

SUSTAINABLE DEVELOPMENT
AND
FOOD PRODUCTION FOR THE FUTURE

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INTRODUCTION

“Mom, what’s for dinner?” may very well be a question that disappears from our vernacular. Where, when, how, and why we eat are changing. Our foods and the way they are grown, processed, and packaged are changing as well. These changes are sending the picturesque Norman Rockwell scenes of family dinners to the museums and filling our children’s heads with questions of from where does food really come. Their answers are usually Oscar Meyer and Sarah Lee.

As we approach 2022, will we face the predicted fears of Harry Harrison of that year, in his novel Make Room! Make Room!, which was made into the movie Soylent Green? Are his predictions of the effects of the trends of over-crowding, shortages, and a crumbling infrastructure coming to pass? Will natural foods, fruits and vegetables, become extinct? Will life with a burgeoning population and global warming and our only way to survive it be faced through water rationing and subsistence on synthetic foods like the author’s creation, “Soylent”? Science fiction, you say? Are you sure?

Harry Harrison’s novel provides social commentary on the need for sustainable development. Yet, what strides are we making in the food industry to insure that we have the ability to feed future generations?

SUSTAINABLE DEVELOPMENT

“Food is important. In fact, nothing is more basic. Food is the first of the essentials of life, our biggest industry, our greatest export, and our most frequently indulged pleasure. Food is also the object of considerable concern and dread. Probably nothing is more frightening or far-reaching that the prospect of running out of food”

(Belasco, vii). In times of financial struggles and lack of societal confidence in the financial systems, Americans return to their cultural memories of previous times when Americans struggled to provide food for their families. “Given the mounting environmental concerns about population growth, global warming, soil erosion, water scarcity, agro-chemical pollution, energy shortages, diminishing returns from fertilizers, and so on, it does seem justified to wonder” (viii). “The increasing demand on agriculture to deliver high quality foods, animal feeds, fibers, bio-products, and bio-energy, using environmentally sustainable practices, highlights the need for both public and private R&D in the creation and adoption of new products and technologies” (Onwulata, et al., 40).

IMPACT OF FOOD ON HEALTH

As humans, we are seeking methods to live longer and healthier. “We are in the middle of a war over the future of food and health is the key battle front. According to Lang and Heasman (2004), nutrition and health need to be placed at the heart of food policy in the future” (Cited in Blackman, 10). New sciences are paving the way to connecting health concerns to food production.

“Nutri-genomics has developed to the extent that we now understand how nutrition and particular dietary intake alters the structure and expression of genes and genetic pre-potential. With the ability to understand the interaction of genes, diet, ingredients and lifestyle, it is now possible to deliver a personalized approach to food and health” (Blackman, 7). What we need now is for the food industry to answer the challenge to provide the necessary nutritionally based products for mass consumption.

ENSURING SAFETY OF FOOD AND FEED

While science has been seeking to address the nutritional factor of foods, it must also address societal concerns over food safety. “The public became increasingly worried by food contamination scares, the discovery of a virulent new variant of Creutzfeldt - Jakob disease (Mad-Cow) thought to be caused by contamination of cattle feed, and findings on the contamination of organic food with GM organisms. The litany of food safety scandals persuaded both suppliers and consumers that public health was in the interests of all” (Blackman, 8).

While there is a general concern to develop safer food processing methods, the public sees little in the way of change. There is also a growing concern that genomically altered foods may not be safe. “For vast numbers of consumers, they demand stronger proof that these (genetically engineered) foods are safe. In fact, they demand stronger assurances of safety than they do for many other foods or nutritional supplements” (Charles, 304).

“Food may be available, but not necessarily in desirable, aesthetic, cultural, functional, or cost conditions. Food quality is a major issue for fresh agricultural products and processed foods alike” (Onwulata, et al., 44).

“Pollsters confirm that nine out of ten of us are demanding what the trend-trackers have dubbed the Clean Food Diet, which is described in The New York Times as ‘foods free of artificial preservatives, coloring, irradiation, synthetic pesticides, fungicides, ripening agents, fumigants, drug residues, and growth hormones,’ as well as foods that are ‘processed, packaged, transported, and stored to retain maximum nutritional value. By far the biggest surge in food marketing is toward clean food and natural products” (Kimbrell, 269).

When will the food industry meet these challenges?

CONCLUSION

“[Food production] is a matter of dealing with the complexities of nation-states, trans-national corporations, trade policy and so-called trade barriers, markets or lack of them, supply and demand, our human greed and our human compassion, our excitement at competition and our pleasure in cooperation” (Holthaus, 20) Ultimately, it is the consumer that controls food consumption; and therefore, food production. “It is always important to remember that the human spirit is stronger than corporate greed or governmental incompetence—we can have the food system that we want if we vote with our feet and our food dollars” (Kimbrell, 282).

According to Onwulata, et al, the USDA is emphasizing four strategic goals to improve food production, processing and packaging in the United States:

- (1) To ensure high-quality, safe food and other agricultural products,
- (2) To sustain a competitive agricultural economy,
- (3) To enhance the natural resource base and the environment, and
- (4) To provide economic opportunities for rural citizens, communities, and society as a whole” (44).

While these goals make the move toward improving our food industry, they do not give a complete picture of what is needed. Onwulata, et al outlines a list of opportunities that need exploration by food researchers in our near future.

- ◇ Identify new processing technologies to protect and concentrate nutrients into foods.
- ◇ Develop and implement new methods to improve processing and end-product quality.

- ◇ Develop healthy and flavorful, value-added products.
- ◇ Develop knowledge of bio-metabolism—nutrient/food interaction.
- ◇ Improve overall quality.
- ◇ Create new technologies to limit waste and loss of by-products.
- ◇ Improve food security.
- ◇ Explore the application of nanotechnology to food packaging. (47).

Perhaps, with the answering of these questions, we can avoid making the science fiction of Harry Harrison a science fact.

REFERENCES

- Belasco, W.J. (2006). *Meals to come: a history of the future of food*. University of California Press.
- Blackman, C. (2005). A healthy future for Europe's food and drink sector? *Foresight : the Journal of Futures Studies, Strategic Thinking and Policy*, 7(6), 8-23. Retrieved November 22, 2008, from Research Library database. (Document ID: 955432131).
- Charles, D. (2001). *Lords of the harvest: biotech, big Money, and the future of food*. Cambridge, MA: Perseus Publishing.
- Harrison, H. (1967). *Make room! Make room!* London: Penguin Books.
- Holthaus, G. (2006). *From the farm to the Table: what all Americans need to know about agriculture*. University Press of Kentucky.
- Kimbrell, A., ed. (2002). *Fatal harvest: the tragedy of industrial agriculture*. California: Island Press.
- Koons-Garcia, D. (1995) *The Future of Food*. [Film]. Mill Valley, California: Lily Films.
- Onwulata, C., Flora, F., and Kramer, W. (November 2008). *Global Opportunities in Agri-food Science and Technology*. Food Technology. Retrieved November 22, 2008 from www.ift.org.