

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## Colombia

### Agricultural Biotechnology Annual

#### Biotechnology Production and Policy Progress

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**Report Highlights:**

The production of biotech-derived commodities continues to expand with the adoption rate of genetically engineered (GE) corn surpassing GE cotton. The Government of Colombia (GOC) Ministry of Health and Social Protection (MHSP) continues to develop a biotechnology regulatory framework with a “Technical Annex” to be issued in late 2014. The Annex will establish requirements for labeling foods derived from modern biotechnology, identification of raw materials and low level presence (LLP) thresholds.

#### REPORT OUTLINE

Report Highlights:

Section I: Executive Summary

Section II: Plant Biotechnology Trade and Production

Section III: Plant Biotechnology Policy  
Section IV: Plant Biotechnology Marketing issues  
Section V: Plant Biotechnology Capacity Building and Outreach  
Section VI: Animal Biotechnology  
Section VII: Animal Biotechnology Production and Trade  
Section VIII: Animal Biotechnology Policy  
Section IX: Animal Biotechnology Marketing  
Section X: Animal Biotechnology Capacity Building and Outreach

## **Section I. Executive Summary:**

Colombia is a key Latin American market for U.S. agricultural products with export values over US\$1.5 billion in 2013. The implementation of the U.S.-Colombia Trade Promotion Agreement (CTPA) has increased trade opportunities. U.S. exports in products derived from biotechnology or genetic engineering such as corn, cotton, soybeans, soybean meal, soybean oil, and distillers grains were valued at over US\$500 million in 2013.

The Colombian legal framework for agricultural biotechnology regulations remains under review. Colombia approved the Cartagena Protocol on Biosafety (CPB) in 2002. In 2005, Decree 4525 was published to implement the CPB and since then several other Ministerial resolutions were published to outline specific requirements and procedures for approving and using GE products in Colombia. Colombia's biotechnology regulations are regularly reviewed and revised, which provides opportunities to engage GOC regulatory counterparts with outreach activities to facilitate the adoption of science-based regulations. The GOC has created three technical biotechnology committees to analyze environmental, biosafety and food safety impacts of biotech-derived products (see Part B, Policy). The MHSP issued resolution 4254 establishing the requirements for labeling of foods derived from modern biotechnology. The resolution entered into force at the end of June, 2012. In addition to the resolution, the GOC is working on a Technical Annex which supplements the resolution and is expected to be issued in late 2014.

In 2002, GE cotton was approved and was the first biotech plant cultivated on a non-restricted commercial basis in Colombia. GE corn was approved in 2007 and continues to surpass GE cotton adoption with area planted increasing to 75 thousand hectares in 2013. Also, GE Dutch blue carnations continue to be produced under greenhouse conditions for export to Europe as well as GE blue petal roses for exports to Japan. Regarding animal biotechnology, Colombia continues to import GE vaccines for animal diseases (see appendix C).

## **II. Plant Biotechnology**

### **PART A: Production and Trade**

#### a) Product Development

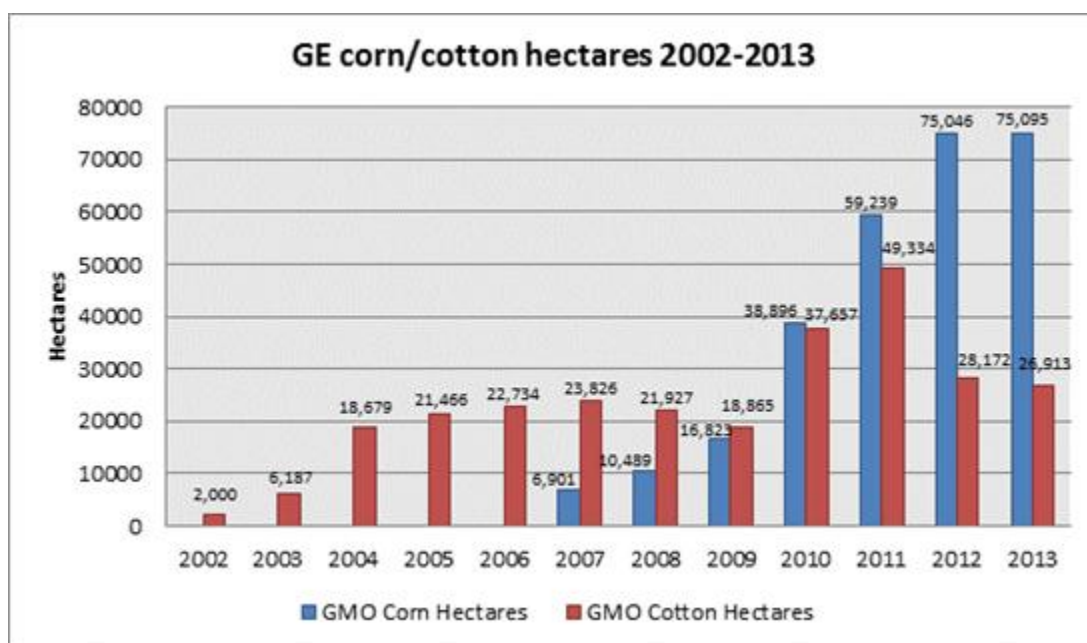
Colombia has not developed any biotechnology crops to date. There are several Colombian organizations conducting specific research projects. The Colombian sugar cane research center

(CENICAÑA) is developing a sugar cane variety resistant to the yellow leaf virus. The International Center for Tropical Agriculture (CIAT) is researching GE rice and cassava. The Colombian Coffee Research Center (CENICAFE) is conducting GE research on tobacco (nicotiana), the fungus *Beaveria bassiana*, and a coffee variety resistant to coffee borer (broca). The International Corporation for Biological Research (CIB) is investigating potatoes resistant to some lepidopterous insects. Colombian universities and research institutes are working together to develop rice and potato biotechnology events. There is increasing GOC and farmer interest to expedite the development of biotechnology events that enhance competitive benefits for local crops that are sensitive to competition from imports. All varieties of events that are developed must go through the regulatory approval process whether intended as an ornamental, for human consumption and/or animal feed.

b) Commercial Production

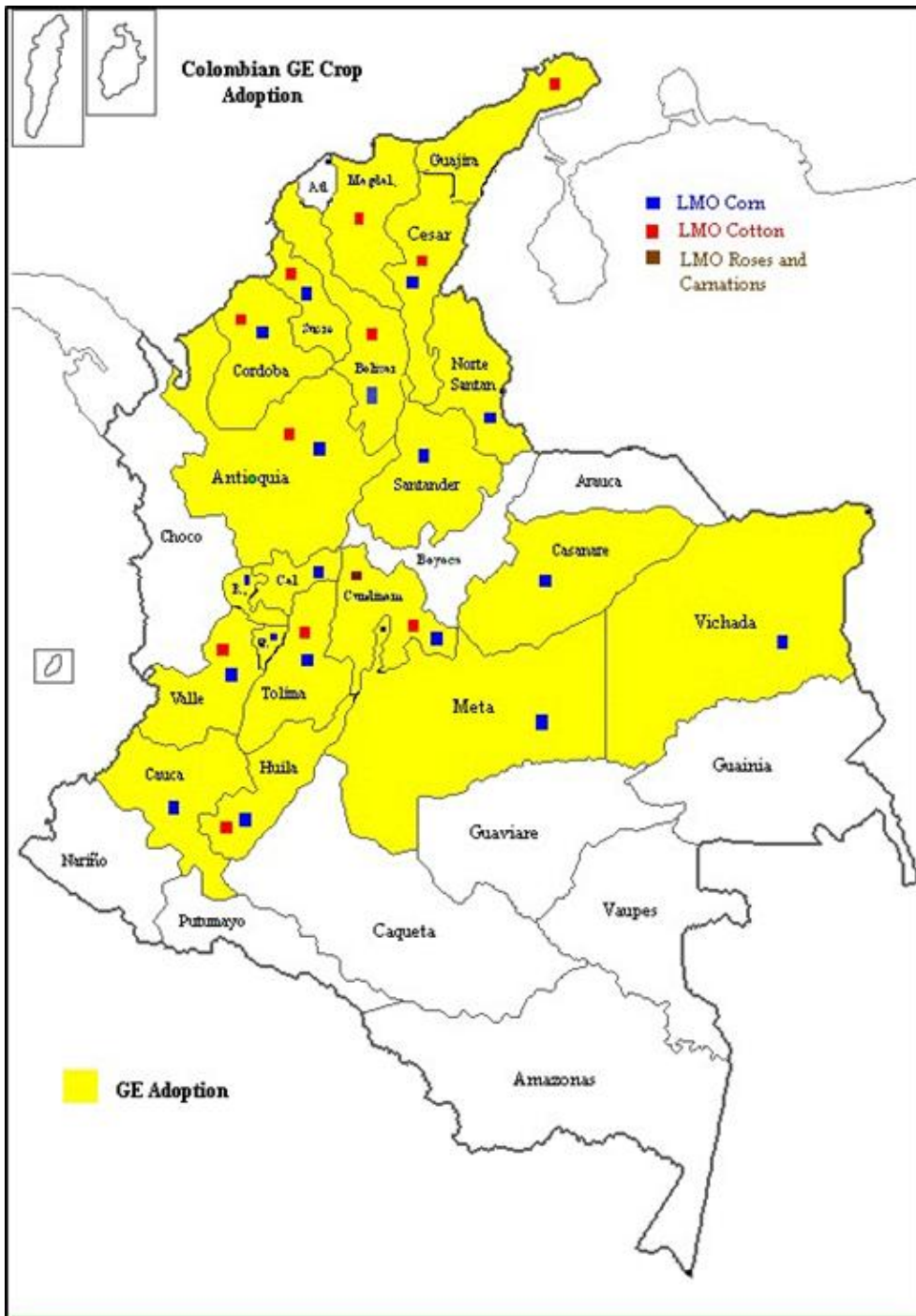
Prior to 2006, the only non-restricted GE approval in Colombia was for the cotton varieties Bollgard and Roundup-Ready. In February 2007, the GOC approved the first stacked event, a cotton variety combining Bollgard and Roundup-Ready traits. The GOC also approved controlled planting of GE corn. In 2010, GE soybean production was approved for commercial cultivation, but has yet to be planted. Biotech blue carnations and blue petal roses are approved for commercial production and only for export. Total area planted for these ornamental crops is 12 hectares each. In 2013, Colombia planted 75 thousand hectares of GE corn and 27 thousand hectares of GE cotton (see chart 1 below). GE cotton area planted fell by 1,259 hectares due to unfavorable growing conditions and low prices. On the other hand, GE corn area planted increased slightly by 49 hectares with GE corn adoption expanding significantly since 2007, taking over GE cotton as the most widespread GE plant cultivated in Colombia. (See Charts 1 and 2)

