



**Testimony of the Biotechnology Industry Organization
Submitted to the
Senate Joint WLA/EIA Committees**

February 10, 2005

***Regarding Hawaii Senate Bill 1036:
Provides for strict liability for biotech plant products***

On behalf of the Biotechnology Industry Organization and its more than 1,000 member companies, please accept this testimony in opposition to Senate Bill 1036. The bill “provides for strict liability for injuries caused by genetically engineered products from plant sources.” These agricultural products on the market have proven to be effective for farmers, highly regulated and as safe as conventional and organic products, and pose no unique threat. As you deliberate this proposed legislation, we hope you will consider these facts.

Adoption and Benefits

The widespread adoption of six biotechnology-derived crops has increased farmer income, boosted yields, reduced pesticide use and spurred greater use of environmentally friendly no-till agriculture, according to a study by the National Center for Food and Agricultural Policy.

Eighty-five percent of all soybeans grown in the U.S. are improved through biotechnology. So is 76% of the cotton, and 45% of the corn grown in this country. These plants are safe to grow and safe to eat. The technology is effective and farmers use it.

Compared with conventional crops, the study suggested that the six biotechnology-derived crops — canola, corn, cotton, papaya, soybean and squash — increased grower incomes by an additional \$1.9 billion, boosted crop yields by 5.3 billion pounds and reduced pesticide use by 46.4 million pounds in 2003. The growers who received the greatest economic gains from biotechnology-derived crops in 2003 were in the principal corn- and soybean-growing states of the Upper Midwest: Iowa, Illinois and Minnesota. But there were economic benefits in all 42 states where the six biotechnology-derived crops (11 different varieties) were grown.

The U.S. is not alone in developing products of agricultural biotechnology. In 2004, global plantings of crops improved through biotechnology increased to 200 million acres, a 20% increase over 2003 and the sixth consecutive year of growth at a sustained rate of over 10%. Biotechnology-derived plants are grown in 16 countries by 6 million farmers.

According to the International Service for the Acquisition of Agri-biotech Applications (ISAAA), biotechnology-derived crops have delivered significant agronomic, environmental and social benefits to small and large farmers and to society, and contributed to a more sustainable agriculture. These crops have lead to increased productivity gains in both the developed countries like the U.S. and Canada, and in countries like China, Brazil and Argentina. These productivity gains help maintain the world's arable land base, and prevent new lands being lost to agricultural expansion. Biotechnology-derived crops have contributed to a substantial reduction in pesticide volumes used in production agriculture and have provided economic and social benefits to growers in both developed and developing countries by reducing time and production costs, and increasing yields.

Safety

Biotechnology-derived crops are among the most extensively tested, well-characterized, and closely regulated food, feed and fiber crops ever developed. The U.S. regulatory process, in effect since 1986, is designed to

ensure that these crops are as safe to grow as conventional crops and as wholesome, nutritious and safe to eat as conventional or organic crops. For crops on the market today, that finding has been made by scientific and regulatory authorities in the U.S. and throughout the world. In that regard, it is worth noting that no comparable review is made for new varieties of conventional or organic crops that may have similar characteristics, even those produced through wide crosses.

In the U.S., all commercial crops improved through biotechnology have been thoroughly assessed for human and animal health and environmental safety according to well-established, internationally accepted, scientific standards and guidelines by the U.S. Department of Agriculture (USDA), the U.S. Food and Drug Administration (FDA) and, where the plant produces a pesticidal substance, the U.S. Environmental Protection Agency (EPA).

Notwithstanding nearly two decades of extensive governmental, academic and industry oversight, not a single instance of actual harm to health, safety or the environment has ever been confirmed for any biotechnology-derived crop placed on the market.

Cross-pollination and Organic Crops

Genetic improvements made through molecular biology do not change the basic pollination characteristics of the crop and the issue of cross-pollination is not a new or different issue for growers, nor is it unique to biotechnology-derived plants. Growers of specialty crops have developed “identity-preservation” processes to manage cross-pollination from neighboring crops. These types of crops include popcorn, blue corn, sweet corn, canola, and soybeans for tofu, as well as organic crops and crops sold to the European “non-GMO” market.

