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Report Highlights:

Colombia remains open to the adoption of biotech-derived commodities and innovative technologies. While area planted to GE (genetically engineered) corn decreased in response to an overall decrease in corn, there was slight recovery in cotton plantings. Colombia recently approved commercial plantings of the first domestically developed corn genotype containing the TC-1507 off-patent event. The Colombian government and stakeholders have to finalize discussions on biotechnology regulations regarding low-level presence (LLP), GE labeling, and GE seeds to stabilize Colombia's regulatory environment for GE products.

Section I. Executive Summary:

Colombia is generally open to biotechnology. However, labeling, GE seed proposed banning and approval synchronicity issues, as well as internal discussions around key biotechnology regulations are causing some regulatory uncertainty, and potentially hindering the adoption of new technologies.

The implementation of the U.S.-Colombia Trade Promotion Agreement (CTPA) propelled Colombia to become the second largest market in Latin American for U.S. agricultural exports. In 2018, trade values were above $2.9 billion. U.S. exports in GE derived agricultural products such as corn, cotton, soybeans, soybean meal, soybean oil, and distillers' grains were valued at $1.8 billion in 2018.

Parts of the Colombian agricultural biotechnology regulatory framework remain under review by the Government of Colombia (GOC). Colombia approved the Cartagena Protocol on Biosafety (CPB) in 2002. In 2005, Decree 4525 was published to implement the CBP. Since then, several other GOC regulatory measures have been published to outline specific requirements and procedures for approving and using GE agricultural and derived products in Colombia. Colombia's biotechnology regulations are reviewed and modified, providing opportunities to engage GOC regulatory agencies with technical outreach that facilitates the adoption of science-based regulatory policies, especially on low-level presence (LLP), labeling and innovative technologies. Regarding the latter, the GOC issued Resolution 29299 for crops obtained through the use of innovative technologies to determine if the cultivar corresponds to a living modified organism or a conventional organism.

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 Ministry of Health and Social Protection (MHSP) issued Resolution 4254 establishing the requirements for labeling of foods derived from modern biotechnology. The resolution was implemented in June 2012. In addition, the GOC has been working on establishing a LLP threshold policy for five years, but internal deliberations continue. In the meantime, on September 8, 2015, the Constitutional Court ruled in favor of mandatory labeling of GE organisms in response to a lawsuit attacking Consumer Law 1480, Article 24, which refers to labeling, but does not address GE labeling. Despite the two-year deadline to develop mandatory labeling regulations, the GOC has not produced final rules, but the issue is currently being revisited.

In 2002, GE cotton was the first GE plant cultivated on a non-restricted commercial basis in Colombia. The first GE corn traits were approved in 2007. Although GE corn continues to surpass GE cotton area planted with 76,014 hectares in 2018, GE cotton area planted showed a 33 percent recovery. GE cotton represents 90 percent of total area planted while GE corn represents 19 percent of total area planted. Also, GE Dutch blue carnations continue to be produced under greenhouse conditions for export to Europe, and GE blue petal roses for exports to Japan. Regarding domestic GE event development, Colombia recently approved commercial plantings of the first GE off patent corn event on August, 2019.

On the subject of animal biotechnology, Colombia continues to import GE vaccines for animal diseases (See appendix C).

Table of Contents

g) Related issues
PART F: Marketing
a) Public/Private Opinions
b) Market Acceptance/Studies

CHAPTER 1: PLANT BIOTECHNOLOGY

PART A: Production and Trade

a) Product Development

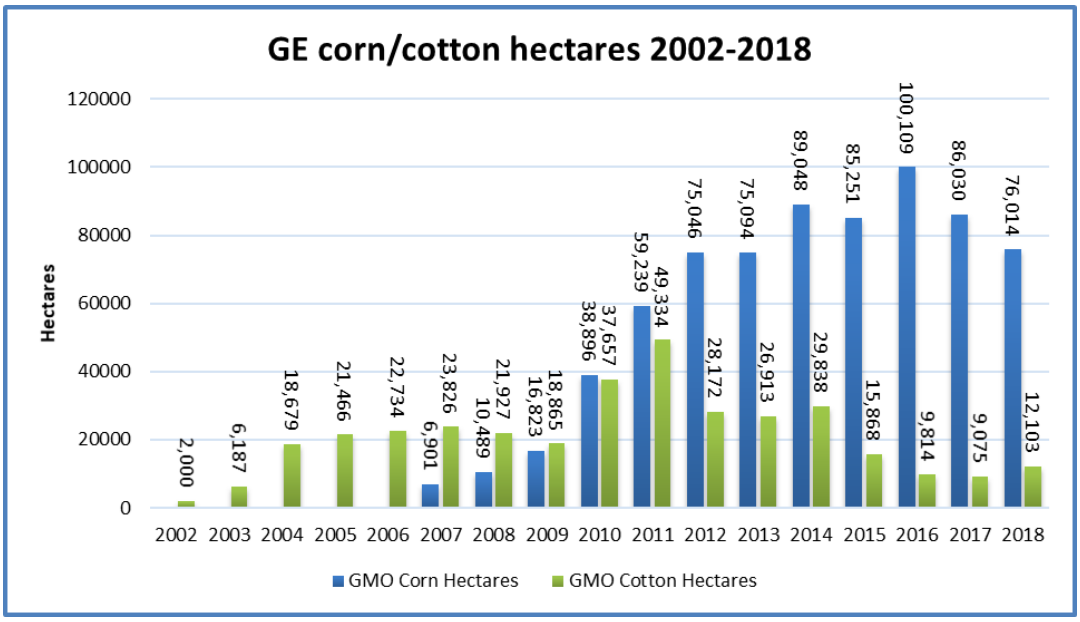
Colombia had not developed any biotechnology crops to date. However, on August 2019, the Colombian Agricultural Institute (ICA), authorized the Colombian Grain Producers Association (Fenalce) to begin commercial plantings of their recently developed corn genotype containing the TC-1507 off-patent event in the humid Caribbean region, Cauca and Magdalena river valleys, as well as in the Eastern plains and the Coffee region.
There are other 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, cassava and grass. EAFIT university is working on sacha inchi and castor bean oleic content. 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 lepidopterous insects. Colombian universities and research institutes are working together to develop rice and potato biotechnology events. 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. 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 cultivated solely for export markets. Total area planted for these ornamental crops is 12 hectares. In 2018, Colombia planted 76,014 and 12,103 hectares of GE corn and cotton, respectively. Although Colombian farmers continue to adopt GE technology , there was an overall decrease in corn plantings (GE and non-GE) as domestic corn prices are highly affected by international prices and high production costs given that imports supply 80 percent of the domestic market. In fact, GE corn planted decreased by 10,016 hectares. Regarding cotton, GE area planted increased by 3,028 hectares. Bolivar, Cundinamarca, La Guajira and Sucre resumed planting GE cotton as there is increased optimism due to favorable domestic prices (See Charts 1, 2, and 3).

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).