**Chart 1**



Data provided by ICA -Colombian Agricultural Institute

Chart 2



Data provided by ICA -Colombian Agricultural Institute

In addition to the above-mentioned GE events, there are pending applications for several other crops that are in varying phases of approval (see appendices A and B).

c) Exports

Dutch blue carnations continue to be produced under greenhouse conditions for export to Europe, as well as blue petal roses for exports to Japan. In 2013, area planted remained the same: 12 hectares for Dutch blue carnations and 12 hectares for blue petal roses. One blue petal rose in the Japanese retail market has an estimated value of about US\$40-50.

d) Imports

GE seeds are imported mostly from the United States and occasionally from South Africa, Argentina and Australia (see appendices A and B).

e) Food Aid Recipient Country

Colombia receives limited food aid from the United States. Any food aid containing GE events must have regulatory approval in Colombia for human consumption.

### **III. Plant Biotechnology Policy**

a) Regulatory Framework

The following Ministries are involved in the regulation of agriculture biotechnology and/or conducting risk assessments:

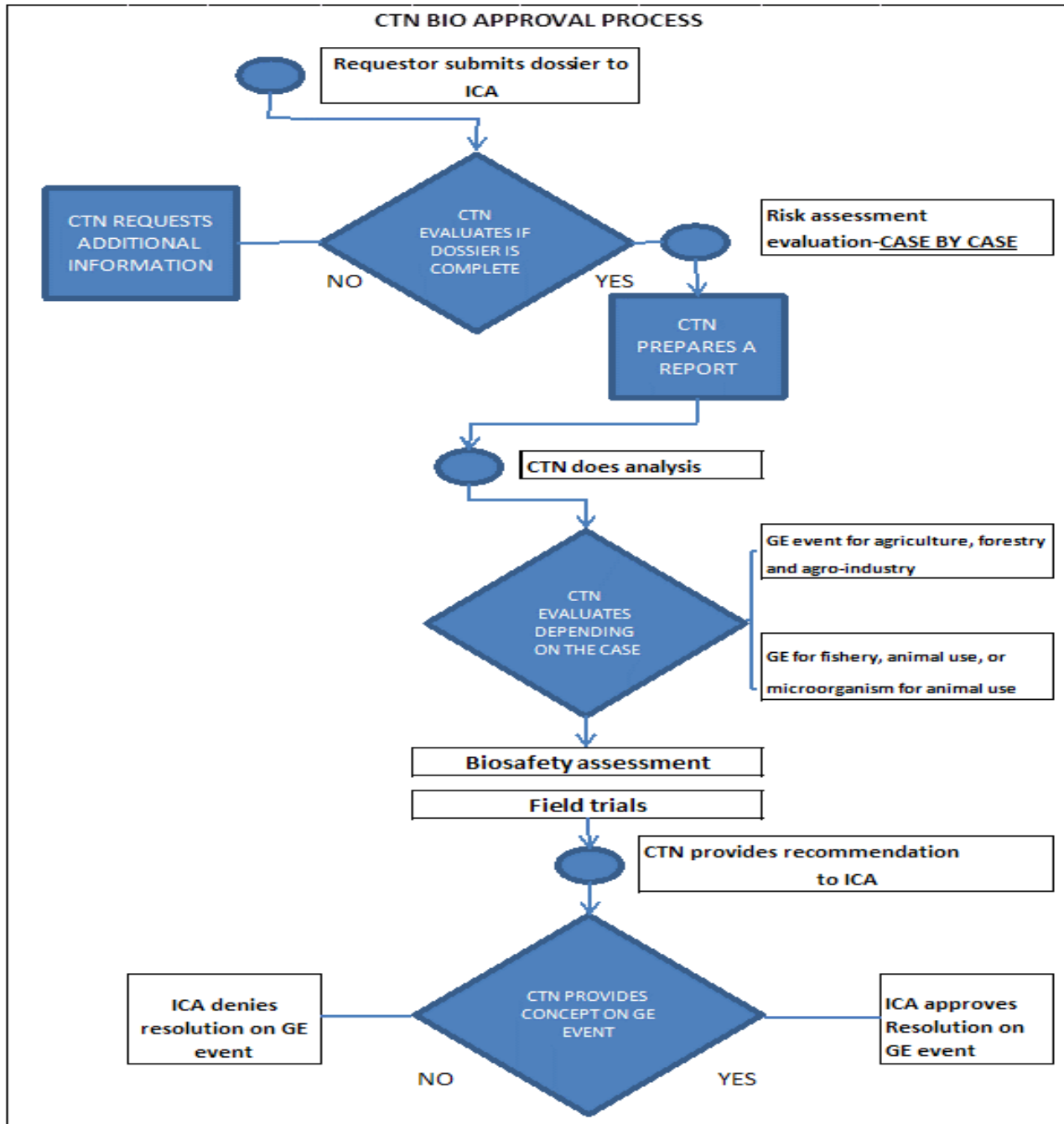
- Ministry of the Environment, Housing and Territorial Development (MEHTD);
- Ministry of Health and Social Protection (MHSP);
- Ministry of Agriculture and Rural Development (MARD);
- Colciencias (Colombian Entity for the Development of Science and Technology);
- MHSP National Institute for the Surveillance of Food and Medicines (INVIMA);
- MARD Colombian Institute for Agriculture and Livestock (ICA).

The MARD is supportive of agricultural biotechnology and is developing a regulatory framework to implement the CPB. The Ministry is considerate of the trade implications of the CBP and understands that the Protocol specifically focuses on trans border movement of GE events derived from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity.