Growers of “specialty” crops typically receive a premium for their goods in the marketplace. These growers assume the responsibility of meeting specific criteria, they put processes in place to meet these criteria, and they are rewarded with a premium price. Biotechnology-derived commodity

crops (such as corn, cotton or soybeans) are not specialty crops, and growers of these crops do not receive a premium for them. The U.S. government considers these crops identical to other types of commodity crops, and the market independently values them that way.

An organic farmer, or any farmer, who signs a contract guaranteeing “0% GMO” assumes the responsibility for ensuring that level, just as that farmer bears the responsibility for meeting any other contractual obligation, such as crop quality, size or color.

Farmers recognize that biological systems are inherently imperfect — there is no such thing as “100% pure” in nature. Biological systems are dynamic, not static. The movement and dissemination of pollen and seeds is natural and inevitable, and sexually compatible crops have exchanged genes for centuries. It should also be recognized that, as analytical techniques continue to improve in sensitivity, if we look hard enough, long enough and often enough, we are likely to find imperfections, impurities and contaminants just about everywhere.

Historically, the presence of unintended impurities (“adventitious presence”) in food, feed and seed has been recognized and accepted in laws, regulations and standards that establish allowances for these impurities or otherwise ensure that their presence is safe. Examples of such allowances include:

- “Corn” must consist of at least 50% corn and no more than 10% of other grains (USDA)
- “No. 1 Grade Corn” may include up to 2% broken corn and “foreign materials” (USDA)
- Seed of a particular hybrid may contain up to 5% of a different hybrid without identification (USDA)

- “Organic” products may include up to 5% of listed synthetic substances (including pesticides) and up to 5% of the EPA allowable levels for prohibited pesticides (USDA Organic Rule)
- “Sugar Free” foods may contain up to 0.5 gram of sugar per serving (FDA)
- “Nonfat Yogurt” may contain up to 0.5% milk fat (FDA)
- “Decaffeinated” coffee may contain up to 3% caffeine (FDA)

In full recognition of the realities of how crops are grown, the National Organic Program was established in 2000 as a process-based standard, it is not a guarantee of a pure product. This policy has been the case for decades, well before Congress told USDA to get involved, and was adopted as part of the National Organic Program at the urging of the organic industry. The organic label guarantees that an approved process was used to grow the crops — it is not a claim or guarantee of product superiority or even "GMO free."

USDA recently confirmed the policy, as originally stated in the preamble to the Organic Rule that, as long as an organic operation follows production standards and practices that meet the applicable USDA requirements, the unintentional presence of a product of an excluded method, such as biotechnology, does not affect the certification of the operation or the crop under the National Organic Program. USDA has made it clear that it is up to the organic producer and the organic certifier to ensure a proper buffer zone is in place to protect the integrity of an organic crop. Furthermore, if an approved buffer zone is later found to be inadequate, the certifying agent must not punish the producer retroactively by an enforcement action or “de-certify” the organic crop; rather, the buffer zone should be reevaluated for future crops.

Importantly, USDA is not aware of any instance in which certification has been lost due to adventitious presence of biotechnology-derived material. Moreover, in the agency’s view, the unintended presence of such material

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does not affect the status of the certified operation and does *not* necessarily result in loss of organic status for the organic product, provided it was produced in adherence with all of the organic requirements under the Organic Rule.

USDA has made it clear that GM, GE, and GMO-free claims are not part of the National Organic Standards, and "organic" is not synonymous with "GM-free." Further, in the department's view, the National Organic Program is voluntary and confers no rights on organic producers to control the activities of non-organic producers.

Conclusion

For the numerous reasons stated, we feel there is no basis in science or law to support establishment of a separate liability regime for biotechnology-derived crops. It would prove a disservice for Hawaii and for the future of the biosciences in the state. We encourage the Committee to oppose this legislation.

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The Biotechnology Industry Organization (BIO) is the national trade organization, based in Washington, DC, representing more than 1,000 biotechnology companies, academic institutions and biotechnology centers in all 50 states and 33 countries. BIO members are involved in the research and development of health care, agricultural and environmental biotechnology products

