

## Discussion and Implications

In principle, eliminating planting restrictions could expand the supply of fruit or vegetables, reducing grower prices. However, the results of our analysis suggest that market effects 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. However, acreage in these regions would not necessarily change significantly because current restrictions are not always binding for producers.

Analysis of market effects is complicated by the lack of comprehensive and consistent data, a large number of commodities, and limited estimates of relevant economic parameters. Our research reflects these limitations. Impacts could be significant for individual producers, commodities, and regions. Our examination of a specific commodity (dry beans) and regions (Cass County and 18 States) should be viewed as illustrative.

### Land Is a Minor Constraint for Many Farms

About half of the area devoted to fruit and vegetables is grown on farms that certify their acreage with the FSA and therefore are likely to receive program payments. Farm program rules permit these farmers to plant fruit and vegetables under certain conditions. A farmer can plant fruit and vegetables on the portion of his or her cropland that is not base acreage without a reduction in payments. 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 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 are reduced on an acre-for-acre basis. In 2003 and in 2004, payments on over 600,000 acres were forgone in order to plant fruit and vegetables on base acreage. Thus, nearly 5 percent of fruit and vegetable production was on base acreage. On average, these farms gave up payments of about \$22 per acre.

For farms that do not have base acreage—farms that are likely to be primarily fruit or vegetable farms or livestock farms—planting fruit and vegetables is not restricted. These farms can expand their production based on land availability and expected market returns.

### Effects of Base Acreage Constraints Vary Regionally

Commercial production of fruit and vegetables is concentrated regionally (fig. 4). Florida and California account for most production. We examined the regional distribution of base acreage, total cropland, and current fruit and vegetable production (figs. 7-9). Eliminating planting restrictions would most likely enable some producers to switch from producing program crops to producing 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 the Southeastern States. Opportunities to expand production in Florida onto base acreage are limited by the small amount of base available.

### **Barriers to Entry Would Limit Incentives To Expand Production of Many Fruit and Vegetables**

Startup costs for a new (and sometimes for an existing) grower of fruit or vegetables can be substantial. Agronomic and economic constraints limit incentives to expand production of many fruit and vegetables. Remember that fruit and vegetables include a diverse group of more than 100 individual commodities; each has specific production and marketing characteristics and limitations. Specialized production and marketing constraints limit incentives to expand acreage devoted to these commodities. A new grower would need to (1) develop specialized expertise, (2) invest in capital equipment and irrigation, (3) hire expensive and often difficult-to-obtain labor to harvest the crop, (4) modify program crop production practices by restricting herbicide use before switching to a food product, and (5) locate and develop markets or contracts for the crops.

Complicating an assessment of possible market impacts from relaxing planting restrictions is the considerable overlap that exists between growers of vegetables and program crops. Most vegetable production occurs on farms that certify their acreage with the FSA (i.e., generally recipients of direct and countercyclical payments); 80 percent of land planted to vegetables, dry beans, and potatoes is located on these farms. Four commodities (sweet corn, tomatoes, dry beans, and potatoes) account for most of this acreage. Relaxing the planting restrictions could result in expanded production of these four commodities because many producers have experience producing them. Markets would likely adjust to the policy change within 1 or 2 years, as was the case for peanuts.

### **Lower Valued Commodities Are More Likely To Expand**

The per acre value of fruit and vegetables are generally much higher than for program crops, reflecting higher per unit production costs. Consequently, investments in fruit and vegetables per acre may be far greater than for program crops.

The highest production costs are associated with some fruit and fresh vegetables. Given the cost structure, switching to less capital-intensive crops, such as dry beans, or processing vegetables, such as sweet corn or tomatoes, is more likely. When net returns are high, we would expect acreage to shift, as already occurred for almonds in California, despite forgoing as much as \$130 per acre of program payments.

Variation in rates of return is also an important factor for farmers in determining new investments. A comparison of the annual variation in per acre value of production for selected commodities found that the year-to-year variation greatly exceeds the annual value of direct payments. All else equal, a farmer would be more likely to continue planting program crops

and receiving direct payments than to switch to planting a commodity that has a greater variation in returns.

### **Illustration of National Market Impacts Suggests Relatively Small Effects**

We used a simple supply and demand model to illustrate potential adjustments that might occur for the dry bean market. Dry beans were selected because they are one of the commodities where producers would likely expand production if planting restrictions were eliminated due to their agronomic and economic characteristics. Based on our assumptions for the analysis, we found that, if planting restrictions were eliminated, program participants would expand dry edible bean plantings by about 83,000 acres. Nonparticipants would reduce dry bean plantings by 56,000 acres, leaving a net increase of about 27,000 acres. The price of dry edible beans would decline, reducing gross returns per acre, while prices and gross returns per acre would rise slightly for other crops.

### **However, Net Returns Would Increase for Some Farmers, But Would Decline for Others**

Various pieces of information presented throughout this report support the conclusion that, while overall market impacts are likely to be small, impacts could be significant for individual producers. Some current producers would find that production of fruit and vegetables is no longer profitable, while others would gain. The producers who have base acreage stand to benefit from elimination of current payment reductions. Under current program rules, these producers could expand production by forgoing direct and countercyclical 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 countercyclical payments. Their crop production decision would be based on expected profit from producing the fruit and vegetables compared with expected profit from producing the program crop. Finally, we note that the peanut market adjusted similarly in 2002 when marketing quotas were ended. More efficient producers expanded, while others reduced production as the peanut market adjusted.