Decree 4525 of December 6, 2005, established three interagency committees composed of the above-mentioned Ministries that are responsible for biosafety issues and the evaluation and approval of biotech events:

**National Technical Committee for Agriculture, Fishery, Forestry and Agro-industry (CTN-Bio):**  
CTN-Bio's role is to assess GE events for the listed sectors. Although the committee has been approving

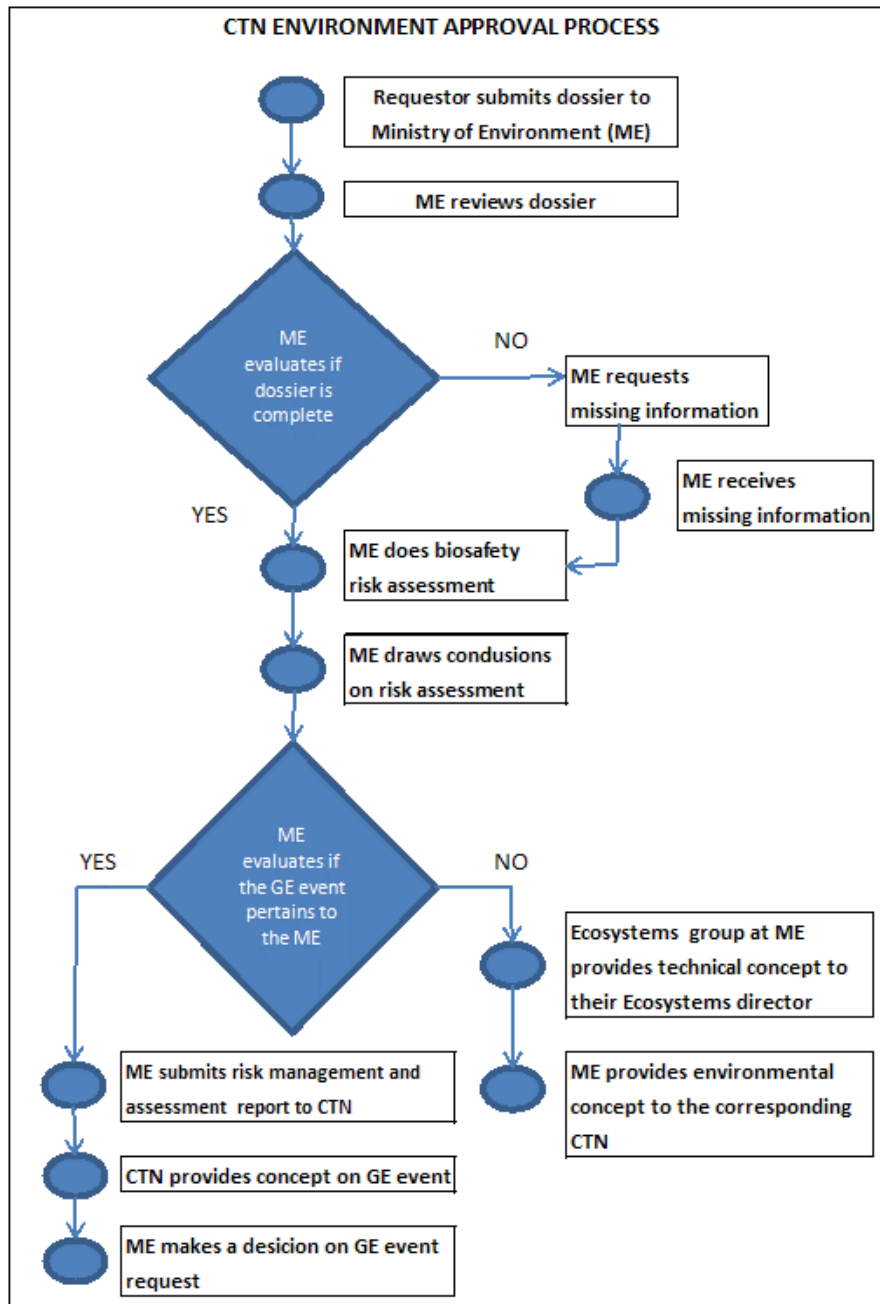
new-to-market GE products, the MEHTD has voiced concerns regarding the environmental impact of events. The time taken to conduct the risk assessment varies since all dissenting concerns by the different ministries must be resolved before a product is approved. The graph below illustrates the CTN-Bio approval process:



Source: BCH Colombia [www.bch.org.co](http://www.bch.org.co) (July 2012)

**National Technical Committee for Environment (CTN-Environment):** This committee's function is

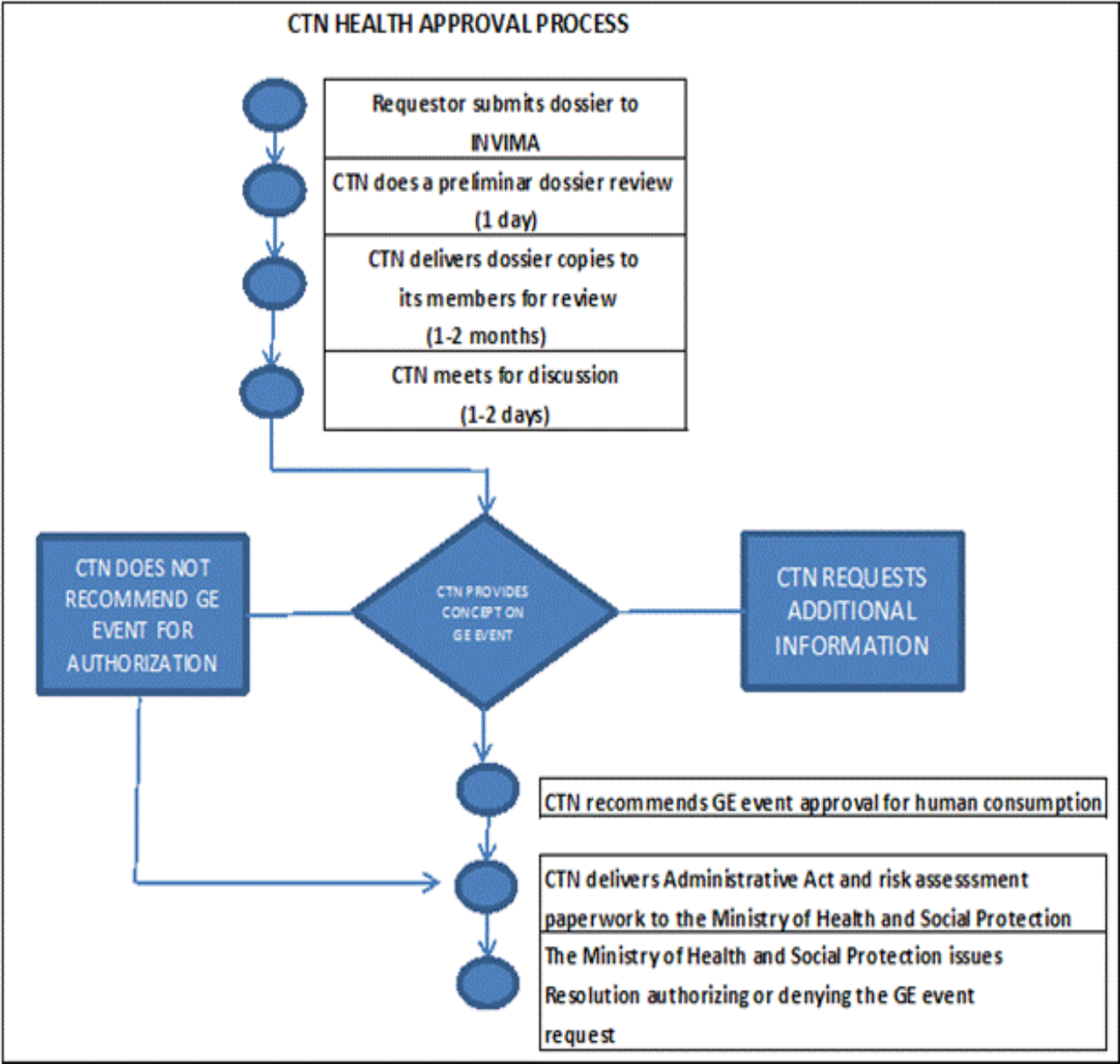
to assess biotechnology events for introduction of GE events that impact the environment. CTN-Environment has yet to receive any requests for review of GE events. However, in May 2010, the MEHTD issued resolution 957 establishing procedures on what companies must submit for evaluation and what the Ministry process of assessing GE events. The committee is now fully operational. The graph below illustrates the CTN-Environment approval process:



Source: BCH Colombia [www.bch.org.co](http://www.bch.org.co) (July 2012)

**National Committee for Health and Human Nutrition (CTN-Health):** CTN Health's function is to

assess the impact of genetically modified events in GE products and by-products on human health. On February 1, 2007 the Ministry of Health and Social Protection issued resolution 227 to establish the functions of the committee making it fully operational. In fact, CTN-Health has submitted a number of recommendations for approval to the Ministry of Health and Social Protection which continues to take long to issue resolutions. However, the industry and the US Government are still pressing the Ministry to streamline their processes, thus creating room for a predictable timetable for issuing resolutions. The graph below illustrates the CTN-Health approval process:



Source: BCH Colombia [www.bch.org.co](http://www.bch.org.co) (July 2012)

b) Approvals



The GOC only permits approved biotech events for commercial cultivation and/or environmental release. The approval process requires each variety with a specific GE trait to be approved. This process can be lengthy. Approvals for feed and food consumption are carried out separately by the CTN-Bio and CTN-Health, respectively. This parallel approval process can result in asynchronous circumstances with some biotech events being approved for food, but not for feed, and others for cultivation, but not for food (See appendix B).