Chart 1



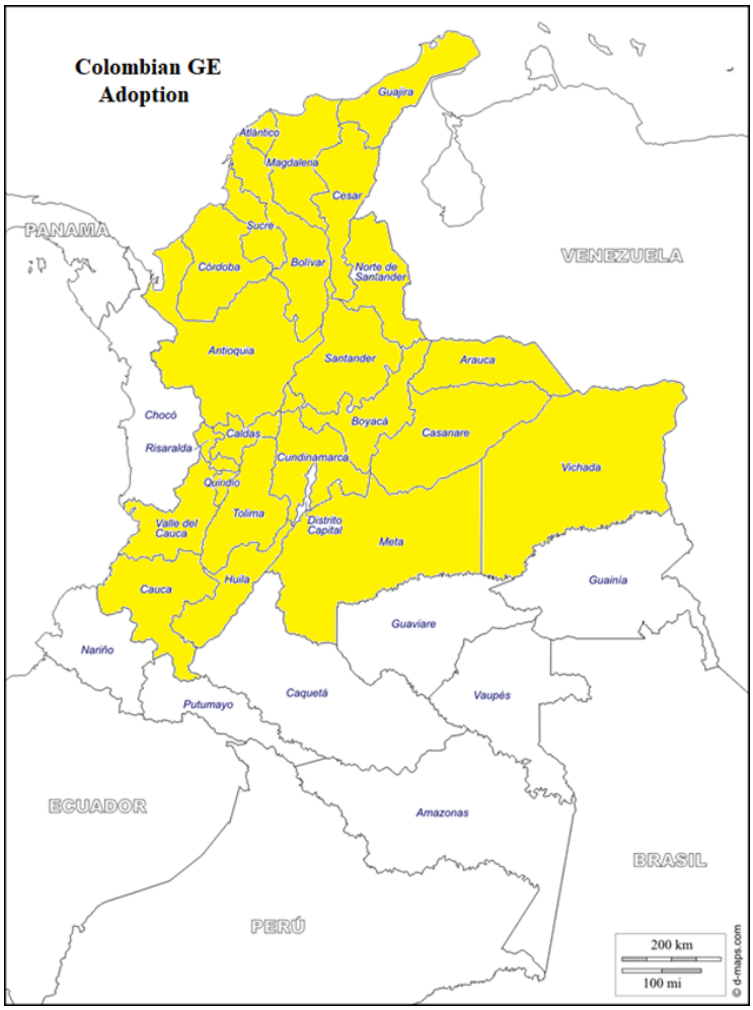
Data provided by ICA-Colombian Agricultural Institute

Chart 2

GE adoption per Department/Hectares			
Corn		Cotton	
Meta	21,150	Cordoba	5,786
Tolima	18,492	Tolima	3,600
Valle del Cauca	10,941	Guajira	795
Cordoba	10,125	Huila	718
Sucre	2,708	Cesar	513
Cesar	2,335	Valle del Cauca	506
Quindio	1,382	Sucre	93
Casanare	1,373	Bolivar	83
Magdalena	1,277	Cundinamarca	9
Risaralda	1,133		
Cauca	1,085		
Huila	898		
Cundinamarca	666		
Vichada	563		
Santander	488		
Caldas	465		
Antioquia	148		
Norte de Santander	124		
Boyaca	122		
Atlantico	109		
Bolivar	52		
Arauca	14		
Guajira	4		

Data provided by ICA-Colombian Agricultural Institute

Chart 3



Data provided by ICA-Colombian Agricultural Institute

c) Exports

Genetically engineered Dutch blue carnations are produced under greenhouse conditions for export to Europe and GE blue petal roses for export to Japan. Area planted in 2018 for both Dutch blue carnations and blue petal roses remains unchanged at 12 hectares. One blue petal rose in the Japanese retail market has an estimated value of about $40-$50.

d) Imports

Genetically engineered corn seeds are imported mostly from Brazil (1,767 tons) and Honduras (554 tons). Genetically engineered cotton seeds are imported from the Unites States (41.4 kg). Regarding crops, Colombia imported GE derived agricultural products such as corn, cotton, soybeans, soybean meal, soybean oil, and distillers' grains valued at $1.8 billion in 2018 from the United States, mainly.

e) Food Aid

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

f) Trade Barriers

Pending mandatory labeling requirements, the lack of a LLP policy, (see PART B, Section g and i, for additional information), and the recent initiative to ban GE crop seeds have the potential to destabilize Colombia's regulatory environment for GE products and to squander benefits for consumers and the agricultural sector. On September 10, 2019, a law project was submitted before Congress to amend Article 81, under the Colombian Constitution, and include a paragraph banning GE crop seed imports, exports, production and commercialization with the purpose of protecting the environment and guarantying farmers' free access to seeds. The initiative passed through first debate and it is expected to be scheduled for second debate. Pro-biotechnology stakeholders are pushing to table the proposed bill.

PART B: Policy

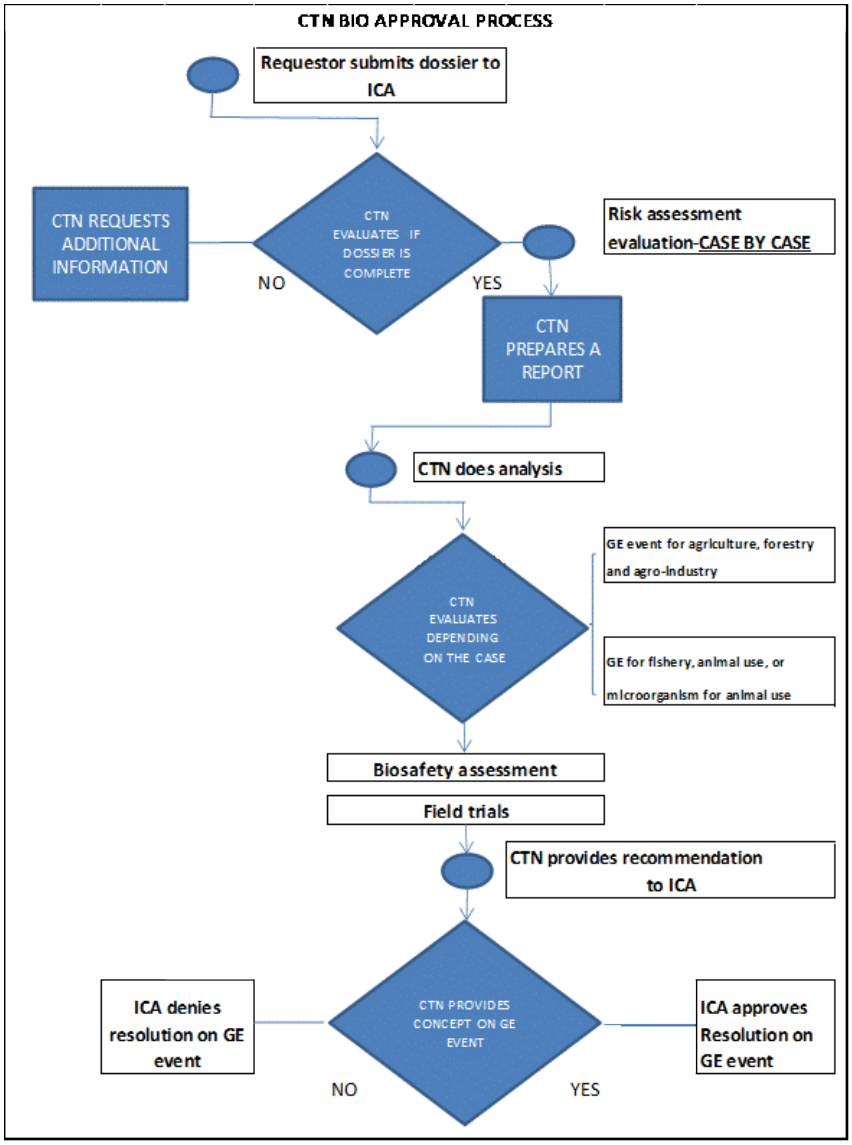
a) Regulatory Framework

The following Ministries are involved in the regulation of agricultural biotechnology production and imports:

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

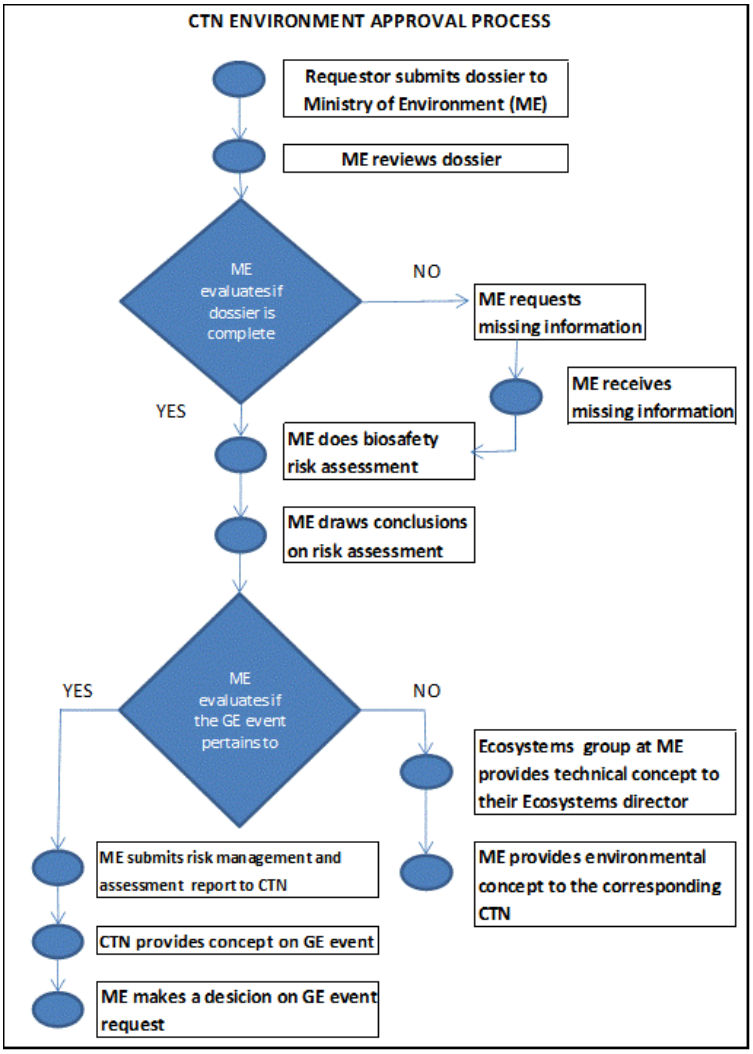
Decree 4525 of December 6, 2005, established three interagency committees composed of the above-mentioned Ministries that are responsible for biosafety issues and the evaluation and approval of biotech events. These committees are:

The National Technical Committee for Agriculture, Fishery, Forestry and Agro-industry (CTN-Bio): CTN-Bio's role is to assess GE events for non-food related GE products. 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 a 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:



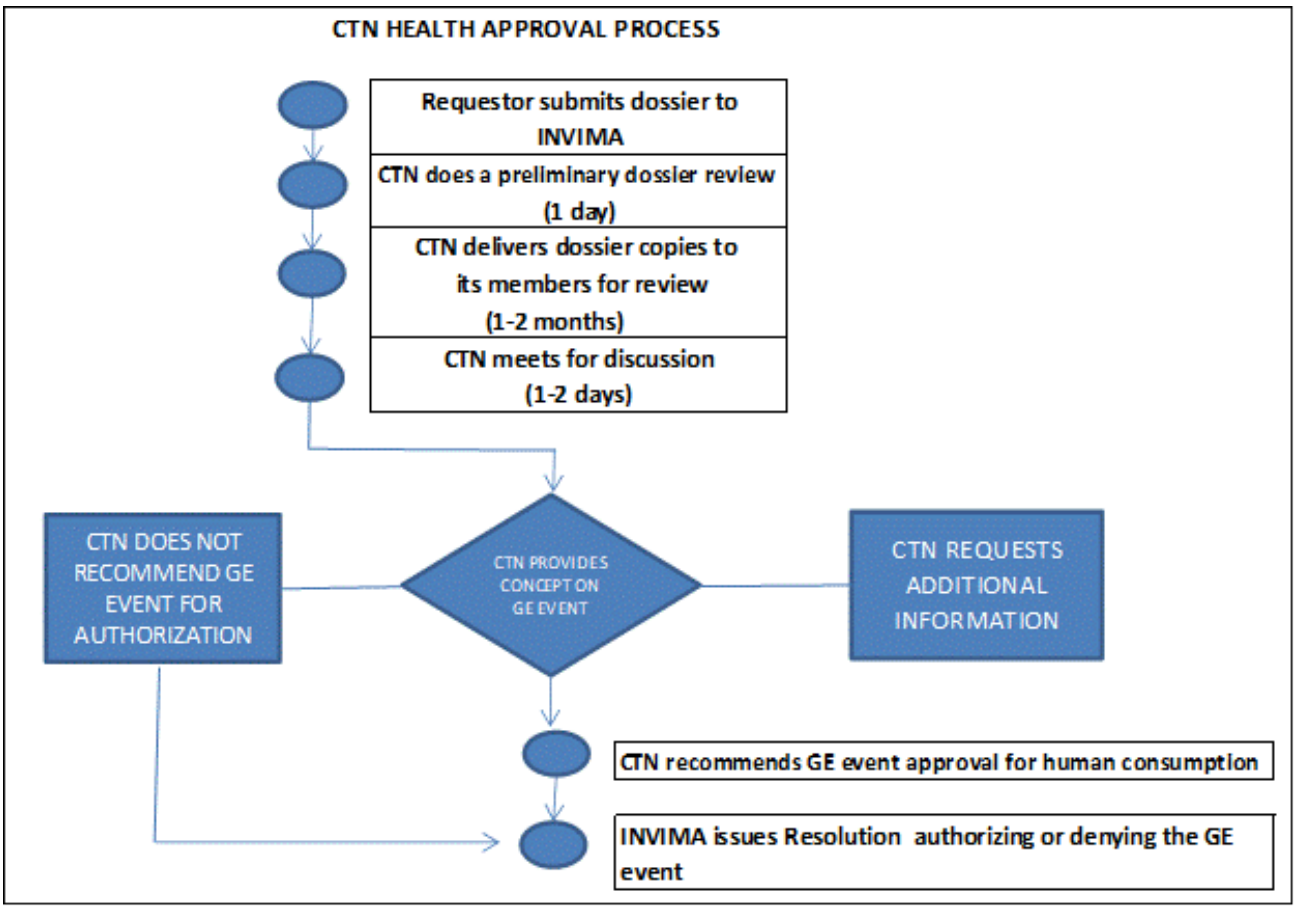
Source: BCH Colombia www.bch.org.co (July 2012)

The National Technical Committee for Environment (CTN-Environment): This committee's function is to assess GE events that may impact the environment only, which is the case of bioremediation. CTN-Environment has yet to receive any requests for review of GE events. However, in May 2010, the MEHTD issued regulatory Resolution 957 establishing procedures on the information companies must submit for evaluation and the Ministry's procedures of assessing GE events. The graph below illustrates the CTN-Environment approval process:



Source: BCH Colombia www.bch.org.co (July 2012)

The National Committee for Health and Human Nutrition (CTN-Health): CTN-Health's function is to assess the impact of GE products and by-products on human health. On February 1, 2007 the MHSP issued regulatory Resolution 227 to establish the functions of the committee. CTN-Health has submitted a number of recommendations for approval to the MHSP; however, the timeline for issuing approval regulatory resolutions has been extensive, over 1.5 years. On July 19, 2017, the MHSP issued resolution 2535, transferring the responsibility of issuing approval regulatory resolutions to INVIMA, which has started to streamline the approval procedures with more predictable timelines. The graph below illustrates the CTN-Health approval process:



Source: BCH Colombia www.bch.org.co (July 2012)

b) Approvals

All GE events for commercial cultivation and/or environmental release, food consumption and animal feed must be approved by the GOC. The approval process for GE derived feed and food materials are completed by CTN-Bio and CTN-Health, and the committees' decision timelines are not coordinated. These parallel timelines can result in internal asynchronous approvals (see appendix B). Regarding stacked events, all GE events must be approved individually and there is no official process to review "stacked" events as a whole. Regarding approval expiration, food GE events will have to be resubmitted for approval, once more, after the 10-year expiration deadline. Under current submission guidelines INVIMA has not included any additional requirements after the initial expiration renewal.

c) Stacked Events or Pyramided Event Approvals

Even though the individual events may have already been approved, the "stacked" variety must independently go through the approval process. However, starting August, 2017, the CTN-Health established an internal, yet unofficial, procedure to facilitate the approval process for stacked events when their single events have already been approved, which has reduced the current approval timeframe and alleviated asynchronous approvals between exporting and importing countries.

d) Field Testing

Colombia requires field-testing for GE crop cultivation (see appendix A) after a risk assessment is submitted to CTN-Bio for review and subsequent approval. The testing is required for each of the agro ecological regions where the event is to be planted which slows the review as Colombia has six regions.

