



CONTRA: FOOD SAFETY AND MARKET FORCES

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The past century has seen three remarkable advances in food and health. First, foods are cleaner, fresher, and far less likely to be dangerously contaminated than they once were. Second, the discovery and isolation of essential micro-nutrients, ranging from vitamins C and D to folic acid, and subsequent improvements in diets and foods, have prevented millions of deaths and serious illness. Finally, the green revolution and the adoption of modern agricultural methods have greatly increased the efficiency of farming. This, combined with commensurate improvements in food processing, storage, and distribution, has so reduced food costs as to make even moderately developed nations nearly immune to the catastrophes of famine and mass malnutrition.

These advances have been brought about largely through the application of technology, including pasteurization; cheap and reliable canning, refrigeration, and freezing; and the improvement of the genetic components of nearly every basic foodstuff including wheat, rice, and other widely consumed vegetables and fruits. Genetic manipulation was accomplished through crude, time-consuming methods such as cross fertilization, but the results allowed food supplies to grow faster than population despite the most rapid population increases ever seen.

All this was achieved primarily through competitive forces as farmers and manufacturers seized upon new technology and improved the general

welfare while pursuing private gain. Regulatory forces, such as nutritional labeling, have played at most a very small role. In the case of the United States, restrictions on label contents have impeded competitive improvements in foods and in information about foods.

The question now is whether the forces that have achieved so much will be blunted by regulatory restrictions. Irradiation, a powerful and harmless method for decontamination, has been stymied by regulation and alarmists. Far more important, however, is the fate of so-called genetically modified organisms (GMOs), sometimes called biotech foods. Regulatory and alarmist fears have threatened to impede or completely halt this tool for improving foods.

Essential aspects of GMOs have been suppressed in the public debate. The first is the simple fact that what is new is not the modification of the genetic composition of food, but the means for achieving it. Modern biotechnology offers infinitely faster and more precise methods for doing what used to be done by trial and error in extremely crude fashion. Whereas investigators once had to wait years or decades to see whether an experimental plant yielded new benefits without offsetting harms, one can now predict and assess the properties of new variants in far less time.

Even more important is the ability to target modern gene technology at precisely what is essential, without the dangerous excess baggage in traditional plant evolution whether achieved by nature or investigators. Plants naturally contain pesticides – thousands of them – but those pesticides can threaten humans as well as pests. Carcinogens and other toxins are common. Biotechnology methods, with their greater precision, can yield plants with new pesticides that threaten only pests, not people. The same principle of safer targeting applies to other advances such as making plants more productive or resistant to freezing, without the myriad

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unknown changes that accompany old-fashioned genetic manipulation.

The implications are clear. The popular assumption that GMOs are inherently riskier than traditional GMO foods is misconceived. Policies based upon that misconception are likely to mislead rather than guide consumers, as U.S. Food and Drug Administration has recognized. Worse, such policies create an irresistible invitation for the creation of vested interests. The protection of inefficient producers from new entrants, especially firms in poor nations, has been a fixture in international politics. As the United Nations has pointed out, biotech foods could be a boon for the people of poor nations, but unnecessary restrictions on biotech foods in the EU and other wealthy nations could forestall the spread of the benefits of biotech foods.