c) Field Testing

Colombia allows field-testing for biotechnology crops (see appendix A) after a risk assessment is submitted to CTN-Bio for review and approval.

d) Stacked Events

Regarding "stacked" events, CTN-Bio requires additional or duplicative field testing. Even though the individual events may have already been approved, the "stacked" variety must independently go through the approval process. It is worth mentioning that stacked events (resistant to some lepidopterous pests and tolerant to Roundup herbicide) continue to be the variety most planted in Colombia.

e) Additional Requirements

There are no additional requirements at this time.

f) Coexistence

ICA has carried out an evaluation of cross-pollination on cotton and found that both GE and non-GE crops do coexist. Regardless, farmers actively apply the practice of buffer zones or a natural barrier of fallow terrain between biotechnology and non-biotechnology crops in compliance with ICA resolution 682 of 2009 for cotton and 2894 of 2010 for corn. Both resolutions also require a 300 meter (984 feet) planting distance between GE and non-GE crops.

g) Labeling

The MHSP issued Resolution 4254 establishing the requirements for labeling of food derived from modern biotechnology. The resolution requires labeling information regarding product health and safety, such as potential allergenicity. Labeling must also address functionality or use of the food as well as identification of significant differences in essential characteristics of the food. In addition to the resolution, the Colombian government is working on a Technical Annex which supplements the resolution and is expected to be issued in late 2014. Agricultural traders and the food industry that deal with biotech-derived commodities will have to comply with the new requirements to ensure shipments for human consumption entering Colombia are approved. Industry and commodity exporters have expressed concerns that not all GE events in international commercial use have been approved in Colombia. This could potentially delay shipments. Regarding labeling for imported GE materials (seeds or other plant reproductive materials and animal products), ICA issued Resolution 946 of April 17, 2006, stating that imported GE materials should be labeled as "Genetically Modified Organisms" or in

Spanish Organismo Modificado Geneticamente. This requirement is being justified under “consumer-right-to-know” principles.

#### h) Trade Barriers

Although there are no trade barriers at this time, the resolution of a reasonable LLP policy is essential to maintain trade flow.

#### i) Intellectual Property Rights

Regarding intellectual property rights (IPR), Colombia follows the guidelines provided as a member of the following groups: the Convention for the Protection of Industrial Property, the General Agreement on Tariffs and Trade (GATT), the International Union for the Protection of New Plant Varieties (UPOV), the G3 Mexico, Colombia and Venezuela Agreement, and the Andean Pact. As a member of the Andean Pact, Colombia adopted Decision 351-Common Provisions on the Protection of the Rights of Breeders of New Plant Varieties and Decision 391, Common Regime on Access to Genetic Resources (Hodson & Carrizosa, 2007).

#### j) Cartagena Protocol Ratification

As a signatory (and ostensibly host) to the CPB, Colombia approved the Biosafety Protocol through Law 740 in 2002 and implemented in September 2003. To date, the regulations to implement the CPB and supporting laws are outlined in: Decree 4525 of December 6, 2005; ICA resolution 1063 of March 22, 2005; ICA resolution 000946 of April 17, 2006; MHSP resolution 0227 of February 1, 2007; and, MEHTD resolution 957 of May 19, 2010.

#### k) International Treaties/Fora

Colombia plays an active role in the discussions of the CPB Conference of the Parties as a signatory. In addition to CPB meeting, Colombia is also a signatory to the International Treaty on Plant Genetic resources for Food and Agriculture, the International Plant Protection Convention (IPPC), and attends CODEX meetings to discuss issues on biotechnology.

#### l) Related Issues

None at this time.

#### m) Monitoring and Testing

In 2009, the GOC issued resolution 682 requiring GE seed companies to adopt a life cycle stewardship approach to guide producers, but specifically for GE cotton production. In September 2012, a resolution was issued for handling GE corn, outlining the regulatory expectations for farmers and GE seed companies. Both resolutions established a production and commercial road map for the two most widely grown GE crops in Colombia. Regarding testing, INVIMA is actively conducting port of entry testing at GOC laboratories to assess imported GE commodities destined as raw material for food and feed and

the potential for unapproved events in shipments, or “asynchronous approvals”. To date, there have been no detections of unapproved events in shipments.

n) Low Level Presence

The Technical Annex will supplement Resolution 4254 and require that GE event imports intended for human consumption be approved. Considering the lengthy timeframe that Colombian regulatory officials take to review and approve new GE events, the GOC has proposed a 5 percent LLP threshold to address asynchronous approvals; however, the Annex is under domestic comments until June 30. After the comment period closes, the Annex will be submitted for international comments for an additional two months. The final draft of the Technical Annex may be issued in late 2014. The LLP threshold will only apply to food use GE events and not for GE raw materials destined for animal feed.

#### **Section IV: Plant Biotechnology Marketing Issues**

a) Market Acceptance

Biotechnology derived commodities have been in use in Colombia for the last 14 years. Most press coverage is favorable and to date, consumers have not voiced major concerns about GE products or products containing GE raw materials. The GOC's structure for biotechnology regulations is science-based for accepting or rejecting new biotechnology events. The basic principle of the GOC is to adopt the technologies that may help the economic/social development of Colombia. The MEHTD has been the most controversial voice on biotechnology approvals. In addition, some indigenous groups have been inspired by non-governmental organizations (NGOs) to oppose the introduction GE crops for planting based on biodiversity concerns.

b) Public/Private Opinions

Although Colombia's approach to biotechnology has been favorable, some environmental NGOs are pressuring government officials to reject biotech-derived technologies. In fact, anti-biotech activists targeted a seed regulation, ICA resolution 970, which establishes requirements for production, imports, exports, storage, trade and use of seeds in Colombia. The activists began a campaign of misinformation about the regulation and the use of biotech-derived seeds, stating that the resolution restricts seed access and forces farmers to buy expensive GE seed from multinational corporations.

c) Marketing Studies

A preliminary IFPRI study (Zambrano et al. 2011) on the benefits of biotech cotton for women indicates that it saved them time and money. The study focused on women farmers, an important stakeholder that needs more detailed study in Colombia. The study helped highlight the role of women as practitioners and beneficiaries of biotech cotton production. (Excerpt from: James, Clive, 2011. Global Status of Commercialized Biotech/GM Crops: 2011. ISAAA Brief No. 43. ISAAA: Ithaca, New York).

#### **Section V: Plant Biotechnology Capacity Building and Outreach**

#### a) Activities

FAS/Bogota has been working together with different industry groups to disseminate information on the benefits of biotechnology and collaborating on the following activities:

- August 2012: FAS collaborated with the U.S. Grains Council (USGC) to send a delegation of industry representatives and GOC regulatory officials in charge of implementing labeling laws per resolution 4254 for GE products to attend a week-long program in Washington, D.C. and New Orleans;
- February 2013: First Colombian Borlaug fellow from the National Rice Producers Association attended a four month biotechnology program at the University of Georgia;
- April 2013: FAS collaborated with the USGC to organize a delegation of GOC regulatory officials and industry representatives to Washington, DC and St. Louis for discussions on LLP policies and trade impacts;
- June 2013: FAS collaborated with the USGC and the Colombian National Industries Association to conduct a two day seminar on LLP policies and the Mexico experience with a zero tolerance LLP policy and impacts on grain trade;
- September 2013: FAS and Department of State partnered with the USGC to conduct a LLP seminar for government officials, private sector representatives and academia with the purpose of highlighting different LLP approaches in Spain and Argentina.
- September 2013: FAS collaborated with the USGC to sponsor a team of three GOC regulatory officials to attend the Global LLP Initiative meeting in Durban, South Africa, in order to introduce proposed LLP policies in Colombia.
- March 2014: FAS collaborated with the USGC to conduct technical meetings with GOC officials responsible for drafting LLP policy.

#### b) Strategies and Needs

Colombia would greatly benefit with more aggressive educational efforts on biotechnology issues. Therefore, FAS/Bogota would like to continue working with appropriate U.S. government agencies to develop projects and programs that strengthen biotechnology knowledge and understanding. Some activities may include:

- GOC attendance at LLP workshops and the Global LLP Initiative would assist GOC officials in making final decisions on LLP policy;
- GOC attendance at the CBP COP/MOP meetings in October 2014;
- Conduct media outreach program to generate knowledge and understanding ensuring a positive operational environment for the seed industry that is directly involved with addressing GE seed intellectual property;
- Educational programs for GOC officials and researchers through Cochran and Borlaug will continue to strengthen biotechnology knowledge and understanding.