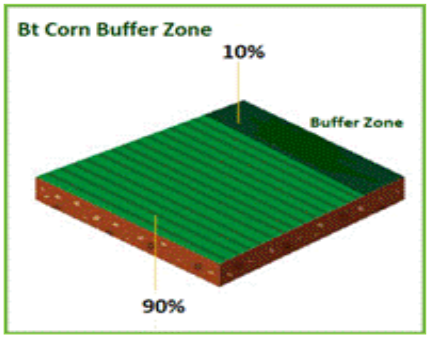
e) Innovative Biotechnologies

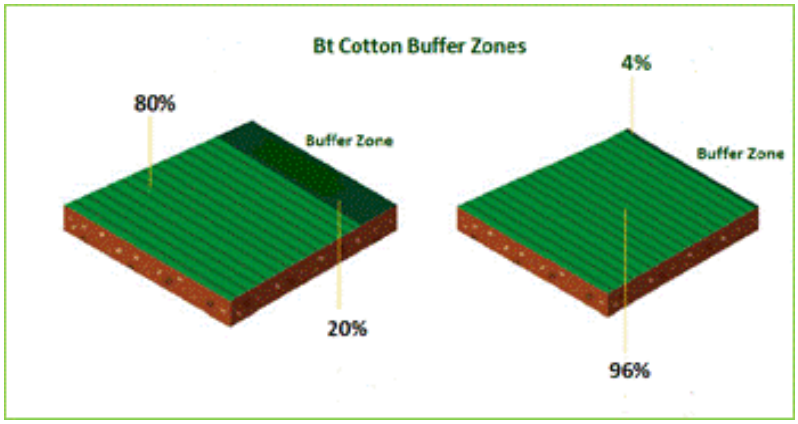
There are currently three research groups working on genome editing. The CIAT Research Center is focused on herbicide tolerant cassava, increased rice yields, viruses and bacteria resistant rice, high-zinc and iron rice, bean nutritional quality, and cacao cadmium absorption. Agrosavia is working on potato with reduced toxins and phosphorus altered rice. The EAFIT university is doing research on castor bean oleic content. Regarding regulations, ICA issued resolution 29299 to determine if the cultivar corresponds to a living modified organism or a conventional organism. The interested party submits and application to ICA for review and within a period of sixty (60) business days, if no further information is required, ICA will determine whether the new cultivar is considered GE or not and, therefore, it is within or beyond the scope of regulation for GE. If is considered to be GE, the cultivar will have to go through the existing regulatory GE framework. Otherwise, it will be treated under existing conventional crop legislation and regulation. ICA is currently reviewing two applications under current GE regulation: waxy corn modified for altered starch composition and phosphorus altered rice, with decreased phosphorus in the grains, but increased levels in the leaves.

f) Coexistence

ICA has carried out an evaluation of cross-pollination and found that both GE and non-GE crops do coexist without posing additional risks to non-GE crops. Regardless, farmers actively apply the practice of buffer zones or a natural barrier of fallow terrain in compliance with ICA resolution 682 of 2009 for cotton, which establishes a buffer zone following the 80/20 or 96/4 scheme and 2894 of 2010 for corn, which establishes a 90/10 scheme. (See Chart 4). Both resolutions also require a 300 meter (984 feet) planting distance between GE and non-GE crops.

Chart 4





Source: www.MARI.com

g) Labeling and Traceability

There is some degree of uncertainty regarding the impact that GE labeling will have on the current GE regulatory framework, and on the use of GE technology in Colombia. The MHSP issued regulatory Resolution 4254 establishing the requirements for labeling of food derived from modern biotechnology in 2012. The resolution requires labeling information for product health and safety, such as potential allergenicity. Labeling must also address the functionality of the food, as well as the identification of significant differences in the essential characteristics of the food.

In the meantime, on September 8, 2015, the Constitutional Court ruled in favor of mandatory labeling of GE organisms in response to a lawsuit attacking Consumer Law 1480, Article 24, which refers to labeling, but does not address GE labeling. According to this decision, Congress was required to draft and implement legislation on mandatory labeling of GE organisms within two years to comply with the court's ruling. Despite the two-year deadline, no final rules have been produced. However, on August 14, 2019 a law project was submitted revisiting the 2015 Constitutional Court's ruling and this has the potential to destabilize Colombia's GE labeling regulatory environment depending on how eventual mandatory labeling may be approached. As of now, GE labeling relies on Resolution 4254.

As per resolution 4254, the use of statements such as "GMO free" or "do not contain GMO" is not accepted, unless the manufacturer demonstrates and sustains that the claim is truthful and not misleading. Importers have to provide proof through laboratory results that products are GMO free, creating considerable issues due to difficulties in lab results availability as producers do not seem to have those results available for importers who, in turn, have to get a third party to test products and provide lab results. As per INVIMA communication 4000-3988-19, the requirement may be exempted only when the main ingredients are not included in the list of GE foods attached to the communication. An increased number of imported packaged products entering the Colombian market now bear the "Non GMO Project Verified" or the "Non-GMO/GE Process Verified" legends, which, as per current regulation, are perceived as equivalent to "GMO- free" claims. Therefore, manufacturer/importers must provide a supplementary label clarifying what the scope of the legend is to be able to commercialize their products as per INVIMA communication 4000-1071-18.

Regarding labeling for imported GE materials (seeds or other plant reproductive materials and animal products), ICA issued regulatory Resolution 946, stating that imported GE derived materials should be identified as "Genetically Modified Organisms" or, in Spanish, Organismo Modificado Geneticamente. This requirement is being justified under “consumer-right-to-know” principles.

h) Monitoring and Testing

In 2009, the GOC issued regulatory Resolution 682 requiring GE seed companies to adopt a life cycle stewardship approach to guide producers, specifically targeting 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. During the first semester of 2018, the Colombian Association of Agricultural Biotechnology (Agro-Bio) released MARI, an insect resistance management program to encourage producers in implementing good agricultural practices that may assist in insect resistance mitigation. Regarding testing, INVIMA is actively conducting port of entry testing at INVIMA laboratories to assess imported GE commodities destined as raw material for food and feed and the potential for asynchronous, unapproved events in shipments. To date, there have been no detections of unapproved events. As for packaged products, INVIMA is also monitoring products that have “Non GMO Project Verified,” “Non-GMO/GE Process Verified” and “Non-GMO” claims requesting importers to support claims through laboratory results to be able to commercialize them. See Part B, section g for additional information on labeling and testing.

i) Low Level Presence (LLP) Policy

Industry and commodity exporters have expressed concerns that not all GE events traded in international commerce have been approved in Colombia. This could potentially delay shipments as a result of asynchronous approvals. Considering the unpredictable and lengthy timeframe for GE approvals, the GOC initially proposed a five percent LLP threshold. Although Ministry of Health officials have indicated that they are planning to present a draft LLP policy to the Ministry of Commerce, Industry and Trade (MinCIT) and the Ministry of Agriculture for their consideration and feedback, no progress has been made. After finalizing the draft policy internally, the Ministry of Health will submit the regulatory policy for international comments for two months. The LLP threshold will only apply to food-use GE events and not for GE raw materials destined for animal feed. Once the LLP policy for food-use GE events is issued, it is expected that GOC will follow with the one for GE animal feed.

j) Additional Regulatory Requirements

There are no additional requirements at this time.

k) Intellectual Property Rights (IPR)

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 regulatory Decision 351, Common Provisions on the Protection of the Rights of Breeders of New Plant Varieties, and regulatory Decision 391, Common Regime on Access to Genetic Resources (Hodson & Carrizosa, 2007).

l) Cartagena Protocol Ratification

As a signatory (and ostensibly the host) to the CPB, Colombia approved the Biosafety Protocol through Law 740 in 2002. 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 February1, 2007; and, MEHTD resolution 957 of May 19, 2010.

m) International Treaties and Forums

Colombia plays an active role in the discussions of the Nagoya-Kuala Lumpur Protocol on redress and liability and the CPB Conference of the Parties, as a signatory. In addition, 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. In 2017, Colombia joined the Global Low Level Presence Initiative to develop international approaches to manage LLP.

n) Related Issues

On March 2017, the Minister of Agriculture presented Congress with a draft law that creates the National System for Agricultural Innovation (SNIA). SNIA calls for the establishment of a Council for Agricultural Innovation to advise on biosafety, intellectual property and genetic resource regulations as outlined in the Peace Accord signed with the Revolutionary Armed Forces of Colombia on December 2016. On December 29, 2017, Law 876 was approved and it is unknown on the impact it may have on existing and proposed biotechnology regulations.

