

Recent studies show that farmers face a unique production challenge — trying to improve the nutritional quality of available food without hindering food access or food choice for consumers, while also addressing environmental factors such as population growth, climate change, rising energy prices and biofuel production.¹

In order to be effective, meet food demands and protect the environment, farmers need to stay informed about current food choice trends and agriculture policies. As a consumer, you can support farmers by understanding how diet choices influence nutrition and affect the environment, as well as how those choices influence farmers and land use.

ASSESSING THE ENVIRONMENTAL IMPACT OF FOOD CHOICES²

Our food choices directly affect the environment in terms of land use and efficiency. In 1992, the U.S. Department of Agriculture (USDA) introduced the first Food Pyramid to the nation. Ironically, if everyone in the U.S. ate in accordance with the USDA's current MyPyramid model, the nation would be able to feed everyone with the existing land supply, though it would need to reallocate some resources to provide more fruits and green leafy vegetables.³ Getting everyone to eat products produced in the U.S. and comply with nutritional standards, however, is challenging and could have a large economic impact.

Many people face one of three challenges when making diet and nutrition choices — food availability, food access (affordability) and food choices — but the importance of each factor varies over time and location. These challenges can lead to severe consequences; four of the 10 leading causes of death in the U.S. — coronary heart disease, some cancers, stroke and diabetes — are associated with diet and food education.

Given the direct connection between diet, nutrition and the environment, our food choices have the potential to decrease our personal foodprint and our nation's overall foodprint. When assessing environmental impact, you should consider diet in its entirety. A recent study of land requirements in New York State, for example, found that a strictly vegetarian diet required less than a half an acre to provide adequate nutritional needs for one person for one year, whereas a diet low in fat and high in meat required more than two acres.⁴

The field of research about the environmental impact of food choices is still growing. You can access more studies, including the one mentioned above, on our [reference page](#).

BUILDING CONNECTIONS BETWEEN FOOD CHOICE, NUTRITION AND THE ENVIRONMENT

- **Eat More Plants:** Replace meat and cheese with healthier beans, legumes, whole grains and extra servings of fruits and vegetables.
- **Eat Less Meat:** It takes more land to raise beef cattle than any other meat-supplying animal. Substituting plant protein (legumes, nuts, etc.) for livestock sources generally reduces the land requirements for growing feed crops while still supplying adequate nutrition for you and your family.
- **Reduce Excess Caloric Intake:** As a nation, the U.S. has moved away from the well-informed, daily recommendations from the USDA.³ Cutting excess calories from your diet addresses both environmental and resource issues, as well as health problems associated with obesity.⁴

¹ Peters, C. J., Fick, G. W., & Wilkins, J. L. (2003). Cultivating better nutrition: Can the Food Pyramid help translate dietary recommendations into agricultural goals? *Agronomy Journal*, 95, 1424–1431.

² Ibid.

³ U.S. Department of Agriculture and U.S. Department of Health and Human Services. (2010, December). *Dietary guidelines for Americans, 2010*. 7th Edition, Washington, DC: U.S. Government Printing Office. Retrieved from <http://www.cnpp.usda.gov/DGAs2010-PolicyDocument.htm>

⁴ Peters, C. J., Bills, N. L., Wilkins, J. L., & Fick, G. W. (2009). Foodshed analysis and its relevance to sustainability. *Renewable Agriculture and Food Systems*, 24(1), 1–7.

⁵ Peters, C. J., Wilkins, J. L., & Fick, G. W. (2007). Testing a complete-diet model for estimating the land resource requirements of food consumption and agricultural carrying capacity: The New York State example. *Renewable Agriculture and Food Systems*, 22(2), 145–153.