### **Section VI: Animal Biotechnology**

#### a) Product Development

According to GOC officials, there has been some research initiatives conducted by universities on animal biotechnology. However, increased costs for this technology seem to be a key factor in discouraging its adoption. Aquaculture and could be a possible area of animal biotechnology research in the long term, in addition to GE cattle, but cost of research could be a deterrent.

b) Commercial Production

None

c) Exports

None

d) Imports

Colombia has focused on importing recombinant vaccines and diagnostic kits for animal diseases (see appendix C).

**Section VIII. Animal Biotechnology Policy:**

a) Regulation

The GOC established a regulatory framework for plant biotechnology that also applies to animal biotechnology. Per Decree 4525, the CTN-Bio is the interagency committee responsible for the evaluation and approval of GE animal products once ICA has conducted a risk evaluation.

b) Labeling and Traceability

Refer to Section III

c) Trade Barriers

No trade barriers have been identified at this time.

d) Intellectual Property Rights (IPR)

No IPR regulation has been identified at this time.

e) International Treaties/Fora

Colombia is a signatory to the CPB and a member country to the World Trade Organization, International Organization for Animal Health and the Codex Alimentarius Commission. ICA is the focal point on animal biotechnology issues.

## Section IX. Animal Biotechnology Marketing

### a), b) Market Acceptance, Public/Private Opinions

Public knowledge of biotechnology is mostly related to plants. Animal biotechnology is not well known and receives little media attention. Animal biotechnology is mostly related to assisted reproductive technologies.

### c) Market Studies

None at this time

## Section X. Animal Biotechnology Capacity Building and Outreach

### a) Activities

Government officials will benefit from risk evaluation training at FDA's Center for Veterinary Medicine, primarily because every single GE event must be submitted to the Risk Unit at ICA prior to an assessment by CTN-Bio.

### b) Strategies and Needs

Colombia has done limited work on animal biotechnology. Therefore, any training and attendance to seminars and workshops would be of interest to GOC officials. Some activities that may help this purpose include:

- Attendance to the animal biotechnology seminar in Brazil;
- Educational programs for GOC officials and researchers through Cochran and Borlaug.

### APPENDIX A. COLOMBIA: CURRENT STATUS OF BIOTECHNOLOGY PRODUCTS FOR PLANTING

<b>Crop</b>	<b>Requesting Company</b>	<b>New Characteristics of Biotechnology</b>	<b>Authorized Activity</b>
Carnations ICA resolution 1219	Flores Colombianas Ltda. (Holland)	Blue Carnations	Approved in 2000 for commercial production of cut flowers for exports only. (green house conditions).
Carnations ICA resolution 3932 ICA resolution 3858	Flower Development (Holland)	Blue Carnations	Approved in 2008 for commercial production of cut flowers for exports only. (green house conditions).
Carnations	Suntory Holdings Limited	Blue Carnations	Approved for commercial production of cut flowers for

ICA resolution 231			exports only. (green house conditions).
ICA resolution 3569			
Roses ICA resolution 3857	International Flower Development (Holland)	Blue Petal Roses	Approved in 2009 for commercial production of cut flowers for exports only. (green house conditions).
ICA resolution 3786			
Chrysanthemum ICA resolution 3785	International Flower Development	Blue Chrysanthemum	Approved for experimental plantings in 2009 (green house conditions).
Chrysanthemum ICA resolution 3570	Suntory Holdings Limited	Blue Chrysanthemum	Approved in 2012 for commercial production of cut flowers for exports only. (green house conditions).
LLCotton25 ICA resolution 1037 ICA resolution 1259 ICA resolution 2403	Bayer CropScience	Tolerant to glufosinate ammonium herbicide	Approved in 2009 for agronomic field trials in the dry and humid Caribbean regions, upper Magdalena river (Tolima, Huila), Cauca river valley and eastern plains. Approved in 2010 for commercial plantings in the upper Magdalena river (Tolima, Huila) and the humid Caribbean region.
Bollgard Cotton-MON 531 ICA resolution 1247 ICA resolution 2202	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects	Approved for commercial plantings since 2003 in the humid Caribbean region, the upper Magdalena river valley (Tolima and Huila) and Cauca river valley. Approved for commercial plantings in the dry Caribbean region in May, 2004 and eastern plains in 2007.
Roundup Ready Cotton-MON 1445 ICA resolution 1006 ICA resolution 366	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide	Approved in 2004 for commercial plantings in the dry Caribbean and humid Caribbean regions. Approved in 2007 for commercial plantings in the upper Magdalena river valley (Tolima and Huila) and Cauca river valley
Bollgard/Roundup Ready Cotton-MON 531XMON 1445 ICA resolution 358	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects and tolerant to Roundup herbicide.	Approved in 2005 for biosafety assessments in the dry Caribbean and humid Caribbean regions, the upper Magdalena river valley (Tolima and Huila), Cauca river

ICA resolution 3852 ICA resolution 2204			valley and Meta. Approved in 2007 for commercial plantings in the upper Magdalena river valley (Tolima and Huila), Cauca river valley, the dry Caribbean and humid Caribbean regions and Orinoquia.
Bollgard II and Roundup Ready Flex Cotton- MON 15985XMON 88913  ICA resolution 3851 ICA resolution 2203	COACOL- Monsanto (United States)	Resistant to a wider variety of lepidopterous insects and completely tolerant to Roundup herbicide	Approved in 2005 for biosafety assessments in the dry Caribbean and humid Caribbean regions, the upper Magdalena river valley (Tolima and Huila), Cauca river valley and Meta. Approved in 2003 for commercial plantings in the dry Caribbean and humid Caribbean regions and Orinoquia. Approved in 2007 for commercial plantings in the upper Magdalena river valley (Tolima and Huila) and Cauca river valley.
Bollgard II and Roundup Ready Flex Cotton- MON 15985XMON 88913  ICA resolution 1681	Bayer CropScience	Resistant to a wider variety of lepidopterous insects and completely tolerant to Roundup herbicide	Approved in 2008 for commercial plantings in the dry Caribbean and humid Caribbean regions, the upper Magdalena river valley (Tolima and Huila), and Orinoquia.
Roundup Ready Flex MON 88913 cotton  ICA resolution 880  ICA resolution 1258	COACOL- Monsanto (United States)	Tolerant to Round Up herbicide	Approved for biosafety assessment in 2008 in dry and humid Caribbean regions, Cauca river valley, upper Magdalena river valley and Orinoquia Approved on 04/09/10 for commercial plantings for dry and humid Caribbean regions, Cauca river valley, upper Magdalena river valley and Orinoquia
Glytol and Liberty Link cotton  ICA resolution 226	Bayer CropScience	Tolerant to Round Up and ammonium herbicide	Approved in 2012 for field trials in dry and humid Caribbean regions, Cauca river valley, upper Magdalena river valley and Orinoquia
Rice  ICA resolution 4041	CIAT (Colombia)	Tolerant to draught	Approved in 2010 for field trials in Villavicencio, Meta
Rice	CIAT (Colombia)	Resistant to White Leaf virus	Approved in 2000 for restricted research and small-scale plantings in open fields, in accordance with risk assessment
Rice	CIAT (Colombia)	Resistant to White Leaf virus	Approved in 2008 for restricted research
Cassava	CIAT (Colombia)	Resistant to the borer of stem/stalk	Approved in 2000 for small-scale plantings in open fields per risk assessment



Cassava	CIAT (Colombia)	Modification of cytokine production	Approved in 2000 for restricted research per risk assessment
Cassava	CIAT (Colombia)	Modification of amilopectin production	Approved in 2000 for restricted research per risk assessment
Cassava	CIAT (Colombia)	Modification of cyanide content	Approved in 2000 for restricted research per risk assessment
Cassava ICA resolution 3854	CIAT (Colombia)		Approved in 2005 for restricted research per risk assessment
Cassava ICA resolution 858	CIAT (Colombia)		Approved in 2008 for restricted research per risk assessment
Brachiaria (grass)	CIAT (Colombia)	"frog hopper" resistant	Approved in 2000 for restricted research per risk assessment
Coffee	CENICAFE (Colombia)	Borer resistant	Approved in 2000 for restricted research per risk assessment.
Potatoes ICA resolution 4469 ICA resolution 1628 ICA resolution 4040	Corporacion de Investigaciones Biologicas (CIB) (Colombia)	Resistant to Tectia solanivora)	Approved for field trials in Rio Negro, Antioquia in 2010
Tobacco ICA Resolution 2492	CENICAFE (Colombia)		Approved in 2010 for confined research
Fungus ICA Resolution 2492	CENICAFE (Colombia)		Approved in 2010 for confined research
Coffee plants "coffee Arabica" ICA Resolution 2492	CENICAFE (Colombia)		Approved in 2010 for confined research
Sugar cane ICA Resolution 3995	CENICAÑA (Colombia)	Resistant to the yellow leaf syndrome	Approved in 2005 for restricted research and small-scale plantings in open fields per risk assessment
Yieldgard Corn Mon 810 ICA resolution 3850 ICA resolution 3743 ICA resolution 465 ICA resolution 1727	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects	Approved in 2005 for biosafety assessments in the humid Caribbean region, upper Magdalena river (Tolima, Huila), Cauca river. Approved in 2007 for controlled plantings in the humid Caribbean region, upper Magdalena river (Tolima, Huila), Cauca river valley and eastern plains. Approved in 2008 for controlled plantings in the dry Caribbean, upper