PART C: Marketing

a) 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 have pushed for mandatory GE labeling as well as GM seed ban. See Part B, section g for additional information on labeling. See part A, section f for additional information on trade barriers.

b) Market Acceptance/Studies

Biotechnology derived commodities have been used in Colombia for 19 years. Public opinion and media coverage to date has been favorable of biotechnology and consumers have not voiced major concerns about products containing GE derived raw materials. The GOC's structure for biotechnology

regulations is science-based for approving or rejecting new biotechnology events. The basic principle of the GOC is to adopt the technologies that may help the economic/social development of rural Colombia. Of the various ministries, the MEHTD has been the most critical of biotechnology approvals. In addition, some indigenous groups have been inspired by non-governmental organizations NGOs to oppose the introduction of GE crops for cultivation and environmental release based on biodiversity concerns. As per current regulations, indigenous territories are GE-free zones.

Regarding biotechnology related studies, an IFPRI study (Zambrano et al. 2011) on the economic benefits of cultivating GE cotton for women farmers indicated that they saved both time and money. The study helped highlight the role of women as practitioners and beneficiaries of biotech cotton production. In 2016, the Colombian Association of Agricultural Biotechnology (Agro-Bio) released a study showing biotechnology as a valuable tool for farmers focusing on the benefits for GE crops in Colombia from 2003 to 2015 and the potential they may have on rural development and self-sufficient agriculture.

CHAPTER II: ANIMAL BIOTECHNOLOGY

PART D: Production and Trade

a) Product Development

According to GOC officials, there have been some research initiatives by universities on animal biotechnology. However, the high costs of this technology seem to be a key factor in discouraging more widespread adoption. Aquaculture could be a possible area for more animal biotechnology research, in addition to GE cattle, but funding will likely be the primary constraint. Regarding cloning, no developments have been identified at this time.

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). Although in 2016, overseas companies and local governments expressed interest in accessing GE insect technology to control harmful insect populations, no progress has been reported. These technologies will control the population of (1) Aedes aegypti mosquito, which is a vector for dengue, Zika, chikungunya, yellow fever and other arboviruses and (2) will also assist with crop protection, specifically with medfly, as Colombian fruit exports are being badly hurt by damage from the pest. The latter may be the one introduced first due to streamlined regulatory considerations.

e) Trade Barriers

None.

PART E: Policy

a) Regulatory Framework

The GOC regulatory framework for plant biotechnology 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 after a risk evaluation is conducted by ICA.

b) Approvals

See appendix C.

c) Innovative Biotechnologies

No developments have been identified at this time.

d) Labeling and Traceability

See Part B, section g.

e) Intellectual Property Rights (IPR)

No IPR regulations have been identified at this time.

f) International Treaties and Forums

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 point of contact on animal biotechnology issues.

g) Related Issues

None

PART F: Marketing

a), b) Public/Private Opinions/ Market Acceptance, Studies 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.

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

Crop	Requesting Company	New Characteristics of Biotechnology	Authorized Activity
Carnations ICA resolution 1219	Flores Colombianas Ltda. (Holland)	Blue Carnations	Approved in 2000 for commercial production of carnations for exports only (greenhouse 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 (greenhouse conditions).
Carnations ICA resolution 231 ICA resolution 3569	Suntory Holdings Limited	Blue Carnations	Approved for commercial production of cut flowers for exports only (greenhouse conditions).
Roses ICA resolution 3857 ICA resolution 3786	International Flower Development (Holland)	Blue Petal Roses	Approved in 2009 for commercial production of cut flowers for exports only (greenhouse conditions).
Chrysanthemum ICA resolution 3785	International Flower Development	Blue Chrysanthemum	Approved for experimental plantings in 2009 (greenhouse conditions).
Chrysanthemum ICA resolution 3570	Suntory Holdings Limited	Blue Chrysanthemum	Approved in 2012 for commercial production of cut flowers for exports only (greenhouse conditions).
Gypsophila	Imaginature Limited	Blue Gypsophila	Approved in 2016 for commercial production of cut flowers.

ICA resolution 7169			
LLCotton25 ICA resolution 1037 ICA resolution 1259 ICA resolution 2403 ICA resolution 4137	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. Approved in 2014 for commercial plantings in the dry 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	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects and tolerant to	Approved in 2005 for biosafety assessments in the dry Caribbean and humid Caribbean regions, the upper Magdalena river valley (Tolima and Huila),

ICA resolution 358 ICA resolution 3852 ICA resolution 2204		Roundup herbicide.	Cauca river 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 x Roundup Ready Flex Cotton- MON 531XMON 88913 ICA resolution 1726	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects and completely tolerant to Roundup herbicide.	Approved in 2007 for commercial plantings.
Bollgard II and Roundup Ready Flex Cotton- MON 15985XMON 88913 ICA resolution 30193	Bayer CropScience	Resistant to a wider variety of lepidopterous insects and 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.
Bollgard II and Roundup Ready Flex Cotton- MON	CORPOICA	Resistant to a wider variety of lepidopterous insects and tolerant to	Approved in 2018 for commercial plantings in the dry and humid Caribbean regions, Cauca river valley, upper Magdalena river

15985XMON 88913		Roundup herbicide.	valley 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 ICA resolution 4133 ICA resolution 3053	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. Approved in 2014 for commercial plantings in the dry and humid Caribbean regions.
Glytol and Twilink cotton ICA resolution 4304 ICA resolution 18599 ICA resolution 30336	Bayer Cropscience		Approved in 2014, 2016, and 2018 for commercial plantings.
Glytol x Twinlink x COT102 cotton ICA resolution 3924	Bayer Cropscience		Approved in 2016 for biosafety field trials.
COT102 cotton ICA resolution 369	Bayer Cropscience		Approved in 2015 for biosafety field trials.
Rice	CIAT (Colombia)	Tolerant to draught.	Approved in 2010 for field trials in Villavicencio, Meta

ICA resolution 4041			
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	Corporacion de Investigaciones Biologicas (CIB) (Colombia)	Resistant to Tecia solanivora).	Approved for field trials in Rio Negro, Antioquia in 2010.

ICA resolution 4469 ICA resolution 1628 ICA resolution 4040			
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.
	Dupont (United States)	Resistant to some lepidopterous insects.	Approved in 2008 for controlled plantings in the dry and humid, Caribbean and the Coffee

Yieldgard Corn ICA resolution 3742 ICA resolution 646			region.
Yieldgard 2 Corn	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide.	Risk assessment since 2005.
Yieldgard VTPro 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.
Yieldgard VT3Pro Corn 4008 ICA resolution 881	COACOL-Monsanto (United States)	Resistant to a wider variety of lepidopterous insects.	Approved in 2016 for controlled plantings 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	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

ICA resolution 3739 ICA resolution 1680			plantings in the humid Caribbean region, upper Magdalena river, Cauca river valley and eastern plains.
Yieldgard VTPro 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.
Bt11 X MIR 162 x MON 89034 X GA21 ICA resolution 19507	Syngenta(Switzerland)	Resistant to multiple insects and tolerant to Roundup and glufosinate herbicides.	Approved in 2018 for controlled plantings in the humid Caribbean region, upper Magdalena river, Cauca river valley and eastern plains.
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	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

ICA resolution 3853 ICA resolution 3741 ICA resolution 3575 ICA resolution 464 ICA resolution 3351			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 Ready corn ICA resolution 3738	Dow AgroSciences de Colombia S.A.	Resistant to some lepidopterous insects and tolerant to Roundup herbicide.	Approved in 2008 for controlled plantings in the coffee region, the humid Caribbean region, the upper Magdalena river.
Bt 11 corn	Syngenta (Switzerland)	Resistant to some	Approved for biosafety assessments in 2005 in the

ICA resolution 3848 ICA resolution 1679 ICA resolution 3787		lepidopterous insects.	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 ICA resolution 10492	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.
MON 89034-3 x MON 00603-6 corn ICA resolution 10492	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide, resistant to some lepidopterous insects.	Approved on 08/23/2016 for controlled plantings in the dry Caribbean region.

