



Myths and facts

The truth about biotech crops

Myth: Biotech crops only benefit large-scale American farmers

Fact: In its annual study, the International Service for the Acquisition of Agri-Biotech Applications (ISAAA) found that in 2008, 13.3 million farmers in a record 25 countries planted biotech crops, an increase of 1.3 million from the year before. Ninety percent of farmers growing biotech crops are small and resource-poor farmers in developing countries.

Biotech crops are delivering many farm-level benefits, making farmers more productive and profitable, as well as having significant, positive impacts on the environment. The increased income from biotech crops for small and resource-poor farmers represents an initial modest contribution towards the alleviation of their poverty. During the second decade of commercialization between 2006 and 2015, biotech crops are expected to contribute to the Millennium Development Goals (MDG) of reducing poverty by 50%.ⁱ

Myth: Biotech crops cannot coexist with conventional or organic crops

Fact: Coexistence of different crops, production systems and pest management systems in agriculture and the supply chain is not new, nor is it unique to plant biotechnology. Since the beginning of time, farmers have always had to work cooperatively with their neighbors to ensure their fields can coexist, despite different crop varieties and production systems. Different agricultural production systems have been successfully implemented in proximity to one another for many years with no impact on organic, conventional, or biotech farmers. It's a myth that biotech farmers are negatively impacting organic farmers – in fact, organic production continues to grow in areas where there are high rates of biotech adoption.

Myth: Farmers use more pesticides on their biotech crops

Fact: In growing biotech crops farmers have reduced pesticide use by more than 286 million kgs since 1996, a reduction of almost 8 percent. By comparison, this volume represents about 40 percent of the annual volume of pesticides used in the European Union.ⁱⁱ

Myth: Food derived from biotech crops has not been tested for safety

Fact: Biotech crops are among the most rigorously tested food in history. Before any biotech crop is commercialized, it undergoes rigorous government-mandated safety testing and regulatory assessment, spanning multiple years and systematic testing.

In contrast, when other new foods (crop varieties, animal breeds or microorganisms) are developed by traditional breeding methods, they are usually not subject to specific risk or safety assessment by national authorities or through international standards.ⁱⁱⁱ

Scientific and regulatory experts have repeatedly concluded that biotech-derived foods are thoroughly evaluated through comprehensive testing for food, feed and environmental safety and are as safe as their conventional counterparts.

Myth: Farmers are making less profit from biotech crops compared with their conventional counterparts

Fact: Since the first plantings of biotech crops in 1996, farmers have earned higher incomes in every country where biotech crops are grown. In 2006, farmers who planted biotech crops earned over US\$7 billion in incremental income compared with growers who planted non-biotech crops. Since 1996, global farm income from biotech crops has increased by a cumulative total of US\$33.8 billion from a higher combination of higher productivity and reduced input costs.

Farmers in developing countries have captured the majority of the extra farm income, mostly from insect-resistant cotton and herbicide-tolerant soybean.

Myth: Biotech crops offer no benefits to consumers

Fact: Any technology that is lessening the environmental impact of agriculture and increasing the productivity of food and fiber is beneficial to the consumer. And biotech crops offer these benefits. Scientists have developed nutrient-enhanced biotech crops, such as golden rice, which is enriched with beta carotene and iron that can help combat anemia and vitamin-A deficiency, a major cause of blindness in the developing world. Researchers are also working on golden mustard, which will yield cooking oil enriched with provitamin A. Mustard oil is widely used in northern India to prepare food. Work is also being done to develop biotech soybean oils with reduced trans fats. And in the future, there may be allergy-free varieties of foods such as peanuts, which may save thousands of consumers with life-threatening food allergies.

Myth: Biotechnology offers no advantages over traditional breeding methods

Fact: Farmers and plant breeders have relied for centuries on cross-breeding, hybridization and other techniques to improve the yield and quality of food and fiber crops. These techniques also provide crops with built-in protection against insect pests, disease-causing organisms and harsh environmental conditions. Unfortunately, these processes are often costly, time consuming, inefficient and subject to significant practical limitations. The tools of biotechnology allow plant breeders to select single genes that produce desired traits and move them from one plant to the other – biotechnology is simply the next step in the evolution of plant breeding tools. The process is far more precise and selective than traditional breeding in which thousands of genes of unknown function are moved into crops.

REFERENCES

- ⁱ Global Status of Commercialized Biotech/GM Crops 2008, ISAAA
- ⁱⁱ Global Impact of Biotech Crops: Socio Economic and Environmental Impacts 1996 – 2006. Brookes, Graham and Peter Barfoot. PG Economics.2008
- ⁱⁱⁱ Modern food biotechnology, human health and development: an evidence-based study. World Health Organization, 2005
- ⁱⁱⁱⁱ Global Impact of Biotech Crops: Socio Economic and Environmental Impacts 1996 – 2006. Brookes, Graham and Peter Barfoot. PG Economics, 2008

About CropLife Asia:

CropLife Asia promotes the benefits and responsible use of crop protection and plant biotechnology products, as well as sound regulatory frameworks in support of sustainable agriculture in the Asia Pacific region. As a regional unit of CropLife International – a global federation of the plant science industry in 91 countries – CropLife Asia supports the work of 15 member associations and is led by member companies at the forefront of crop production research and development.

www.croplifeasia.org

This publication is produced by CropLife Asia (S97SS0018F). Copyright of the materials contained in this publication belongs to CropLife Asia. Nothing therein shall be reproduced in whole or in part without prior written consent of CropLife Asia. Views expressed are not necessarily those of CropLife Asia and no liabilities shall be attached thereto.

© 2009 CropLife Asia. All rights reserved.

Printed on recycled paper 