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Links between dietary recommendations and farm income for horticultural crops

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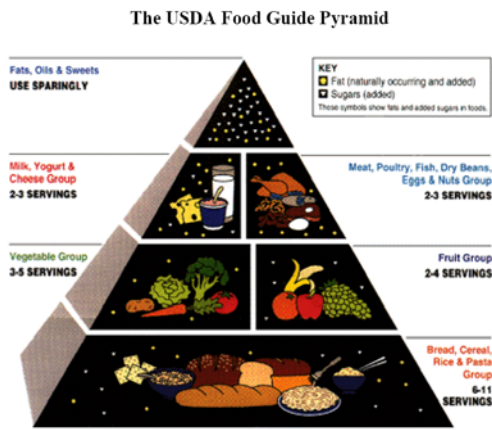
Recent evidence reports that 65% of Americans are either overweight or obese, and this percentage rate is nearly double what it was in 1995. In an effort to combat the obesity epidemic, there is an increased focus on the health benefits associated with consuming fruits and vegetables. If consumption patterns moved towards a diet with a greater share of fruits and vegetables, the health costs associated with obesity would decrease; it would also lead to benefits for producers of specialty crops.

One mechanism that has been used to combat obesity is dissemination of nutrition information and food guides. Although the USDA food guides have been the most visible, others are achieving increasing public recognition. Quite often the recommendations from non-USDA food guides differ significantly with respect to the consumption of foods such as grains, plant-based oils, meat and dairy products, fruits, vegetables, and even wine. Alternatives to the USDA food guides include Harvard's Healthy Eating Pyramid, the Mayo Clinic Pyramid, the Traditional Mediterranean Diet Pyramid, Atkins Model, and the Dietary Approaches to Stop Hypertension (DASH) plan, among others.

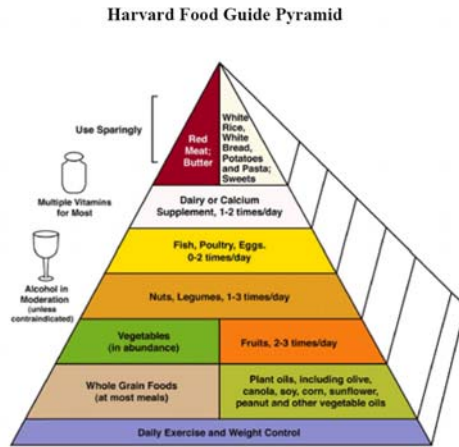
Based on the current consumption patterns in the United States, we highlight the economic effects that compliance with four different dietary plans would have for selected agricultural markets (Figure 1 provides illustrations of the four dietary plans examined here).

The first step in our analysis extracts nutrient recommendations for each of the four diet plans. Implications for agricultural products from consumer compliance with dietary plans are assessed in a two-step approach. First we simulate required changes in the demand for nutrients, and second, we calculate the changes in revenues for horticultural crops given the nutrient composition of the product.

Figure 1. Illustrations of the four food guides



Source: USDA: Center for Nutrition Policy and Promotion, 1992.

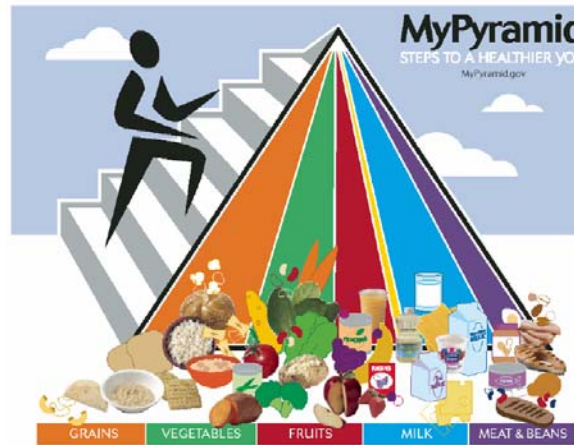


Source: Willett, W.C., 2001.

Mediterranean Food Guide Pyramid



Source: Cloutier, M., 2001.



Source: United States Department of Agriculture: Food and Nutrition Service, 2006.

Given compliance with the selected diet recommendations, Table 1 shows the changes in revenues for fifteen horticultural crops that are grown in New York State. Compliance with each diet plan would increase revenues for all of the horticultural products listed, however, compliance with the Harvard diet plan would most often generate the greatest revenue gain. For many horticultural products, compliance with the diet regimes would increase grower revenues by at least 20%. Revenues for the selected products would increase by an average of 29.5% under compliance with the Harvard diet plan. However, compliance with the USDA regimes and the Mediterranean regime showed results that closely trail those for the Harvard regime; for these diets average revenue would increase by at least 14.1% and up to 24.5%.

Table 1. Percent changes in revenues of agricultural products under alternative diets

Selected Agricultural Products	USDA FGP 1992	Harvard	Mediterranean	My Pyramid 2005
	<i>Percent change</i>			
Apples	15.4	31.7	23.7	13.2
Bell Peppers	20.8	49.9	36.0	21.2
Broccoli	21.1	49.2	39.1	22.5
Carrots	18.3	45.6	30.8	17.4
Cauliflower	22.8	55.5	41.3	24.2
Cherries	14.0	26.1	21.6	11.2
Fresh Tomatoes	18.0	40.9	30.7	18.4
Grapes	11.4	16.9	16.2	7.6
Onions	14.2	26.6	22.5	11.6
Peaches	14.2	27.7	22.4	12.6
Pears	16.4	34.9	25.7	14.4
Potatoes	14.1	25.8	22.2	11.4
Spinach	21.8	53.7	42.0	24.2
Strawberries	18.3	41.1	29.8	17.2
Sweet Corn	13.6	25.1	21.6	11.8
Average	14.4	29.5	24.9	14.1

Source: Rickard and Gonsalves. 2008.

Reference

Rickard, Bradley J. and Jana L. Gonsalves. 2008. How would compliance with dietary recommendations affect revenues for agricultural producers? *Food Policy*. Elsevier Ltd. 33. January 2008.

“**Smart Marketing**” is a marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews elements critical to successful marketing in the food and agricultural industry.

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