

California Seed Association Fact Sheet Series



Background

There is a great deal of confusion and misinformation about biotechnology, specifically transgenics, also known as genetically-engineered (GE) or genetically modified (GM) crops. The best way to stay informed is to be sure that the information is peer reviewed and from a reputable source. We will use "biotech" to describe transgenic crops.

What is biotechnology?

Any technique that uses organisms or parts thereof to make or modify products, to improve plants or animals, or to develop micro-organisms for specific purposes.

Myths about biotech crops:

- 1. Biotech crops are not tested.** Food, feed, fiber and now fuel are the most highly tested products grown today. In the U.S., the U.S. Department of Agriculture ensures that biotech crops are safe to grow and requires that they are substantially equivalent to their non-biotech counterparts for competitiveness, weediness, etc. The Food and Drug Administration ensures they are safe to eat and tests for nutrition, toxicity to humans and animals and allergenicity. The Environmental Protection Agency ensures they are not a threat to non-target organisms and the environment. Several years of research are required beyond product development to ensure that biotech crops are substantially equivalent to their non-biotech counterparts. Based on 81 studies from 400 research groups over 15 years, the European Commission and the U.S. National Research Council concluded that biotech crops are safe.
- 2. Biotech crops are products of corporations.** On a commercial scale, this is true. The only commercial biotech crop developed in a public institution is virus-resistant papaya which saved the papaya industry in Hawaii. There is actually more research on biotech in public institutions in both developed and developing countries than in private ones. Much of the research in private institutions is a product of public discoveries (<http://www.pubresreg.org>).
- 3. All crops have biotech.** In 2008, of the 308.9 million acres of biotech crops, 53% were soybean, 30% were maize, 12% were cotton, 5% were oilseed rape and less than 1% were papaya, sugar beet, sweet corn or squash. Globally, biotech crops were planted on 9.4% of the crop land (<http://www.isaaa.org>).
- 4. Only the U.S. produces biotech.** 15 developing and 10 industrial countries grew biotech crops in 2008 (<http://www.isaaa.org>).
- 5. Genes will contaminate our food.** Genes are made of DeoxyriboNucleic Acid (DNA), the biological blueprint for all living organisms. It is part of humans, animals and plants. It is in all foods derived from living organisms. Genes from bacteria, fungi, viruses, plants and animals are eaten everyday in organic, conventional or biotech foods.

More Information

UCBiotech (<http://ucbiotech.org>)

USDA (<http://www.aphis.usda.gov/biotechnology>)

Bio (<http://bio.org>)

Council for Biotechnology Information (<http://www.whybiotech.com>)

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