			Magdalena river (Tolima, Huila), Cauca river, eastern plains and the Coffee region
Yieldgard Corn ICA resolution 3742 ICA resolution 646	Dupont (United States)	Resistant to some lepidopterous insects	Approved in 2008 for controlled plantings in the dry and humid, Caribbean and the Coffee region
Yieldgard 2 Corn	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Risk assessment since 2005
Yieldgard VPro Corn MON 89034 ICA resolution 881	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects	Approved in 2007 for biosafety field trials in the dry and humid Caribbean regions, the Coffee region, upper Magdalena river valley (Tolima, Huila), Cauca river valley and eastern plains
Roundup Ready Corn (RR 2 corn) ICA resolution 1728 ICA resolution 3849 ICA resolution 3740	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Approved in 2005 for biosafety assessments the humid Caribbean region (Cordoba), upper Magdalena river valley (Tolima, Huila), Cauca river valley and eastern plains. Approved in 2007 for controlled plantings in the humid Caribbean region (Cordoba), upper Magdalena river valley (Tolima, Huila), Cauca river valley and eastern plains. Approved in 2008 for controlled plantings in the dry Caribbean and the coffee region
Roundup Ready Corn ICA resolution 3739 ICA resolution 1680	Dupont (United States)	Tolerant to Roundup herbicide.	Approved in 2008 for controlled plantings in the dry Caribbean and the coffee region Approved in 2007 for controlled plantings in the humid Caribbean region, upper Magdalena river, Cauca river valley and eastern plains.
Yieldgard VPro X Roundup Ready 2 corn- MON 89034 X NK 603 ICA resolution 3784 ICA resolution 1851 ICA resolution 225 ICA resolution 233	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects and tolerant to Roundup herbicide.	Approved in 2009 for controlled plantings in the coffee region. Approved in 2011 for controlled plantings in the dry and humid Caribbean regions, upper Magdalena river valley (Tolima, Huila), Cauca river valley and eastern plains. Approved in 2012 for controlled plantings in the coffee region.

Yieldgard X Roundup Ready Corn ICA resolution 2201 ICA resolution 3744	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Approved in 2007 for controlled plantings in the humid Caribbean region (Cordoba), upper Magdalena river valley (Tolima, Huila), Cauca river valley and eastern plains. Approved for biosafety assessments in 2007 in the dry Caribbean region and the coffee region. Approved in 2008 for controlled plantings in the dry Caribbean and the Coffee region.
Herculex I Corn ICA resolution 1729 ICA resolution 3853 ICA resolution 3741 ICA resolution 3575 ICA resolution 464 ICA resolution 3351	Dupont (United States)	Resistant to some lepidopterous insects	Approved for biosafety assessments in 2005 in the humid Caribbean region (Cordoba), upper Magdalena river valley (Tolima, Huila), and Cauca river valley. Approved for biosafety assessments in 2007 in the dry Caribbean region and the coffee region. Approved in 2007 for controlled plantings in the humid Caribbean region (Cordoba), upper Magdalena river valley (Tolima, Huila), Cauca river valley and eastern plains. Approved in 2008 for controlled plantings in the coffee region and the upper Magdalena river. Approved in 2012 for controlled plantings in the Dry Caribbean.
Herculex I ICA resolution 859	Dow AgroSciences		Approved for biosafety assessments in 2008 in the dry and humid Caribbean region, Cauca river valley, the coffee region, the upper Magdalena river, and eastern plains
Herculex I X Roundup Ready corn ICA resolution 3745 ICA resolution 878 ICA resolution 1677	Dupont (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Approved for controlled plantings in the humid Caribbean region, Cauca river valley and eastern plains. Approved in 2008 for controlled plantings in the coffee region, the upper Magdalena river, Cauca river valley and eastern plains.
Herculex RW corn ICA resolution 4469	Dupont (United States)	Tolerant to glufosinate	Approved in 2010 for biosafety and agronomic trials in the humid and dry Caribbean region, Upper Magdalena river valley, Cauca river valley, Orinoquia and the coffee region, Cauca river valley and eastern plains.
Herculex I X Roundup	Dow	Resistant to some	Approved in 2008 for controlled

Ready corn ICA resolution 3738	AgroSciences de Colombia S.A.	lepidopterous insects and tolerant to Roundup herbicide	plantings in the coffee region, the humid Caribbean region, the upper Magdalena river.
Bt 11 corn ICA resolution 3848 ICA resolution 1679 ICA resolution 3787	Syngenta (Switzerland)	Resistant to some lepidopterous insects	Approved for biosafety assessments in 2005 in the humid Caribbean region, Upper Magdalena river valley, Cauca river valley and Orinoquia. Approved in 2008 for controlled plantings in the humid Caribbean region and Cauca river valley. Approved in 2009 for controlled plantings in Magdalena river valley and eastern plains
CCR corn-MON 88017	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide and resistant to rootworm.	Approved for biosafety trials
GA 21 corn ICA resolution 2936 ICA resolution 877	Syngenta (Switzerland)	Tolerant to Roundup gene epsps	Approved for biosafety trials in the dry and humid Caribbean region, Cauca river valley, upper Magdalena river, coffee region and Orinoquia. Approved in 2010 for controlled plantings in the humid and dry Caribbean region, Upper Magdalena river valley, Cauca river valley and Orinoquia
Bt 11 X GA 21 corn ICA resolution 3915	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Approved in 2010 for controlled plantings in the humid Caribbean region, Upper Magdalena river valley, Cauca river valley and Orinoquia
MON 89034-3 x MON 00603-6 corn ICA resolution 1036	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide, resistant to some lepidopterous insects	Approved on 03/16/09 for biosafety field trials in the humid and dry Caribbean region, Upper Magdalena river valley, Cauca river valley and Orinoquia
MIR162 (SYN-IR162-4) Corn ICA resolution 1257 ICA resolution 3574 ICA resolution 425	Syngenta (Switzerland)	Resistant to some lepidopterous insects	Approved on 09/04/2010 for biosafety trials and agronomic assessment in the dry and humid Caribbean regions, upper Magdalena river valley (Tolima, Huila), Cauca river valley, Orinoquia Approved on 09/28/12 for controlled plantings for humid Caribbean regions, and Orinoquia.

ICA resolution 426			Approved in 2014 for controlled plantings in the Cauca river valley, upper Magdalena river and dry Caribbean.
MON VT Triple PRO (VT3P) (MON 89034 X MON 88017) corn ICA resolution 1260	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide, resistant to rootworm	Approved on 03/16/09 for biosafety field trials in the humid and dry Caribbean region, Magdalena river valley, Cauca river valley and Orinoquia
Bt11x MIR162 x MIR604 x GA21 corn ICA resolution 3572	Syngenta (Switzerland)	Tolerant to herbicide and resistant to insects	Approved on 09/28/2012 for biosafety trials and agronomic assessment in the dry and humid Caribbean regions, upper Magdalena river valley (Tolima, Huila), Cauca river valley, Orinoquia and coffee region.
DAS 59122-7xTC1507xNK603 corn ICA resolution 1419 ICA resolution 3664	Dupont (United States)	Resistance to coleopteran and lepidopteran pests, and glyphosate and glufosinate ammonium tolerance	Approved on 03/18/2011 for biosafety trials and agronomic assessment in the dry and humid Caribbean regions, upper Magdalena river valley (Tolima, Huila), Cauca river valley, Orinoquia and coffee region.
MON 89034x1507xNK603 corn ICA resolution 3049	Dow AgroSciences de Colombia S.A.		Approved for controlled planting un 2013
Roundup Ready soybean ICA resolution 1035 ICA resolution 2404 ICA resolution 227	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide	Approved in 2009 for biosafety field trials in the dry and humid Caribbean regions, upper Magdalena river valley (Tolima, Huila), and Cauca river valley. Approved for commercial plantings on 07/19/2010 in Orinoquia and on 02/02/2012 in Cauca river valley
Round Up ready 2 Yield soybean ICA resolution3669 ICA resolution 3660	COACOL-Monsanto (United States)		Approved in 2011 for biosafety assessment in the dry and humid Caribbean regions, upper Magdalena river valley (Tolima, Huila), Cauca river valley and Orinoquia.