MIR162 (SYN-IR162-4) Corn ICA resolution 1257 ICA resolution 3574 ICA resolution 425 ICA resolution 426	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. 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 89034x TC	Dow AgroSciences de		Approved for controlled planting

1507xNK603 corn ICA resolution 3049	Colombia S.A.		in 2013.
MON 810 x TC 1507x MIR 162 x NK603 corn ICA resolution 4005	Dupont (United States)		Approved for commercial plantings in 2016.
BT11 X MIR 162 X MIR 604 X TC 1507 X SYN 5307 X GA 21 corn ICA resolution 4134			Approved for biosafety trials.
MZHG0JG corn ICA resolution 19220	Syngenta		Approved in 2018 for controlled plantings in the dry and humid Caribbean regions, Magdalena river valley, and Orinoquia.
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.
Liberty link soybean A5547-127			Approved in 2014 for biosafety field trials.

ICA resolution 4136			
FG 72 X A5547 soybean ICA resolution 18601	Bayer Cropscience		Approved in 2016 for biosafety field trials.
FG 72 soybean ICA resolution 3999	Bayer Cropscience		Approved in 2016 for biosafety field trials.

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

Crop	**Requesting Company**	**New Characteristics of Biotechnology**	**Approved Applications**	**Approval Date**
Bollgard cotton-MON 531 SEABA ACT III ICA resolution 2708	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects,	Raw material for food and feed.	Approved for food and feed in 2003.
Roundup Ready cotton-MON 1445 SEABA ACT V ICA resolution 1063	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Raw material for food and feed.	Approved for food in 2003. Approved for feed in 2004.
Bollgard II cotton-MON 15985 MSP resolution 4587 ICA resolution 310	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects.	Raw material for feed and food.	Approved for food in 2009. Approved for feed in 2008.
Roundup Ready Flex cotton-MON 88913	COACOL-Monsanto (United	Tolerant to Roundup herbicide and to a wider	Raw material for feed and food.	Approved for food in 2009.

MSP resolution 4582 ICA resolution 311	States)	spectrum of weeds.		Approved for feed in 2008.
LL Cotton 25 ICA resolution 307 MSP resolution 1731	Bayer CropScience	Tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for feed in 2008. Approved for food in 2016.
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 in 2010. Approved for feed in 2007.
MON 88701 X MON 88913 MSP resolution 3005 ICA resolution 18590	COACOL-Monsanto (United States)		Raw material for food and feed.	Approved for food and feed in 2016.
GHB 614 Glytol cotton ICA resolution 3567 MSP resolution 506	Bayer CropScience	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2012. Approved for food in 2016.
GHB 614 Glytol X Liberty Link cotton ICA resolution 3568 MSP resolution 1454	Bayer CropScience	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2012. Approved for food in 2017.
GHB 614 Glytol x T304 X GHB119 X COT 102 MSP resolution 1453	Bayer CropScience	Tolerant to herbicide.	Raw material for food.	Approved for food in 2017.
Bollgard+Roundup Ready cotton-MON 531XMON 1445	COACOL-Monsanto	Resistant to some	Raw material for food and feed.	Approved for food in

MSP resolution 2179 ICA resolution 2943	(United States)	lepidopterous insects and tolerant to Roundup herbicide.		2008. Approved for feed in 2007.
COT 102 cotton ICA resolution 4131 MSP resolution 128	Syngenta	Resistant to some lepidopterous insects.	Raw material for feed and food.	Approved for feed in 2014. Approved for food in 2016.
DAS 24236-5 cotton ICA resolution 2660 MSP resolution 4007	Dow Agrosciences		Raw material for feed and food.	Approved for feed in 2015. Approved for food in 2016.
DAS 21023-5 cotton ICA resolution 2664 MSP resolution 5853	Dow Agrosciences		Raw material for feed and food.	Approved for feed in 2015. Approved for food in 2016.
DAS 21023-5XDAS 24236 X SYN 102 X MON 88913 X DAS 81910 cotton ICA resolution 11243 INVIMA resolution 2018027771	Dow Agrosciences		Raw material for feed and food.	Approved for feed in 2017. Approved for food in 2018.
DAS 81910 cotton ICA resolution 20952	Dow Agrosciences		Raw material for feed.	Approved for feed in 2016.
Glytol x Twinlink x COT102 cotton ICA resolution 3922	Bayer		Raw material for feed.	Approved for feed in 2015.
Glytol x Twinlink	Bayer		Raw material for	Approved for food in

MSP resolution 1452			food.	2017.
T 304-40 cotton MSP resolution 505 ICA resolution 5400	Bayer		Raw material for food and feed.	Approved for food in 2016. Approved for feed in 2017.
MON 88701 cotton MSP resolution 132 ICA resolution 4009	COACOL-Monsanto (United States)		Raw material for food and feed.	Approved for food and feed in 2016.
LL cotton25 MSP resolution 1731	Bayer		Raw material for food.	Approved for food in 2016.
DAS 80910 MSP resolution 5852	Dow Agrosciences		Raw material for food.	Approved for food in 2016.
GHB 119 cotton MSP resolution 3298 ICA resolution 19228	Bayer		Raw material for food and feed.	Approved for food in 2016. Approved for feed in 2018.
GHB 119 X GHB 614 cotton ICA resolution 11236	Bayer		Raw material for feed.	Approved for food in 2017.
COT 102 x MON15985 X MON88701X MON 88913 MSP resolution 4905	COACOL-Monsanto (United States)		Raw material for food.	Approved for food in 2016.

COT 102 x MON15985 X MON88701 X MON88913 ICA resolution 18593	COACOL-Monsanto (United States)		Raw material for feed.	Approved for feed in 2016.
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 in 2007. Approved for food in 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 for food and feed in 2006.
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.	Approved for food in 2003. Approved for feed in 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 in 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 in 2010. Approved for food in 2011.
Yieldgard+Lysine corn-MON 810X LY 038	COACOL-Monsanto (United	Resistant to some lepidopterous insects. High	Raw material for feed.	Pending for food approval as the

	States)	lysine content.		request was withdrawn.
Yieldgard VTPro -MON 89034 corn 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 in 2010. Approved for feed in 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 and feed in 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 in 2011. Approved for food in 2010.
CCR corn-MON 88017 MSP resolution 1712 ICA resolution 1254	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide.	Raw material for food and feed.	Approved for food in 2011. Approved for feed in 2010.
Yieldgard+CCR corn-MON 810X MON 88017 MSP resolution 1904 ICA resolution 3667	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects, rootworm and tolerant to Roundup herbicide.	Raw material for food and feed.	Approved for food and feed in 2011.

