

## **Bringing Reason to the Biotechnology Debate**

### **First GMO Apple Stirs Emotions**

Okanagan Specialty Fruits of Summerland, British Columbia, has asked the U.S. Department of Agriculture to approve a genetically modified apple, named "Arctic", that won't brown soon after it is sliced. The news brought an emotional reaction from many quarters. The anti-GMO advocates in the U.S., fresh from a triumph over GMO sugar beets, smelled more blood. Organic growers worried about cross pollination, an issue easily dealt with by suitable buffer zones. And marketers worried that permitting one genetically modified apple could put the reputation of all apples at risk. They are well aware that the anti-GMO activists would be willing and eager to stir that particular pot.

#### **Setting Aside Emotion**

However, it is time to have a rational debate about the potential role of genetic modification in apples and other perennial crops. First, it needs to be recognized that any approval process for this first GMO apple will take many years, mountains of data, many hearings before USDA and other relevant federal agencies such as the FDA and EPA, prolonged appeals, and possible litigation, as in the recent case of sugar beet. Throughout this process, the Arctic apple deserves a fair assessment based on sound science.

Second, regardless of the merits of the Arctic apple, genetic modification offers almost limitless possibilities for engineering apples that are (a) less susceptible to insects, pathogens, agricultural chemicals and other hazards, (b) can help the apple industry compete in taste, texture or other attributes with the avalanche of competing fruits, berries and other snack foods that are steadily eroding apple consumption and the entire apple business, and (c) help lower the cost of producing and handling apples that would open up huge potential markets and be a boon to healthy eating in the developing world.

Just in the United States, per capita consumption of fresh apples has fallen by an average of one percent per year for the last 20 years. In the last decade, the number of apple orchards and the acres planted to apples have been falling by about 2 percent per year. Many other apple producing countries have experienced similar declines.

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