**APPENDIX B. COLOMBIA: CURRENT STATUS OF BIOTECHNOLOGY PRODUCT APPLICATIONS FOR FOOD, FEED and HEALTH**

<b>Crop</b>	<b>Requesting Company</b>	<b>New Characteristics of Biotechnology</b>	<b>Approved Applications</b>	<b>Approval Date</b>
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Bollgard cotton-MON 531 SEABA ACT III	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects	Raw material for food and feed	06/24/2004 06/08/2003
Roundup Ready cotton-MON 1445 SEABA ACT V	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for food and feed	11/12/2003 10/27/2003
Bollgard II cotton-MON 15985 MSP resolution 4587	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects	Raw material for feed and food	Approved for food on 11/26/2009
Roundup Ready Flex cotton-MON 88913 MSP resolution 4582 ICA resolution 311	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide and to a wider spectrum of weeds	Raw material for feed and food	Approved for food on 11/26/2009 Approved for feed on 11/02/2008
LL Cotton 25 ICA resolution 307	Bayer CropScience	Tolerant to Roundup herbicide	Raw material for feed	Approved for feed on 02/11/2008
Bollgard II+Roundup Ready Flex cotton-MON 15985XMON 88913 MSP resolution 2390 ICA resolution 2944	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects, tolerant to Roundup herbicide and to a wider spectrum of weeds	Raw material for feed and food	Approved for food on 06/24/2010 Approved for feed on 11/06/2007
GHB 614 Glytol cotton ICA resolution 3567	Bayer CropScience	Tolerant to herbicide	Raw material for feed	Approved for feed on 09/28/2012
GHB 614 Glytol x LL cotton 25	Bayer CropScience	Tolerant to herbicide	Raw material for feed	Approved for feed on 09/28/2012
Bollgard+Roundup Ready cotton-MON 531XMON 1445 MSP resolution 2179 ICA resolution 2943	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Raw material for food and feed	Approved for food on 06/16/2008 Approved for feed on 11/06/2007
Yieldgard corn-MON 810 SEABA ACT V ICA resolution 3746	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects	Raw material for food and feed	10/27/2003 12/15/2006
Roundup Ready corn-MON 603 SEABA ACT II ICA resolution 3744	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for food and feed	03/29/2004 12/15/2006
Yieldgard Rootworm corn CRW	COACOL-Monsanto (United States)	Resistant to rootworm		Pending ICA's approval for feed. Pending Ministry of Social Protection's approval for food

				since 06/27/2008
Yieldgard+Roundup Ready corn-MON 810XNK 603  MSP resolution 4583  ICA resolution 1365	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Raw material for feed and food	Approved for feed on 06/04/2007 and food on 11/26/2009
Bt Herculex I corn-DAS 01507-1  SEABA ACT V ICA resolution 3745	Dupont (United States)	Resistant to some lepidopterous insects	Raw material for food and feed	Approved on 10/17/2006 12/15/2006
Herculex I X Roundup Ready corn-TC 1507XNK 603  ICA resolution 3083 MSP resolution 506	Dupont (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Raw material for feed and food	Approved for feed on 08/18/2009 Approved for food in 2010
Herculex RW corn-DAS 59122  ICA resolution 4473 MSP resolution 1708	Dupont (United States)	Resistant to some lepidopterous insects	Raw material for feed and food	Approved for feed on 12/27/2010 Approved for food on 5/18/2011
Yieldgard+Lysine corn-MON 810X LY 038	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects. High lysine content	Raw material for feed	Pending
Yieldgard VTPro corn-MON 89034  MSP resolution 2394 ICA resolution 2367	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects	Raw material for feed and food	Approved for food on 6/24/2010 Approved for feed on 08/28/2007
MON VT Triple PRO (VT3P) (MON 89034 X MON 88017) corn  MSP resolution 1710 ICA resolution 3661	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects	Raw material for food and feed	Approved for food on 5/18/2011 Approved for feed on 9/16/2011
Yieldgard VTPro Corn X Roundup Ready 2-MON 89034 X NK 603  ICA resolution 3659 MSP resolution 2395	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects and tolerant to Roundup herbicide	Raw material for feed and food	Approved for feed on 9/16/2011 Approved for food on 6/29/2010
CCR corn-MON 88017	COACOL-Monsanto	Resistant to some lepidopterous insects	Raw material for food	Approved for food on 5/18/2011

MSP resolution 1712	(United States)	and tolerant to Roundup herbicide		Approved for feed on 04/09/2010
ICA resolution 1254				
Yieldgard+CCR corn-MON 810X MON 88017	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects, rootworm and tolerant to Roundup herbicide	Raw material for food and feed	Approved for food on 05/27/2011. Approved for feed on 09/16/2011
MSP resolution 1904				
ICA resolution 3667				
Lysine corn-LY p38	COACOL-Monsanto (United States)	High lysine content	Raw material for food and feed	Approved for food on 11/26/2009. Approved for feed on 07/19/2010
MSP resolution 4585				
ICA resolution 2405				
Bt 11 corn	Syngenta (Switzerland)	Resistant to some lepidopterous insects	Raw material for food and feed	Approved for food on 4/13/2009
MSP resolution 1078				Approved for feed on 02/11/2008
ICA resolution 309				
GA 21 corn	Syngenta (Switzerland)	Tolerant to Roundup herbicide	Raw material for feed and food	Approved for food on 06/27/2012
ICA resolution 2402				Approved for feed on 07/19/2010
MSP resolution 1692				
Bt 11 X GA 21 corn	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Raw material for feed and food	Approved for feed on 12/27/2010. Approved for food on 06/27/2012
ICA resolution 4474				
MSP resolution 1695				
Smartstax corn -Mon 89034 X TC1507 X MON 88017 X DAS59122-7	COACOL-Monsanto (United States) and Dow Agrosiences	Resistant to some lepidopterous insects, to root worm and tolerant to Roundup herbicide and to glufosinate	Raw material for food and feed	Approved for food on 6/24/2010 and for feed on 09/16/2011
MSP resolution 2393				
ICA resolution 3662				
MIR 162 corn	Syngenta (Switzerland)	Resistant to some lepidopterous insects	Raw material for feed and food	Approved for food on 6/27/2012.
ICA resolution 4471				Approved for feed on 12/27/2010
MSP resolution 1693				
BT 11xMIR 162xGA21 corn	Syngenta (Switzerland)	Resistant to some lepidopterous insects nad tolerant to herbicides	Raw material for feed and food	Approved for feed on 07/19/2010.
ICA resolution 2407				Approved for food on 06/27/2012
MSP resolution 1694				
MON 87460 corn	COACOL-Monsanto (United States)	Tolerant to drought	Raw material for food and feed	Approved for food on 05/18/2011
MSP resolution 1709				Approved for feed on 02/02/2012
ICA resolution 224				



MON 863-5 corn ICA resolution 4475 MSP resolution 1711	COACOL- Monsanto (United States)	Resistant to some lepidopterous insects	Raw material for feed and food	Approved for feed on 12/27/2010 Approved for food on 5/18/2011
BT 11 X MIR 162X MIR 604X GA 21 corn  MSP resolution 119	Syngenta (Switzerland)	Root worm resistant and tolerant to herbicides	Raw material for food	Approved for food on 01/26/2012
BT 11 X MIR 604 corn  MSP resolution 120	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Raw material for food	Approved for food on 01/26/2012
MIR 604 corn  MSP resolution 118 ICA resolution 229	Syngenta (Switzerland)	Root worm resistant	Raw material for food and feed	Approved for food on 01/26/2012 Approved for feed on 02/02/2012
MIR 604 X GA 21 corn ICA resolution 230	Syngenta (Switzerland)		Raw material for feed	Approved for feed on 02/02/2012
BT 11XMIR 604X GA 21 corn  ICA resolution 232	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to herbicide	Raw material for feed	Approved for feed on 02/02/2012
Liberty Link corn-T25  MSP resolution 121 ICA resolution 3666	Bayer Cropscience (United States)	Tolerant to Roundup herbicide	Raw material for food and feed	Approved for food on 01/26/2012 Approved for feed on 09/16/2011
T25 XMON 810 corn	Bayer Cropscience (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Raw material for food	Approved for food on 01/26/2012
T25 X NK 603 corn  MSP resolution 115 ICA resolution 228	COACOL- Monsanto (United States)	Tolerant to herbicide	Raw material for food and feed	Approved for feed on 02/02/2012 Approved for food on 01/26/2012
DAS 1507XMON 810 corn  MSP resolution 1487 ICA resolution 3573	DUPONT	Resistant to some lepidopterous insects	Raw material for food and feed	Approved for food on 06/13/2012 Approved for feed on 09/28/2012
DAS 1507XMON 810X MON 603 corn  MSP resolution 1488 ICA resolution 3571	DUPONT	Resistant to some lepidopterous insects and tolerant to herbicide	Raw material for food and feed	Approved for food on 06/13/2012 Approved for feed on 09/28/2012
DAS 1507X DAS 59122X MON 603 corn  MSP resolution 1486 ICA resolution 3578	DUPONT	Resistant to some lepidopterous insects and tolerant to herbicide	Raw material for food and feed	Approved for food on 06/13/2012 Approved for feed on 09/28/2012

