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### Costa Rica

## **Agricultural Biotechnology Annual**

## **Annual Biotechnology Report**

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#### **Report Highlights:**

Agricultural biotechnology continues to face challenges in Costa Rica. Two political parties are supporting a bill in the Legislative Assembly intended to declare a 15 year moratorium on the "liberation and cultivation of modified living organisms for any purpose." Also, groups opposed to agricultural biotechnology have been vocal in their opposition to biotechnology and sued the Government in 2013 over the procedure followed to approve biotech events. However, a decision from the Constitutional Court at the end of 2014 generally supported the way biotech products are reviewed and approved.

# Section I. Executive Summary: SECTION I. EXECUTIVE SUMMARY

Transgenic seed varieties have been grown in Costa Rica since 1992, with all seeds being exported to the country of origin. Costa Rica has implemented legislation to regulate the import and cultivation of

biotech crops. This legislation includes a labeling requirement for genetically engineered (GE) agricultural products, but there is currently no requirement that foods containing the products of biotechnology be labeled.

Beginning in 2004, environmental groups strengthened their campaign against the planting of transgenic varieties in Costa Rica. That year, a coalition of these groups submitted a petition to impose a moratorium on the planting of transgenic varieties in Costa Rica, citing the precautionary principle with respect to both the environmental impact and the human health impact of biotechnology. Also in that year, a Presidential decree was published modifying the composition of the National Technical Biosafety Commission (NTBC), which reviews all requests for approval of new biotech varieties for planting or propagation. The NTBC now has two members from environmental groups and an additional member from the Environment Ministry. The composition of the NTBC has undergone changes with political appointees heading leadership positions.

At the beginning of 2013, in response to a request by a U.S. company for approval to plant a new variety of biotech corn (production would be for propagation and re-export of the seeds, not for commercial production), groups opposed to biotechnology became very active again. This resulted in widespread press coverage of biotechnology and of this particular issue, with discussions that lasted several weeks in the leading newspapers. Although the NTBC eventually approved the request to plant the new corn variety, the groups opposed to biotechnology raised the issue to the Constitutional Court (Sala Cuarta). Two cases were presented before the court; one case was filed by the Environmentalist groups. The court ruled against two points presented by the Environmentalists and in favor of one point. Although the court issued the ruling in September of 2014, it issued the full document which includes the reasoning for the ruling at the end of June, 2015. The second case was presented by the "Defensoría" de los Habitantes," an "Ombudsman" institution in Costa Rica. The second case was recently solved with results generally favorable to biotechnology, since it was similar to the first case in some aspects. When the second case was presented, the Sala Cuarta accepted it for review and suspended the "final administrative act" of the NTBC. For practical purposes the court prevented the Commission from issuing new product registrations until the case was solved. The NTBC could review requests for registration and could continue to operate, but it could not issue approvals until the case was solved. It appears that the ruling solved this issue, but it is not completely clear at this time when will the NTBC resume its normal operations. These actions were perceived as a major setback by the different companies involved in biotechnology activities in the country. An additional issue of concern, although with unclear legal results up to this point, is the decision of a large number of municipalities or local governments (74 out of a total of 81) to declare themselves "free of transgenics."

Another issue is that two political parties, the Citizen's Action Party and the Frente Amplio (a left wing party), supported a bill called "Law of National Moratorium to the Liberation and Cultivation of Living Modified Organisms (transgenics)" (file number 18957). The Minister of Agriculture showed strong support for the bill during the bill's review by the Agricultural Issues Committee of the Legislative Assembly. The bill was defeated in the Committee and did not reach the Plenary of the Assembly. However, an even more restrictive bill called "Law for the Restriction of the Release into the Environment of Genetically Modified Organisms" (file number 19477), has been promoted and supported by the Executive and is undergoing discussion in the Environmental Issues Committee. This bill, if approved, would result in a 15 year moratorium.

Costa Rica signed the Cartagena Protocol on Biosafety in May 2000. However, the Protocol was not ratified by the Legislative Assembly until July 17, 2006. It was published in the Official Diary, "La Gaceta," on November 27, 2006, thus becoming law. Costa Rica has been working on the national regulatory framework necessary for the implementation of the Protocol. The Ministry of Agriculture (MAG) has taken steps to reach agreements with importers and grain users in order to comply with the protocol.

