MYTHS VS. REALITY ABOUT BIOTECHNOLOGY

Myth: California is dominated by industrial agriculture.

There is no evidence to support any claim that large, corporate farms dominate California agriculture. More than 97% of state's farms are family farms or partnerships, according to the U.S. Census of Agriculture. More than 6 % of farms are corporations, but more than 80% of those are family-owned corporations. California farms are smaller than the national average ---- 315 acres vs. 436 acres.

Myth: Foods produced through biotechnology may be hazardous to consumers.

California farmers use the most modern and progressive methods to produce high-quality, wholesome food. Family farmers utilize scientific expertise, such as UC Cooperative Extension, when making their planting decisions. Because their farm is often the same site as their home, they want to create a safe environment for their families and their neighbors.

Additionally, biotechnology has vastly improved our ability to fight diseases through medical applications in addressing patients with AIDS, genetically inherited diseases, diabetes, influenza and some forms of cancer.

While its applications in California agriculture are presently limited to mostly cotton and corn production, and applications in cheese-making, biotechnology offers the potential to bring consumers environmental benefits in many others crops by reducing the need for inputs such as crop protection tools, water and fertilizer.

Myth: Biotechnology is a new development.

Biotechnology is not a new development. For decades this practice has benefited consumers by providing advances in the medical field, improved food products and environmental enhancement. It is estimated that approximately 70% of processed foods in the marketplace today contain biotech ingredients.

Medical advances: Improved insulin production became the first commercially available biotech product in 1982 when researchers developed a reliable, inexpensive source of insulin by inserting a human gene into a bacterium. Furthermore, scientists developed "Golden Rice," a rice variety that is enriched with beta-carotene and iron that could help prevent blindness in millions of children in developing countries. Other potential applications include: edible vaccines that could be inserted into foods to fight hepatitis, garlic with more "allicin" to lower cholesterol, vitamin-enriched fruits and vegetables that reduce the risk of cancer and heart disease, and potatoes with higher solid content that soak up less fat when made into chips and fries.

Improved food products: The first biotech "food" product was chymosin, a food enzyme that curdles milk during the cheese-making process. About 75% of all cheeses are made with chymosin. Many scientists in California and around the world, are working to increase the nutritional content of foods, such as adding Omega 3 to canola and corn.

Environmental enhancement: Crops with built-in pest resistance require fewer or no pesticide applications, which means farmers save time and fuel by making fewer trips across a field. Soil and water quality is also protected.

Myth: Biotech is an unregulated and untested technology.

Food products enhanced through biotechnology are thoroughly studied before they are determined to be safe and wholesome for consumers. Three federal agencies are responsible for regulating products from biotechnology ---- EPA, USDA and FDA.

These government agencies provide unbiased, scientifically based evaluations concerning human and animal safety. Furthermore, the American Medical Association, American Dietetic Association, World Health Organization and the United Nations have studied biotech foods and feeds and have endorsed the technology.

Myth: Only biotech corporations benefit from selling biotech crops.

In 2004, over 8 million farmers in 17 countries grew biotech crops. Studies show that 90% of the farmers using this technology are "resource-poor" in developing countries. Increased incomes from higher yields in biotech crops contributed to the alleviation of poverty, as well (ISAAA, Global Status of Commercialized Biotech/GM Crops: 2004, page 3).

Environmentally-friendly biotech crops also reduce emissions and soil compaction because a farmer doesn't have to apply as many crop protection materials. This results in less passes through a field which creates a more sustainable environment.

Myth: The U.S. is losing its trade markets because biotech crops are not accepted around the world.

Many of our top foreign markets have readily embraced biotechnology. Japan, Canada, China and other trading partners approve biotech crops. Japanese markets are open even more to biotechnology. Nearly 60 biotech products have been reviewed and approved for import. Japan imports corn and canola, both of which are biotech.

In 2003, soybean and cotton exports totaled almost $4 billion to China alone. The European Union recently approved 17 seed strains of biotech corn for planting. On August 8, 2005, the EU approved another variety of feed corn for import. The EU allows for biotech crops to come into the market, but increased regulations create a longer process.

Myth: Biotech crops will eliminate organically-grown produce.

By utilizing farming techniques such as creating buffer zones and altering the planting timing of crops, both biotech and organic crops can coexist. Many farmers throughout California's bountiful San Joaquin Valley successfully grow both biotech and organic crops on the same farm. There are many benefits to growing both types of commodities.

Myth: Biotech foods are not required to be labeled.

The Food and Drug Administration requires the labeling of foods when they are nutritionally different from their conventional counterparts or they contain any known allergens. Because biotech crops are not nutritionally different and don't contain any allergens, they have not been required to be labeled. These regulations equally apply to any food products in today's market.