
A BILL FOR AN ACT

RELATING TO GENETICALLY MODIFIED CROPS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that during the past
2 decade, Hawaii has hosted more than three dozen field tests of
3 crops genetically engineered to produce pharmaceuticals and
4 industrial proteins. These field tests have been conducted in
5 the open air in many locations on most of the main Hawaiian
6 islands. The nature of the crops being grown has not been
7 identified to the public, nor has the public been informed of
8 the locations where the crops have been grown. Neither the
9 federal government nor the growers have been willing to make
10 this information available.

11 These experimental crops use food and feed crops, including
12 corn, rice, soybeans, and sugar cane to produce a variety of
13 pharmaceutical proteins and industrial enzymes, including
14 hormones, AIDS, hepatitis, and swine diarrhea vaccines,
15 monoclonal antibodies, aprotinin, trypsin, human granulocyte
16 macrophage stimulating factor, as well as plastics and
17 diagnostic compounds.

18 These crops are visually indistinguishable from



1 conventional varieties, but are not intended for consumption.
2 No tolerances, that is, maximum safe exposure levels, have been
3 established for any of the proteins being produced; no human
4 exposure is legally allowable.

5 Concerns about the risk of such tests contaminating the
6 food supply and environment have been expressed by a broad
7 spectrum of interests, including Consumers' Union, the National
8 Food Processors Association, Grocery Manufacturers of America,
9 the Union of Concerned Scientists, the National Academy of
10 Sciences, and individual scientists of national reputation.

11 Noted scientists have expressed their concern that exposure
12 to even minute quantities of many of these proteins can cause
13 serious health problems in humans and animals. For example, it
14 has been reported that if workers harvesting or processing the
15 AIDS vaccine-producing corn inhaled the corn pollen or dust,
16 their immune systems might become unresponsive to AIDS
17 infections, with potentially lethal consequences. It has been
18 reported that exposure to monoclonal antibodies may cause
19 autoimmune disorders, and exposure to proinsulin may cause Type
20 1 diabetes.

21 In December 2005, the Inspector General of the United
22 States Department of Agriculture issued an audit of the agency's



1 oversight of field testing of genetically engineered crops by
2 its Animal and Plant Health Inspection Service and concluded,
3 among other things, that "APHIS lacks clear, comprehensive
4 requirements and effective internal controls to minimize the
5 risk of inadvertent release of [genetically engineered
6 organisms] into the environment", that "[e]ven if APHIS improves
7 its inspection process, we found that APHIS has not updated its
8 regulations to reflect the Plant Protection Act of 2000, under
9 which APHIS carries out its biotechnology oversight duties", and
10 that "APHIS lacks basic information about the field test sites
11 it approves and is responsible for monitoring, including where
12 and how the crops are being grown, and what becomes of them at
13 the end of the field test." During the investigation, the
14 Inspector General found that two large harvests of
15 pharmaceutical crops had remained in storage at the field test
16 sites for over a year without APHIS' knowledge or approval of
17 the storage facility.

18 On several occasions, contamination of conventional crops
19 by pharmaceutical crops has occurred accidentally. In addition,
20 contamination of conventional crops by nonpharmaceutical,
21 genetically engineered crops has been widespread, including the
22 recently-announced contamination of the United States long grain



1 rice supply by an experimental, unapproved genetically
2 engineered variety, resulting in substantial economic harm to
3 rice growers.

4 In September 2006, the federal district court for the
5 district of Hawaii ruled that the Animal and Plant Health
6 Inspection Service, by issuing field test permits for
7 pharmaceutical crops without assessing environmental impacts,
8 had consistently acted in "utter disregard" of the Endangered
9 Species Act and that its practice "constitutes an unequivocal
10 violation of a clear congressional mandate".

11 The legislature finds that Hawaii, with its dense
12 populations, proximity of agricultural areas to population
13 centers and natural areas, and the presence of hundreds of
14 threatened and endangered species, many found nowhere else on
15 earth, is not an appropriate location for open air field tests
16 of experimental crops that may cause harm, and that cannot be
17 recalled once they have been released into the environment,
18 whether by wind, rain, pollen dispersal, rodents, insects, pigs,
19 terrorism, or human error.

20 The purpose of this Act is to ensure that the food supply,
21 the health of Hawaii's residents and visitors, the health of its
22 unique and sensitive ecosystems, and its economy are protected



1 from accidental exposure to these crops.

2 SECTION 2. Title 11, Hawaii Revised Statutes, is amended
3 by adding a new chapter to be appropriately designated and to
4 read as follows:

5 "CHAPTER

6 GENETICALLY MODIFIED CROPS

7 § -1 Biopharmaceutical crops; prohibition; penalties.

8 (a) No biopharmaceutical crops using food crops shall be
9 tested, propagated, cultivated, raised, grown, or used in
10 research in the State.

11 (b) No biopharmaceutical crops using nonfood crops shall
12 be tested, propagated, cultivated, raised, grown, or used in
13 research in the State except in indoor laboratories employing
14 adequate biosafety protocols designed to prevent release into
15 the environment.

16 (c) A person that tests, propagates, cultivates, raises,
17 or grows biopharmaceutical crops, or conducts laboratory work on
18 biopharmaceutical crops, shall be civilly liable for damage that
19 may result from this activity. Damage shall include, but not be
20 limited to, adverse effects on other crops, on the health of
21 individuals exposed to the biopharmaceutical crops, on the
22 market for other crops, and on the environment.



1 (d) The department of agriculture shall adopt rules in
2 accordance with chapter 91 to enforce this chapter.

3 (e) For purposes of this section:

4 "Biopharmaceutical crops" means genetically modified crops
5 designed to produce biological or drug products, including
6 intermediates, protein drugs, medical devices, new animal drugs,
7 and veterinary biologics.

8 "Food crop" means any crop, any part of which is normally
9 consumed or ingested by humans or animals and includes but is
10 not limited to corn, soybeans, rice, wheat, barley, and sugar
11 cane.

12 "Genetically modified" means alterations to a life form or
13 its living progeny at the nucleic acid level, using the
14 techniques collectively referred to as recombinant DNA
15 technology.

16 "Person" means an individual, corporation, partnership,
17 limited liability company, or any other legal entity.

18 "Recombinant DNA technology" means the transfer of genes,
19 regulatory sequences, or nucleic acid between hosts by the use
20 of vectors or laboratory manipulations and includes the
21 insertion, excision, duplication, inactivation, or relocation of
22 specific genes, regulatory sequences, or sections of nucleic



1 acid. This term does not apply to material or an organism
2 developed exclusively through traditional methods of breeding,
3 hybridization, or nondirected mutagenesis."

4 SECTION 2. This Act shall take effect upon its approval.



Report Title:

Biopharmaceutical Crops; Prohibitions

Description:

Prohibits the growing of crops that produce pharmaceuticals.
Prohibits laboratory work relating to biopharmaceutical crops.
Defines "biopharmaceutical crops", "food crop", "genetically modified", "person", and "recombinant DNA technology".

