ERS Report Summary
Diet and Health

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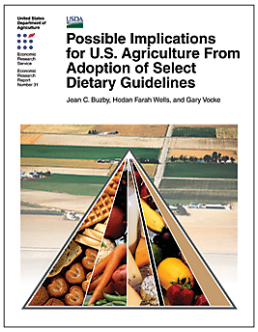

This is a summary of an ERS report.

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Possible Implications for U.S. Agriculture From Adoption of Select Dietary Guidelines

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The latest *Dietary Guidelines for Americans* was released in January 2005. In April 2005, the *Guidelines*' companion MyPyramid Food Guidance System was released and replaced the 1992 Food Guide Pyramid. A major focus of the new *Guidelines* is to encourage Americans to consume fruit, vegetables, dairy products (particularly fat-free or low-fat milk products), and whole-grain products, while staying within caloric recommendations.

What Is the Issue?

Currently, the average American diet falls short of the daily recommendations for fruit, vegetables, whole grains, and milk and milk products in the 2005 *Dietary Guidelines for Americans* and in the supporting MyPyramid Food Guidance System. If Americans were to bring their diets fully in line with these recommendations, changes in the mix and quantity of foods produced in the United States would undergo some major shifts.

What Did the Study Find?

If Americans were to fully meet the *Guidelines'* recommendations for fruits, vegetables, total grains, and whole grains, U.S. agriculture would need to harvest 7.4 million additional acres of cropland per year, an increase of 1.7 percent of total U.S. cropland in 2002. Additionally, U.S. dairy farmers would need to raise annual production of milk and milk products by an estimated 108 million pounds (about a 65-percent increase) for Americans to meet recommendations for dairy consumption. Such an increase in dairy demand would likely require an increase in the number of dairy cows, an increase in the volume of feed grains needed, and, possibly, an increase in the acreage devoted to dairy production.

Fruit. Americans would need to increase daily fruit consumption by 132 percent to meet the new dietary recommendations. The additional demand could require U.S. producers to more than double harvested fruit acreage to 7.6 million acres (from 3.5 million). U.S. fruit production is constrained by land, labor, and climate, making it likely that imports would continue to increase as a share of the total U.S. fruit supply.

Vegetables. To meet the new recommendations for vegetables, Americans' daily vegetable consumption would need to rise by about 31 percent and the mix of vegetables consumed would need to change. For example, consumption of legumes would have to increase by 431 percent, and consumption of starchy vegetables would have to decline by 35 percent. To meet this

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increased demand, the area harvested for vegetables in the United States would need to increase by about 137 percent from 6.5 million acres to 15.3 million acres.

Milk and milk products. Americans would need to increase their consumption of dairy products, including fat-free or low-fat milks and equivalent milk products (e.g., nonfat yogurt), by 66 percent (requiring an additional 111 billion pounds of milk per year) to meet the new dietary recommendations. Domestic production could account for 108 billion pounds of that increase, most likely by expanding dairy cow inventories, an action counter to long-term industry trends.

Whole grains. To meet the dietary recommendations, Americans would need to increase their daily consumption of whole grains by an estimated 248 percent and reduce their consumption of total grains by about 27 percent. Because it takes less raw wheat to produce a whole-grain product than a similar refined-grain product and because of the decline in total-grain intake, the overall drop in demand could translate to producers' harvesting about 5.6 million fewer acres of wheat each year.

How Was the Study Conducted?

The authors used both the ERS Food Availability data and the ERS Food Guide Pyramid Servings data, which are the ERS Food Availability data adjusted for plate waste and other food losses and converted to daily per capita servings. These data series are proxies for actual food consumption. The authors assumed a consumption level of 2,000 calories per day for the average American, which corresponds with the level used throughout the examples in the *Dietary Guidelines* and which is consistent with the level on the Nutrition Facts labels that the Food and Drug Administration requires on most packaged foods.

The analysis is a straightforward extrapolation from the data, not an equilibrium model. For each food group covered here, the authors calculated the percent change in per capita daily consumption needed to meet the dietary recommendation and then multiplied this percent change in consumption by the *total availability* of that food group in the United States to estimate the new level of food needed. Within each food group, the authors then calculated the change in U.S. production needed to meet the new recommendations using the consumption change estimates and calculated the domestic acreage needed to meet the new production levels. For these calculations, the authors (1) fixed the consumption mix of individual foods at 2003 levels (i.e., no substitution), (2) held exports constant at the average of 1999-2003 levels, and (3) fixed relative shares of production and imports at the average of 1999-2003 levels.

The analysis did not analyze the decreases in meat, added fats and oils, and caloric sweetener consumption needed for Americans to meet the *Guidelines*' recommendations. Had these food groups been incorporated in this analysis, their impacts may have offset the increases in consumption and production noted here, but, without explicit analysis, the net effect is uncertain.