#### **CHAPTER 1: PLANT BIOTECHNOLOGY**

#### PART A: PRODUCTION AND TRADE

- a) PRODUCT DEVELOPMENT: Costa Rican researchers are working on the development of bananas (resistance to black Sigatoka), and, pineapples (higher content of antioxidants). The development of these products is at the field trial stage. According to sources familiar with the research, none of these projects are expected to be commercialized in the next year.
- b) COMMERCIAL PRODUCTION: Costa Rica produces GE cotton and soybean seed entirely for export to the country of origin. The seeds do not stay in the country for local consumption. Costa Rica has not updated its Biosafety Clearinghouse data since 2012. However, an estimated 300 ha. are planted in biotechnology plants in 2015. The majority of this area is planted in cotton for propagation of planting seeds for export to the United States. Area planted to biotechnology crops peaked at 1,697 ha. in 2009.

The events approved for seed production are Roundup Ready, Roundup Ready Flex, Bollgard, Bollgard II, WideStrike, Cry 1F, Bomoxinil, Liberty Link, Vip 3A and some combinations of the previous ones, for cotton. For soybeans, only Roundup Ready is planted. The GOCR has not received any requests to date for approval to plant transgenic varieties for human or animal food consumption in Costa Rica. According to the companies involved in this business, the procedures to obtain permission from the Costa Rican government to plant genetically modified varieties are straightforward and did not represent an obstacle to production in the past. However, as mentioned before, the process to register new products was halted in 2013 and new legal issues could prevent future developments in this sector. Companies involved in this business increase or reduce their area planted based on the expected demand for their products in the United States. A list of approved events can be found here: http://cr.biosafetyclearinghouse.net/decisions.shtml

- c) EXPORTS: As indicated above, the only exports of GE products are seeds that are propagated in the country for the specific purpose of exporting them back to the companies that supplied the seed.
- d) IMPORTS: Costa Rica imports GE corn and soybeans from the United States for animal feed production, and a small volume of cotton for processing. Imports of GE organisms are limited to those indicated above from the United States.
- e) FOOD AID RECIPIENT CONTRIES: The country is not a recipient of food aid and is not likely to become a food aid recipient in the near future.

#### **PART B: POLICY**

a) REGULATORY FRAMEWORK: In 1990, Costa Rica created the National Technical Biosafety Commission (NTBC), which is attached to the Ministry of Agriculture by law (Animal and Plant Health Protection Law 7664 of April 1997,

http://www.sfe.go.cr/quienes\_somos/normativa/leyes%20y%20decretos/Ley\_7664.pdf ). The law confers upon the NTBC power to regulate imports, exports, research, testing, movement, propagation, industrial production, marketing and use of transgenic and other genetically modified organisms for agricultural use.

The Commission had operated as a strictly technical body for years, however on October 4, 2004, under pressure from groups opposed to biotechnology, then President Abel Pacheco modified its composition resulting in the following membership: one representative of the Science and Technology Ministry, two representatives from the Ministry of Agriculture, two representatives from the Ministry of the Environment, one representative from the National Seeds Office, two representatives from the National Academy of Sciences, one representative from the Federation for Environmental Conservation, and one representative from the Biodiversity Conservation Network.

The country has specific legislation in place for the approval of plant biotechnology events for cultivation, import, and export. However, at this time there is no specific legislation requiring approval of products of biotechnology for food consumption, feed or processing. Imports of U.S. grains and soybeans for animal feed production enter Costa Rica under procedures identical to the importation of any other agricultural product.

- b) APPROVALS: Requests to obtain approval to plant a biotechnology crop (to be grown commercially, as a field trial, or to be grown for export purposes only) are evaluated by the NTBC. A list of approved events can be found here: http://cr.biosafetyclearinghouse.net/decisions.shtml
- c) FIELD TESTING: The country allows field tests of biotechnology crops, following appropriate risk analysis for each particular case. At this time field testing underway is limited to a few hectares of pineapples, bananas, and rice.
- d) STACKED EVENT APPROVALS: Cases that present stacked events (plants that combine two, or more already approved traits, such as herbicide and insect tolerance) need to undergo the same risk evaluation process as the individual events.
- e) ADDITIONAL REQUIREMENTS: There are no additional requirements beyond approval by the NTBC for plant biotechnology events.
- f) COEXISTENCE: Regarding the coexistence of biotechnology and non-biotechnology crops (including organic agriculture), Executive Decree 29782 MAG of September 18, 2000 (Organic Production Regulation), indicates in Chapter III, Article 24: "Genetically Modified Organisms or those obtained through genetic engineering and the products derived from such organisms, are not compatible with the principles of organic production (understood as production, processing, manufacture or marketing), and their use in organic agriculture is not allowed." The link to the decree is the following:

