

## Safety Track Record and Benefits

### Safety Affirmed by the Experts

Regulatory authorities around the world have reviewed the commercial use of biotech crops according to well-established, internationally-accepted standards of risk assessment and have determined that biotech crops pose no more risk than crops produced through traditional crop breeding methods.

- The risk assessment approach has been affirmed by the United Nations [Codex](#) Commission.
- Numerous international organizations have endorsed the health and environmental safety of biotech crops, including the Royal Society (UK), National Academy of Sciences (USA), the World Health Organization (WHO), the Food and Agriculture Organization (FAO) of the United Nations, the European Commission, the French Academy of Medicine, and the American Medical Association.
- Plant biotech crops are among the most studied and reviewed food and food ingredient products in the world today.

The 2001 European Commission report on the safety of plant biotech summarizing 15 years of research by 400 scientific teams stated: "Research on GM plants and derived products so far developed and marketed, following usual risk assessment procedures, has not shown any new risks on human health or the environment... indeed, the use of more precise technology and greater regulatory scrutiny probably make them even safer than conventional plants and foods."

The [American College of Nutrition](#) "supports the use of biotechnology to develop food crops that contribute to global food security and enhance the safety and nutritional value of food."

The [American Medical Association](#) has stated their recognition of the "many potential benefits offered by genetically modified crops and foods... and encourages ongoing research developments in food biotechnology."

[25 Nobel Prize winners and more than 3,400 additional scientists](#) have expressed their support for plant biotech techniques as a "powerful and safe" way to improve agriculture and the environment.

The [International Society of Toxicology](#) says "there is no reason to suppose that the process of food production through biotechnology leads to risks of a different nature than those... created by conventional breeding."

### Solid History of Safe Use

Food and feed products containing ingredients derived from plant biotech crops will have a solid 10-year history of safe use.

- Several billion meals containing biotechnology-derived foods or ingredients have been consumed by people around the world.
- There is no reliable documentation of any food safety issues resulting from the introduction of genes, proteins or traits through the use of plant biotech.
- Experience to date supports the conclusion that the regulatory process for plant biotech products has been successful and resulted in the marketing of products that are at least as safe as conventionally bred equivalents.

### Emerging Evidence of Safety Benefits

A growing body of evidence demonstrates that plant biotech has real potential to improve food and feed safety and the safety of food production practices.

- Research data supports the conclusion that the use of insect-protected biotech crops not only decreases insecticide use\*, but also improves farm-worker safety in the developing world.
  - A recent study reported a 57 percent decrease in pesticide applications by Chinese farmers growing Bt cotton in 2000, and corresponding reductions in reported pesticide poisonings, resulting in improved human health (Hossain, 2004).
- Improved insect resistance is a useful tool in helping to reduce contamination of food with fungal toxins (mycotoxins) associated with human and animal disease.
  - Field analysis comparison trials conducted in the United States in 2001 demonstrated a 47 percent reduction in fumonisin levels with YieldGard® Corn Borer corn compared to non-Bt corn (Hammond, et al., 2002).
- Research demonstrates that the major allergenic proteins in food could be eliminated or modified through modern plant biotech, with the potential to reduce the risk of food allergy.

\* Pesticides registered by the U.S. EPA will not cause unreasonable adverse effects on man or the environment, when used in accordance with label directions.