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# FoodReview

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The Food System and  
the Environment

Trends in Milling and Baking



## Editor's Notes

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As we think about the environment and our relation to it, we are reminded to think globally, act locally.

We as individuals and as a generation do not own the earth and its resources. Future generations will depend on these same resources. Therefore, we must be good caretakers, or stewards. Thinking globally, acting locally involves stewardship—the careful management or wise use of resources.

We need resources to feed, clothe, and shelter ourselves. We also require resources for recreation and leisure activities, such as when we enjoy mountain scenery, a tennis match, or even read a book. Sometimes our needs and interests compete for the resources we have available to us.

We are consumers, requiring resources to go about our business, but we are also producers, working to transform resources into desired goods and services. However, not all who produce have a say as to what is produced or how, and what prices are charged.

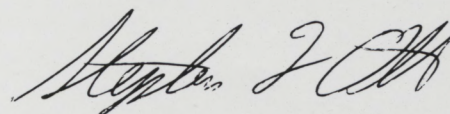
Often we are unaware of the human effort required to produce goods or provide services. Human resources, just like natural resources, can be exploited. Thus, the treatment and compensation of labor become part of the costs associated with using resources wisely. Our desire for more goods and services at lowest possible prices, or more time to enjoy what we already have, takes its toll on the environment and workers. Improving our personal welfare often comes at the expense of common resources.

Balancing the demands of the competing interests of the environment, other consumers, workers, and ourselves is the crux of stewardship. For example, consider the choices an organic fruit and vegetable farmer makes in trying to be a steward of his resources. Not wanting to cause any chemical pollution, the farmer chooses not to use synthetic fertilizers or pesticides. While organic practices may lessen the impact of agricultural activity on the environment, they often come at the cost of reduced farm output and increased labor. Higher costs mean the farmer needs higher prices, but higher prices drive away consumers who otherwise would purchase his produce.

The organic farmer might cut expenses by reducing the wages he pays his workers. However, he doesn't want to offer lower cost organic produce at the expense of those who toil to produce it. Instead, he could accept less profit for himself. But he has needs, such as educating his children or providing for his parents. Of course the farmer could abandon his prohibition against synthetic fertilizers and pesticides, but this goes against his environmental concerns.

Balancing the competing interests of our limited resources isn't easy. All of us have to make choices every day. Every time we get into our cars, turn on our home heater or air conditioner, make a charitable contribution, or recycle our aluminum cans and newspapers we are balancing the competing interests of the environment, ourselves, other consumers, and those who provide us with goods and services.

In this issue of the *Food Review* we explore some of the economic-environmental relationships involved in producing, processing, and transporting food.



Stephen L. Ott  
Economics Editor



# FoodReview

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### The Food System and the Environment

- 2 Pesticides: How Safe and How Much?**  
Using pesticides is cost effective—they return more to farm income than they cost. But consumers question pesticides' safety in relation to food, water quality, farm workers, and wildlife. Changes could be costly.
- 6 The Delaney Clause: New Interpretations**  
EPA's new policy on pesticide registrations shifts from zero tolerance for carcinogenic pesticides required by FDA's Delaney Clause to negligible risk. The issues surrounding the change are complex and still being studied.
- 8 Environmental Concern Sparks Renewed Interest in IPM**  
Integrated Pest Management is a pesticide-reducing farming system that also saves money. Total benefits to farmers in 15 States that use it exceed \$500 million. The system becomes more important as State and Federal regulations on pesticide use tighten.
- 12 Agriculture and Water Quality Conflicts**  
Losses from water pollution cost billions of dollars, not just to agriculture but also to recreation, commercial fishing, and municipal water sources. Public policies to protect water quality stress the importance of joint, cooperative efforts.
- 15 Ethanol in Agriculture and the Environment**  
The Clean Air Act and the Persian Gulf War refocused public attention on ethanol. However, current production is unlikely to contribute significantly to U.S. energy supplies without government subsidies. Ethanol's limitations can be resolved but it will take some restructure.
- 21 Managing Solid By-products of Industrial Food Processing**  
Currently, less than 3 percent of food processing by-products are landfilled. Instead, many food firms turn them into useful products such as animal feeds, other human foods and additives, and fuel. Many are high-value products.
- 27 Refrigerated Transportation: CFC's and the Environment**  
The refrigerated trucking industry is searching for safe, reliable chemicals to replace CFC's that are scheduled to be banned by the U.S. government by the end of the decade. Restructuring the industry is expensive and will increase the cost of hauling perishable products.
- 31 Food Packaging**  
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- Food Research and Policy**
- 34 U.S. Flour Milling on the Rise**  
Interest in healthy eating and convenience sets the pace for an almost steady annual rise in flour consumption that reached 135 pounds per capita in 1990. Many milling companies have changed hands and several have more than doubled their mill numbers and daily capacities in the past 20 years.
- 39 U.S. Baking Industry Responds to Consumers**  
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