#### http://www.sfe.go.cr/quienes\_somos/normativa/leyes%20y%20decretos/Decreto\_29782.pdf

Costa Rica has legislation in effect to promote the production of Organic Products. Article 24 of the legislation indicates the following: "any person who plants transgenic products, will have to obtain permission from the Ministry of Agriculture, without which, the person will not be allowed to initiate the activity. The permit will be granted as long as there is a previous study proving that there are no organic products within a reasonable distance, which may be affected by wind or proximity. The procedure to grant the permit will include consultations by the authorities with the organic producer organizations present in the area."

g) LABELING: There is no law regarding the use of labels such as "biotech free," "non-biotech," "gmo-free" or "non-gmo" right now. Anti-biotech as well as consumer protection groups are pushing for mandatory labeling of food products derived from modern biotechnology. At this time labeling is required to introduce and/or trade plant products or other genetically modified organisms (GMOs) for use in agriculture in Costa Rica. In this case the product must be identified as such on a label where the consumer can identify its characteristics. To date, this requirement has been applied only to labeling of planting seeds.

Environmentalists are calling for legislation to ban the import of transgenic grains, and to establish a labeling system for transgenic foods. During 2014, Costa Rica imported \$210 million from the United States in biotech commodities, based on the value of corn and soybean imports. Processed food imports, many of which contain ingredients derived from biotech commodities, are growing.

- h) TRADE BARRIERS: There are no biotechnology trade barriers that affect U.S. exports at this time. Costa Rica is an importer of soybeans and corn (primarily yellow corn for animal feed production). Imports of processed products that may contain products of biotechnology are also an important segment of total agricultural products imported from the United States.
- i) INTELLECTUAL PROPERTY RIGHTS (IPR): Although the country currently does not plant GE crops commercially, there is legislation in effect that would protect intellectual property rights for such products.
- j) CARTAGENA PROTOCOL RATIFICATION: Costa Rica signed the Cartagena Protocol on Biosafety in May 2000. The Protocol was ratified by the Legislative Assembly until July 17, 2006. It was published in the Official Diary, "La Gaceta" on November 27, 2006, thus becoming law. Costa Rica has been working on the national regulatory framework necessary for the implementation of the Protocol. The Ministry of Agriculture (MAG) has taken steps to reach agreements with importers and grain users in order to comply with the protocol. As part of this process, the Ministry of Agriculture approached Post in the past to request a list of all agricultural biotechnology events approved by the United States.
- k) INTERNATIONAL TREATIES/FORA: In general, Costa Rica has been an active participant in International Fora, the Codex Alimentarius in particular. In different occasions Costa Rica has shared or supported the U.S. position on different issues related to biotechnology. Also, Costa Rica has been participating in the meetings of the parties to the Cartagena Protocol after the country ratified the Protocol.

- 1) RELATED ISSUES: Not applicable.
- m) MONITORING AND TESTING: The country does not have a monitoring program for GE products and does not actively test for GE products.
- n) LOW LEVEL PRESENCE POLICY: Costa Rica does not have a Low Level Presence policy at this time.

#### PART C: MARKETING

- a) MARKET ACCEPTANCE: Costa Rica is an importer of corn and soybeans from the United States. There seems to be very little if any concern regarding the process from which these products are derived, among users (primarily animal feed producers) or among consumers in the country. The majority of the population is not aware that almost all the yellow corn and soybeans imported into the country for animal feed production is derived from biotechnology. However, as will be explained below, groups opposed to biotechnology are trying to build a negative perception of biotechnology products among the public, mostly through fear and misinformation.
- b) PUBLIC/PRIVATE OPINIONS: The anti-biotech campaign, developed by different groups under the Federation for Environmental Conservation and the Biodiversity Conservation Network, did not have a significant negative impact among consumers in the past. However, because of the lack of scientific education of the general public and the widespread use of misinformation by groups opposed to biotechnology, the perception and attitudes toward transgenics may be changing amongst the general population. The general public has limited knowledge of the topic and can be easily manipulated by these groups, especially in rural areas, where the educational level of the population is lower. On the brighter side, these group's statements and actions have given scientists, MAG officials, and the press, the opportunity to express points of view favorable to biotechnology.

Post has noticed different activities organized by environmental groups in support of the moratorium bill. For instance, in March of this year, an organization hosted two anti-biotechnology events. Also, as part of the efforts to support the moratorium bill, the Left wing party "Frente Amplio" organized an event in June at the Legislative Assembly.

c) MARKETING STUDIES: Not applicable.