Lysine corn-LY p38 MSP resolution 4585 ICA resolution 2405	COACOL-Monsanto (United States)	High lysine content.	Raw material for food and feed.	Approved for food in 2009. Approved for feed in 2010.
Bt 11 corn MSP resolution 1078 ICA resolution 309 INVIMA resolution 2019040929	Syngenta (Switzerland)	Resistant to some lepidopterous insects.	Raw material for food and feed.	Approved for food in 2009 and 2019. Approved for feed in 2008.
GA 21 corn ICA resolution 2402 MSP resolution 1692	Syngenta (Switzerland)	Tolerant to Roundup herbicide	Raw material for feed and food.	Approved for food in 2012. Approved for feed in 2010.
Bt 11 X GA 21 corn ICA resolution 4474 MSP resolution 1695	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for feed in 2010. Approved for food in 2012.
Bt 11 X TC 1507 X GA 21 corn ICA resolution 19222 INVIMA resolution 2018027787	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for food and feed in 2018.
Smartstax corn -Mon 89034 X TC1507 X MON 88017 X DAS59122-7 MSP resolution 2393 ICA resolution 3662	COACOL-Monsanto (United States) and Dow Agrosciences	Resistant to some lepidopterous insects, to root worm and tolerant to Roundup herbicide and to	Raw material for food and feed.	Approved for food in 2010. Approved for feed in 2011.

		glufosinate.		
MIR 162 corn ICA resolution 4471 MSP resolution 1693	Syngenta (Switzerland)	Resistant to some lepidopterous insects.	Raw material for feed and food.	Approved for food in 2012. Approved for feed in 2010.
BT 11xMIR 162xGA21 corn ICA resolution 2407 MSP resolution 1694	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to herbicides.	Raw material for feed and food.	Approved for feed in 2010. Approved for food in 2012.
MON 87460 corn MSP resolution 1709 ICA resolution 224	COACOL-Monsanto (United States)	Tolerant to drought.	Raw material for food and feed.	Approved for food in 2011. Approved for feed in 2012
MON 87460 X NK 603 corn ICA resolution 422 MSP resolution 777 INVIMA resolution 2019031454	COACOL-Monsanto (United States)	Tolerant to drought and herbicides.	Raw material for feed and food.	Approved for feed and food in 2014 and 2019.
MON 87460 X MON 89034 X MON 88017 corn ICA resolution 423 MSP resolution 778 INVIMA resolution 2019031455	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects, tolerant to herbicides and drought.	Raw material for feed and food.	Approved for feed and food in 2014 and 2019
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 in 2010. Approved for food in

				2011.
BT 11 X MIR 162X MIR 604X GA 21 corn MSP resolution 119 ICA resolution 232	Syngenta (Switzerland)	Root worm resistant and tolerant to herbicides.	Raw material for food and feed.	Approved for feed and food in 2012.
MIR 604 corn MSP resolution 118 ICA resolution 229	Syngenta (Switzerland)	Root worm resistant.	Raw material for food and feed.	Approved for feed and food in 2012.
MIR 604 X GA 21 corn ICA resolution 230 MSP resolution 769	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for feed and feed.	Approved for feed in 2012. Approved for food in 2014.
BT 11XMIR 604X GA 21 corn ICA resolution 3046 MSP resolution 775 INVIMA resolution 2019040928	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2012. Approved for food in 2014 and 2019.
BT11XMIR 604X TC1507X5307XGA 21 corn ICA resolution 18583	Syngenta (Switzerland)	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for feed.	Approved for feed in 2016.
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 in 2012. Approved for feed in 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 in 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 and food in 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 feed and food in 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 feed and food in 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 feed and food in 2012.
TC 1507X MON 810 X MIR 604 X NK 603 corn MSP resolution 5856 ICA resolution 11244	Dupont	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for food and feed.	Approved for food in 2016. Approved for feed in 2018.

TC 1507X MIR 604 X NK 603 corn ICA resolution 19227 INVIMA resolution 2018027808	Dupont	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for feed and food.	Approved for feed and food in 2018.
TC 1507X MON 810 X MIR 162X NK 603 corn MSP resolution 3118	Dupont	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for food.	Approved for food in 2015.
MON 89034 X DAS 1507X NK 603 corn ICA resolution 3050 MSP resolution 1861	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2013. Approved for food in 2014.
BT11 X MIR604 corn MSP resolution 120 ICA resolution 3048	Syngenta	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2013. Approved for food in 2012.
BT11 X MIR162 corn MSP resolution 249 ICA resolution 18585	Syngenta	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2016.
SYN E3272-5 corn ICA resolution 3043 MSP resolution 127	Syngenta	Modified amylase for ethanol production.	Raw material for feed and food.	Approved for feed in 2013. Approved for food in 2016.
SYN E5307-1 corn	Syngenta		Raw material for feed and food.	Approved for feed in

MSP resolution 5632				2013. Approved for food in 2014.
DAS 40278-9 corn ICA resolution 3052 MSP resolution 774 INVIMA resolution 2019040915	Dow Agroscience	Herbicide tolerant.	Raw material for feed and food.	Approved for feed in 2013. Approved for food in 2014 and 2019.
MON 87427 X MON 89034 X MON 88017 corn MSP resolution 3488 ICA resolution 3047	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2014.
MON 87427 X MON 89034 X NK 603 corn MSP resolution 3705 ICA resolution 3048	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2014.
MON 87427 X MON 89034 X TC 1507 X MON 88017 X DAS 59122 corn MSP resolution 3489 ICA resolution 3043	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2014.
DAS-40278-9 X NK 603 corn MSP resolution 3487 ICA resolution 3044	Dow Agrosciences	Resistant to some lepidopterous insects and tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2014.
MON 87427 corn	COACOL-Monsanto (United	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed and food

ICA resolution 424 MSP resolution 1862 INVIMA resolution 2019040926	States)			in 2014 and 2019.
MON 87460 X MON 89034 X NK 603 corn ICA resolution 427 MSP resolution 776	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to herbicides.	Raw material for feed and food.	Approved for food and feed in 2014.
MON 89034 X TC 1507 X NK 603 X DAS 40278-9 corn ICA resolution 4135 MSP resolution 4904	Dow Agrosciences	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2014. Approved for food in 2016.
MON 89034 X TC 1507 X NK 603 X MIR 162 corn INVIMA resolution 2018027772 ICA resolution	Dow Agrosciences	Tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2018.
TC 1507 X MON 810 X MIR 162 X NK 603 corn ICA resolution 002	Dupont (United States)	Resistant to some lepidopterous insects and tolerant to herbicides.	Raw material for feed.	Approved for feed in 2015.
MON 89034 X TC 1507 X MIR 162 X NK 603 X DAS40278 corn ICA resolution 30339 INVIMA resolution 2018027773	Dow Agrosciences	Resistant to some lepidopterous insects and tolerant to herbicides.	Raw material for feed and food.	Approved for feed and food in 2018.

TC 1507 X MON 810 X MIR 162 corn ICA resolution 4006	Dupont (United States)	Resistant to some lepidopterous insects and tolerant to herbicides.	Raw material for feed.	Approved for feed in 2016.
DP 4114 corn MSP resolution 123 ICA resolution 4004	Dupont (United States)		Raw material for food and feed.	Approved for food and feed in 2016.
DP 4114 x MON 810 x MIR 604 X NK 603 corn MSP resolution 3297 ICA resolution 4936	Dupont (United States)		Raw material for food and feed.	Approved for food in 2016.
TC 1507 x 59122 X MON 810 x MIR 604 X NK 603 corn MSP resolution 5857 ICA resolution 11242	Dupont (United States)		Raw material for food and feed.	Approved for food in 2016. Approved for feed in 2018.
TC 1507 x 59122 X MON 810 X NK 603 corn ICA resolution 19226 INVIMA resolution 2018027809	Dupont (United States)		Raw material for feed and food.	Approved for feed and food in 2018.
BT11xMIR162xTC1507xGA21 corn MSP resolution 124	Syngenta		Raw material for food and feed.	Approved for food and feed in 2016.