MON 89034 X DAS 1507X NK 603 corn  ICA resolution 3050	COACOL- Monsanto (United States)  Dow Agrosciences		Raw material for feed	Approved for feed on 07/05/2013
BT11 X MIR604 X GA21 corn  ICA resolution 3046  MSP resolution 775	Syngenta		Raw material for feed	Approved for feed on 07/05/2013  Approved for food in 2014
BT11 X MIR604 corn  ICA resolution 3048	Syngenta		Raw material for feed	Approved for feed on 07/05/2013
MIR 604 X GA21 corn  MSP resolution 769	Syngenta		Raw material for food	Approved for food in 2014
SYN E3272-5 corn  ICA resolution 3043	Syngenta		Raw material for feed	Approved for feed on 07/05/2013
SYN E5307-1 corn  ICA resolution 3047	Syngenta		Raw material for feed	Approved for feed on 07/05/2013
DAS 40278-9 corn  ICA resolution 3052  MSP resolution 774	Dow Agroscience		Raw material for feed and food	Approved for feed on 07/05/2013 Approved for food in 2014
Roundup Ready wheat *1-MON 71800  SEABA ACT II	COACOL- Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for food	Approved for food on 3/29/2004
Roundup Ready soybeans-MON 04032-6/GTS 40302  SEABA ACT VII ICA resolution 2942	COACOL- Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for food and feed	Approved for food on 12/9/2005 Approved for feed on 11/06/2007
Roundup Ready 2Yield soybeans-MON 89788  ICA resolution 1256 MSP resolution 2391	COACOL- Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for feed and food	Approved for feed on 04/09/2010. Approved for food on 06/24/2010
GAT Soybeans- DP 356043  MSP resolution 2392 ICA resolution 2406	Dupont (United States)		Raw material for food and feed	Approved for food on 6/24/2010. Approved for feed on 7/19/2010
MON 87701X MON 89788 soybeans  MSP resolution 116	COACOL- Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide	Raw material for food and feed	Approved for food on 01/26/2012. Approved for feed on 09/16/2011

ICA resolution 3663				
Glycine Max soybean-CV 127 MSP resolution 117 ICA resolution 3668	Basf Inc	Tolerant to Roundup herbicide	Raw material for food and feed	Approved for food on 01/26/2012. Approved for feed on 09/16/2011
MON 87705 soybean ICA resolution 3566 MSP resolution 338	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for feed and food	Approved for feed on 09/28/2012 and food in 2014
MON 87769 soybean ICA resolution 3565 MSP resolution 339	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for feed and food	Approved for feed on 09/28/2012 and food in 2014
A5547 soybean ICA resolution 3564	Bayer CropScience	Tolerant to herbicide	Raw material for feed	Approved for feed on 09/28/2012
A2704 soybean ICA resolution 3579	Bayer CropScience	Tolerant to herbicide	Raw material for feed	Approved for feed on 09/28/2012
DAS68416-4 soybean ICA resolution 3051	Dow Agrosience		Raw material for feed	Approved for feed on 07/05/2013
Roundup Ready sugar beet-H7-1/KM 0071 ICA resolution 1255 SEABA ACT VII	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide	Raw material for food and feed	Approved on 12/9/2005 for food. Approved on 04/09/2010 for feed
Liberty-link rice LLRice62 MSP resolution 3674 ICA resolution 308	Bayer CropScience (United States)	Tolerant to herbicide	Raw material for food and feed	Approved for food on 9/26/2008 Approved for feed on 02/11/2008
LLRice601 MSP resolution 5333 ICA resolution 310	Bayer CropScience (United States)	Tolerant to herbicide	Raw material for food	Approved on 12/26/2008 Approved for feed on 02/11/2008
Mice 3XTg AD MSP resolution 2836	Universidad de Antioquia		Controlled health research	Approved for food on 7/30/2008
Mice ApoE-/- 6 Apoe "knock out" MSP resolution 2835	Universidad de Antioquia		Controlled health research	Approved on 7/30/2008

**APPENDIX C. COLOMBIA: CURRENT STATUS OF BIOTECHNOLOGY PRODUCT APPLICATIONS FOR ANIMAL USE**

<b>Description</b>	<b>Requesting Company</b>	<b>Species</b>	<b>Approved Applications</b>	<b>Approval Date</b>
Small pox vaccine-	Vetiplus Ltda	Poultry	Small pox	12/15/2006

Vectomune FP-LT ICA resolution 3739				
Small pox vaccine- Vectomune FP-MG	Vetiplus Ltda	Poultry	Small pox	03/13/2007
ICA resolution 561				
Vaxxitek HVT+IBD	Carval de Colombia	Poultry	Marek and Bolsa disease	11/06/2007
ICA resolution 2946				
Innovax ND-SB Virus Serotypes 2 and 3. Poultry recombinant vaccine	Intervet Colombia Ltda	Poultry	Marek disease and Newcastle disease	04/09/2010
ICA resolution 1250				
Poultry Anigen AIV Ab Elisa Kit	Annar DiagnostICA Import S.A.S	Poultry	Avian Influenza	04/09/2010
ICA Resolution 1251				
Poulvac E. Coli poultry inactivated subunit vaccine	Wyeth Inc	Poultry	Avian Colibacillosis	04/09/2010
ICA resolution 1252				
Innovax ILT poultry recombinant vaccine	Intervet Colombia Ltda	Poultry	Marek's disease and Laryngotracheitis	04/09/2010
ICA resolution 1253				
Poultry recombinant vaccine	Vetiplus S.A.	Poultry	Marek and Gumboro disease	07/19/2010
ICA resolution 2399				
Poultry recombinant vaccine	Vetiplus S.A.	Poultry	Marek and Newcastle disease	07/19/2010
ICA resolution 2400				
Innofusion ND	Intervet Colombia Ltda	Poultry	Marek and Newcastle disease	12/31/2012
ICA resolution 5990				
Vectormune FP-LT-EC Vaccine	Vetiplus S.A.	Poultry	Laryngotracheitis and smallpox	10/28/2011
ICA resolution 4125				
Vectorvac FP-LT ICA resolution 5988	Amerivet SAS	Poultry	Laryngotracheitis and smallpox	12/31/2012
Ingelvac-CircoFlex ICA resolution 2945	Boehringer- Ingelheim	Swine	Circovirus type 2	11/06/2007

Vaccine ICA resolution 3318	Suvaxyn PCV2	Swine	Circovirus type 1	09/24/2008
Porcillis inactivated subunit vaccine ICA resolution 1227	Intervet Colombia Ltda	Swine	Circovirus type 2	2009
Vaccine ICA resolution 4472	Intervet Colombia Ltda	Swine	Neonatal entererotoxicosis	12/27/2010
Porcillis PCV ICA resolution 5987	Intervet Colombia Ltda	Swine		12/31/2012
Circumvent PCV M ICA resolution 5989	Intervet Colombia Ltda	Swine	Protection for both circovirus and Mycoplasma hyopneumoniae	12/31/2012
Anigen Rapid E. diagnostic kit ICA resolution 4470	Annar Diagnostica Import S.A.S	Dogs	Immunochromatography diagnostic kit	12/27/2010
Feline immunodeficiency and leukemia virus diagnostic kit ICA resolution 2401	Annar Diagnostica Import S.A.S	Felines	Feline immunodeficiency and leukemia virus	07/19/2010
Leucogen ICA resolution 4126	Virbac Colombia Ltda.	Felines	Leukemia	10/28/2011
Synbiotics La-EZ/EIA Elisa diagnostic kit	ADN Internacional S.A.	Equines	Equine infectious anemia	2012