristics, such as variety, size, color, and timing of delivery to the factory.

While returns per acre can be substantial, the costs and financial risks of producing many fruit and vegetables (especially fresh-market crops) are high, creating significant barriers to switching land from program crops to fruit and vegetables. A number of products are labor intensive or require specialized harvesting equipment. Irrigation needs, high herbicide and pesticide costs, and specialized production and marketing expertise also impede the switch to those crops. Fruit production has its own limitations. It takes several years following planting for trees and vines to produce commercially marketable crops. During these nonproductive years, growers who plant on base acreage incur costs associated with maintaining the new crops as well as forgoing direct and counter-cyclical payments.

What Can We Conclude About the Market Effects of Relaxing Planting Restrictions?

Market effects of eliminating planting restrictions are likely to be limited and confined to specific regions and commodities. Supply shifts would be more likely in regions where the land and climate are suitable for vegetable production and nonbase acreage is in limited supply. Acreage in these regions would not necessarily shift significantly because current restrictions are not always binding for producers. 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, than to fresh fruit or vegetables. However, analysis of market effects is complicated because of a lack of comprehensive and consistent data, a large number of commodities, and limited estimates of relevant economic parameters. ERS research reflects these limitations.

While overall market impacts are likely to be small, impacts could be significant for individual producers, commodities, and regions. Producers with base acreage are the most likely to benefit because they may be able to realize additional revenue from harvesting fruit and vegetables. Under current program rules, these producers could expand production by forgoing direct and counter-cyclical payments for the current year, if expected net returns to producing the fruit and vegetables exceed expected net returns from producing the program crop, including program payments. If planting restrictions were eliminated, these producers would continue to receive direct and counter-cyclical payments. However, before switching any acreage into fruit and vegetables, farmers will need to carefully consider the startup costs and potential markets for their output.

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