Costa Rica

Agricultural Biotechnology Annual

Biotechnology and other new production technologies report

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Report Highlights:
Seeds derived from modern biotechnology have been grown in Costa Rica for multiplication purposes since 1992, with all seeds being exported to the country of origin. Groups opposed to agricultural biotechnology sued the Government in 2013 over the procedure followed to approve biotech events. A decision from the Constitutional Court is still pending on this issue. Two political parties are supporting a bill in the Legislative Assembly intended to declare a moratorium on the “liberation and cultivation of modified living organisms”.

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 agricultural products genetically engineered (GE), 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 on that year, a Presidential decree was published modifying the composition of the Commission on Biosafety, which reviews all requests for approval of new biotech varieties for planting or propagation. The Commission now has two members from environmental groups and an additional member from the Environment Ministry.

At the beginning of 2013, in response to a request by Monsanto 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 Biosafety Commission eventually approved Monsanto’s request to plant the new corn variety, the groups opposed to biotechnology raised the issue to the Constitutional Court (Sala Cuarta). The Sala Cuarta has not ruled on this case, but in the meantime it suspended the Biosafety Commission’s decision until a ruling is made on the issue. Given that the Sala Cuarta has no time limit to rule on this case, these actions are perceived as a major setback by the different companies involved in biotechnology activities in the country. In July, the Procuraduría General de la Republica (PGR), which acts as the Government’s advisor on legal issues, issued a report addressing the unconstitutionality action presented by the groups opposed to biotechnology. The PGR’s report indicated that transgenic organisms cannot be liberated into the environment without first conducting an environmental impact study. This PGR report is not legally binding, although it could be used by the Sala Cuarta to support a later ruling. Groups opposed to biotechnology have characterized the PGR’s report as very important support for their case. Environmental impact studies can take years to be conducted in Costa Rica. 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 (59 out of a total of 81) to declare themselves “free of transgenics”.

To complicate matters even more, two political parties, the Citizen’s Action Party (the party of the new administration) and the Frente Amplio (a left wing party), are supporting a bill called “Law of National Moratorium to the Liberation and Cultivation of Living Modified Organisms (transgenics)”. The bill is under review by the Agricultural Issues Committee of the Legislative Assembly under file number 18957. This Committee has requested an evaluation of the bill from several entities, including the Ministry of Agriculture. Post has learned that the Minister of Agriculture supports this bill with minor modifications. For instance, the main point of the bill, article one, says: “Declare a national moratorium on the liberation and cultivation of living modified organisms. The moratorium will be suspended until there is certainty and scientific consensus on the diverse risks that living modified organisms imply. The moratorium will be in effect on Costa Rica’s entire territory.” The Ministry of Agriculture proposes to modify this language to indicate the following: “Declare a national moratorium on the cultivation of living modified organisms. The moratorium will be suspended until there is certainty and scientific consensus on the diverse risks that living modified organisms imply, but not exceeding three years from the time the law enters into effect. The moratorium will be in effect on Costa Rica’s entire territory.”

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. As part of this process, the Ministry of Agriculture requested a list from Post of all agricultural biotechnology events approved by the United States. Up to this point, there have been no changes to the regulations for importation of grains from the United States.

**CHAPTER 1: PLANT BIOTECHNOLOGY**

**PART A: PRODUCTION AND TRADE**

**a) PRODUCT DEVELOPMENT:** Costa Rican researchers are working on the development of GE rice (resistance to virus and herbicides), bananas (resistance to black Sigatoka), and, more recently, 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. According to preliminary data from the Biotechnology Department of the Ministry of Agriculture, there were approximately 300 ha. planted in biotechnology plants in 2013. The majority of this area was 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 do not represent an obstacle to production. However, as mentioned before, 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](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 COUNTRIES:** 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](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](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](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. Given the support against biotechnology from some political groups as mentioned in the Executive Summary, labeling legislation is more likely to be pushed through the Assembly in the near term. 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. Costa Rica imports in excess of $300 million in biotech
commodities per year. 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 17th, 2006. It was published in the Official Diary, “La Gaceta” on November 27th, 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 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.

l) RELATED ISSUES: Not applicable.

m) MONITORING AND TESTING: The country does not have 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.

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 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) will attend the Michigan State University Biotechnology Short Course funded by USDA’s Cochran Program this year.

b) STRATEGIES AND NEEDS: 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 weak 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. Post obtained approval of EMP funds to conduct a regional biotechnology activity in 2014 for training of decision makers from Central America and the Dominican Republic. This will be a course developed by the University of Missouri – Columbia Economics and Management of Agrobiotechnology Center (EMAC). The training will address 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 is 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.

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. The training proposed by Post would ideally cover issues of animal biotechnology, as there is definitely a need for additional training/capacity building in this area of biotechnology.

Section II. Author Defined: