Food Sustainability
Feeding the World Responsibly

A look at how we might successfully feed the growing human population in a way that is affordable, just, and sustainable.
Our need for food in order to sustain life is one of the few things that all humans have in common, and the production, delivery, and consumption of food are major components of our economies. They also represent a significant fraction of our collective assault on the ecosphere. In addition, issues surrounding food accessibility are often socially destabilizing, sometimes to the point of stimulating conflict, which, besides the obvious social implications, presents a further threat to environmental sustainability. This issue of *EM* attempts to dip our collective toes into the very deep water of what is a critical question: how can we feed the growing human population in a way that is affordable, just, and sustainable?

In the first article, Carol McCabe and Michael Nines examine the environmental management challenges of the food and beverage industry across its life cycle, from the sourcing of raw materials, through the consumption of energy and water, and into the management of waste. Food is a substantial fraction of the manufacturing industry in the United States, and many of the issues facing manufacturing in general are found in the food industry.

Next, Sedef Sert considers the relationship between food insecurity and the potential to use “surplus food” from the supply side to address that important issue. This article looks at ways in which organizations in the food production system can partner with community organizations to make this surplus food available to those most in need.

Catherine Birney and coauthors look at the “food prints” of citizens on the consumption side, recognizing that 35 percent of edible food in the United States is essentially wasted by choice—that is, the habits and practices of ordinary people divert healthy food products from the human nutritional path to the waste stream. The authors consider individual, community, and organizational actions that can be taken to reduce this loss of a high-level and environmentally costly commodity.

Finally, Kumar Venkat discusses the climate change implications of our present food production and delivery system. This article summarizes a life cycle perspective on 134 food commodities in the United States showing, among other things, that the production and processing of food account for two thirds of the greenhouse gas emissions attributable to food waste. This waste may account for 10 percent of all food-related emissions and 2.5 percent of all U.S. greenhouse gas emissions.

These perspectives on food sustainability help illustrate the breadth of the issue, as well as the opportunities for improvement through better management at all levels of our food system. While certainly not exhaustive, it is hoped that this will inform the reader about the issue of food sustainability, and perhaps stimulate involvement in solutions to the problems described. *em*

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**In Next Month’s Issue…**

**Global Air Quality**

Over the past 40 years, the United States has achieved incredible improvements in air quality and human health. This success can be attributed to a pioneering approach to air quality management with cooperation among state, local, and federal governments. Yet globally, air pollution still is responsible for more than 5 million deaths each year. The U.S. Environmental Protection Agency (EPA) and other federal partners are working with governments around the world to improve air quality management by exporting knowledge and capabilities, including technology transfer, policy best practices, and capacity building. Articles will explore aspects of these efforts around the globe.