#### PART D: CAPACITY BUILDING AND OUTREACH

a) ACTIVITIES: Outreach to Costa Rican officials, scientists and other stakeholders has been ongoing since 2005 through various programs and initiatives.

In 2010, a Costa Rican official from the Ministry of Agriculture participated in biotechnology training under the Cochran Fellowship Program. Also, in 2011, two Costa Ricans (one from the University of Costa Rica and one from the Center for Biotechnology Research) participated in the Michigan State University Biotechnology Short Course funded by USDA's Cochran Program. In 2012, one scientist

from the Center for Biotechnology Research attended the Molecular Plant Breeding Course at Michigan State University. Two Costa Ricans (one government official and one academician) attended the Michigan State University Biotechnology Short Course funded by USDA's Cochran Program in 2014 and one government official is expected to attend the Michigan State University Biotechnology Course this year.

Post obtained funding approval to conduct a regional biotechnology activity in 2014 for training of decision makers from Central America and the Dominican Republic. This was a course developed by the University of Missouri – Columbia Economics and Management of Agrobiotechnology Center (EMAC). The training addressed a range of topics, from risk assessment, risk management and risk communication to the role of modern biotechnology in agriculture and national and international biotech regulations and agreements. The purpose of the training was to provide local decision makers with scientific background and science based information on biotechnology to help them in the process of drafting and enforcing sound regulations. A follow up activity will be held in Costa Rica in August of this year.

b) STRATEGIES AND NEEDS: Post has been actively involved in providing training and capacity building to government officials through the Cochran Program and other resources. The needs of Costa Rica, and the region, range from lack of training in risk communication to lack of knowledge, institutional experience and capacity to develop biotechnology and bio-safety legislation and to implement that legislation. Institutions are lacking in terms of ability to do risk assessments. Decision makers may have some understanding of biotechnology and how national and international legislation works, but are not focused on this area, nor have the time or money to invest in further education.

#### **CHAPTER 2: ANIMAL BIOTECHNOLOGY**

#### PART E: PRODUCTION AND TRADE

- a) BIOTECHNOLOGY PRODUCT DEVELOPMENT: There are no GE animals or clones of animals under development in the country at this time.
- b) COMMERCIAL PRODUCTION: Costa Rica does not commercially produce any livestock clones or GE animals or products derived from animal biotechnologies.
- c) BIOTECHNOLOGY EXPORTS: The country does not export any GE animals, livestock clones, or products from these animals at this time.
- d) BIOTECHNOLOGY IMPORTS: Costa Rica has not imported GE animals or livestock clones or products from these animals.

#### **PART F: POLICY**

a) REGULATION: Law #8495 (General Law of the National Animal Health Service) provides SENASA with the legal authority to regulate animal biotechnology in Costa Rica. The following is the

link to the text of the law: http://www.senasa.go.cr/senasa/sitio/index.php/paginas/view/191 SENASA also regulates issues related to food safety for animals and animal products, and animal welfare. Environmental safety issues are regulated by the Ministry of the Environment (MINAET). The field of animal biotechnology regulation is not as developed as plant biotechnology. The Ministry of Agriculture has yet to develop specific regulations for animal biotechnology, even though the General Law makes SENASA responsible for regulating this specific area of biotechnology.

- b) LABELING AND TRACEABILITY: Labeling regulations have not been developed for products of animal biotechnology. The country has traceability regulations in place for live animals, which would apply to GE animals in the eventual case of introduction into the country.
- c) TRADE BARRIERS: There are no trade barriers at this time that would affect U.S. exports.
- d) INTELECTUAL PROPERTY RIGHTS (IPR): There is legislation in effect that would protect intellectual property rights for such products.
- e) INTERNATIONAL TREATIES/FORA: In addition to Codex Alimentarius, Costa Rica participates in the World Organization for Animal Health (OIE), although Post is not aware of specific interventions by Costa Rican officials on the subject of animal biotechnology.

#### PART G: MARKETING

- a) MARKET ACCEPTANCE: The information provided above on the subject of acceptance of plant biotechnology generally applies to animal biotechnology. However, the issue of plant biotechnology has not received much attention over the last few years in the local press. Post would expect the issue to be controversial if and when it becomes a public discussion topic.
- b) PUBLIC/PRIVATE OPINIONS: Please see the section on plant biotechnology.
- c) MARKET STUDIES: Not applicable.

#### PART H: CAPACITY BUILDING AND OUTREACH

- a) ACTIVITIES: No activities have been developed by Post over the last two years specifically on animal biotechnology.
- b) STRATEGIES AND NEEDS: Please see plant biotechnology section on this subject.