ICA resolution 4003				
BT11XDAS59122XMIR604XTC1507xGA21 corn MSP resolution 126 ICA resolution 4002	Syngenta		Raw material for food and feed.	Approved for food and feed in 2016.
TC1507XDAS59122 corn ICA resolution 19225 INVIMA resolution 2018027807	Dupont		Raw material for feed and food.	Approved for feed and food in 2018.
DAS59122 x NK603 corn INVIMA resolution 2018027810	Dupont		Raw material for food.	Approved for food in 2018.
TC1507XNK603 corn ICA resolution 19224	Dupont		Raw material for feed.	Approved for feed in 2018.
BT11xMIR162XMIR604XTC1507XSYN5307x GA21 corn MSP resolution 129	Syngenta		Raw material for food.	Approved for food in 2016.
BT11xMIR162XMIR604XMON89034XSYN5307X GA21 corn ICA resolution 25845 INVIMA resolution 2018027803	Syngenta		Raw material for feed and food.	Approved for feed and food in 2018.
BT11xMIR162XMON89034XGA21 corn ICA resolution 19223 INVIMA resolution 2018027795	Syngenta		Raw material for feed and food.	Approved for feed and food in 2018.

MIR604XTC1507XMON810 corn MSP resolution 130	Dupont		Raw material for food.	Approved for food in 2016.
SYN3272XBT11XMIR604XGA21 corn MSP resolution 2463	Syngenta		Raw material for food.	Approved for food in 2016.
SYN3272XBT11XMIR604XTC1507X5307XGA21 corn MSP resolution 3700 289	Syngenta		Raw material for feed.	Approved for feed in 2017.
BT11XMIR162XMON89034 Corn ICA resolution 25844 INVIMA resolution 2018027798	Syngenta		Raw material for feed and food.	Approved for feed and food in 2018.
MON 87419 corn INVIMA resolution 2018040210 ICA resolution 30337	COACOL-Monsanto (United States)		Raw material for food and feed.	Approved for food and feed in 2018.
MON 87411 corn MSP resolution 5850 ICA resolution 18592	Syngenta		Raw material for food and feed.	Approved for food and feed in 2016.
MIR162XMON89034 Corn ICA resolution 25840 INVIMA resolution 2018027786	COACOL-Monsanto (United States)		Raw material for feed and food.	Approved for feed and food in 2018.
MON 87427 X MON 89034 X MIR 162 X NK 603 corn MSP resolution 250 ICA resolution 3701	Syngenta		Raw material for food and feed.	Approved for food and feed in 2017.
MON 87427 X MON 89034 X TC 1507 X	COACOL-Monsanto		Raw material for	Approved for feed

MON87411 X DAS 59122 corn ICA resolution 25841 INVIMA resolution 2018027783	(United States)		feed and food.	and food in 2018.
MON 87427 X MON 89034 X TC 1507 X MON87411 X DAS 59122 X MON 87419 corn ICA resolution 13024 INVIMA resolution 2019040927	COACOL-Monsanto (United States)		Raw material for feed and food.	Approved for feed and food in 2019.
MON 87427 X MON 89034 X MON87419 X NK 603 corn INVIMA resolution 2019040930	COACOL-Monsanto (United States)		Raw material for food.	Approved for food in 2019.
MON 89034 X TC 1507 X MON87411 X DAS 59122 X DAS 40278 corn INVIMA resolution 2018027774	Dow Agrosciences		Raw material for food.	Approved for food in 2018.
MON 87427 X MON 89034 X DAS 1507 X MON87411 X DAS 59122 X DAS 40278 corn INVIMA resolution 2018027775	Dow Agrosciences		Raw material for food.	Approved for food in 2018.
MON 87427 X MON 89034 X MIR162 X MON87411 corn ICA resolution 19218 INVIMA resolution 2018027780	COACOL-Monsanto (United States)		Raw material for feed and food.	Approved for feed and food in 2018.
MON 87427 X MON 87460 X MON 89034 X TC 1507 X MON 87411 X DAS 59122 corn ICA resolution 25843 INVIMA resolution 20185027785	COACOL-Monsanto (United States)		Raw material for feed and food.	Approved for feed and food in 2018.
MZHG0JG corn ICA resolution 19221 INVIMA resolution 2018027790	Syngenta		Raw material for feed and food.	Approved for feed and food in 2018.
MZIR098 corn ICA resolution 30332 INVIMA resolution 2019015592	Syngenta		Raw material for feed and food.	Approved for feed in 2018. Approved for food in

				2019.
MON 89034 X TC 1507 X MON 88017 X DAS 59122 X DAS 40278 corn MSP resolution 4903	Dow Agroscience		Raw material for food.	Approved for food in 2016.
GA21 X T25 corn MSP resolution 5849 ICA resolution18582	Syngenta		Raw material for food and feed.	Approved for food and feed in 2016.
Roundup Ready wheat *1-MON 71800 SEABA ACT II	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Raw material for food.	Approved for food in 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 in 2005. Approved for feed in 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 food and feed in 2010.
GAT Soybeans- DP 356043 MSP resolution 2392 ICA resolution 2406	Dupont (United States	Tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2010.
MON 87701X MON 89788 soybeans	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects and tolerant to	Raw material for food and feed.	Approved for food in 2012. Approved

MSP resolution 116 ICA resolution 3663		Roundup herbicide		for feed in 2011.
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 in 2012. Approved for feed in 2011.
MON 87705 soybean ICA resolution 3566 MSP resolution 338 INVIMA resolution 2019031452	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for feed in 2012. Approved for food in 2014 and 2019.
MON 87701 soybean INVIMA resolution 2019030764	COACOL-Monsanto (United States)	Resistant to some lepidopterous insects	Raw material for food.	Approved for food in 2019.
MON 87769 soybean ICA resolution 3565 MSP resolution 339 INVIMA resolution 2019031453	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for feed in 2012. Approved for food in 2014 and 2019.
A5547 soybean ICA resolution 3564 MSP resolution 3486	Bayer CropScience	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2012. Approved for food in 2014.
A2704 soybean ICA resolution 3579	Bayer CropScience	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2012. Approved for food in

MSP resolution 4083				2014.
DAS68416-4 soybean ICA resolution 3051 MSP resolution 131	Dow Agroscience	Tolernant to herbicide.	Raw material for feed and food.	Approved for feed in 2013. Approved for food in 2016.
MON 87708 X MON 89788 soybean ICA resolution 420 MSP resolution 1257	Monsanto	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2014. Approved for food in 2015.
MON 87708 X MON 89788 X A5547 soybean ICA resolution 30333 INVIMA resolution 2018027784	Monsanto	Tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2018.
MON 87708 soybean MSP resolution 1259	COACOL-Monsanto (United States)	Tolerant to herbicide.	Raw material for food.	Approved for food in 2015.
MON 87705 X MON 89788 soybean ICA resolution 131 MSP resolution 1258	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for feed and food in 2015.
MON 87705 X MON 89788 X MON 87708 soybean ICA resolution 19219 INVIMA resolution 2018027782	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for feed and food in 2018.
MON 87751 X MON 87708 X MON 87701 X MON89788 soybean	COACOL-Monsanto	Tolerant to Roundup	Raw material for feed and food.	Approved for feed in

ICA resolution 30333 INVIMA resolution 2019030763	(United States)	herbicide.		2018. Approved for food in 2019.
MON 87769 X MON 89788 soybean ICA resolution 132 MSP resolution 1256	COACOL-Monsanto (United States)	Tolerant to Roundup herbicide.	Raw material for feed and food.	Approved for feed and food in 2015.
DAS 44406 soybean ICA resolution 134 MSP resolution 125	Dow Agroscience	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2015. Approved for food in 2016.
DAS 68416-4 x MON 89788-1 soybean ICA resolution 2665 MSP resolution 3006	Dow Agroscience	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2015. Approved for food in 2016.
ACS-GM006-4 soybean MSP resolution 3486	Bayer CropScience (United States)	Tolerant to herbicide.	Raw material for food.	Approved for food in 2014.
ACS-GM005-3 soybean MSP resolution 4083	Bayer CropScience (United States)	Tolerant to herbicide.	Raw material for food.	Approved for food in 2014.
SYHT0H2 soybean ICA resolution 2661 MSP resolution 307	Syngenta and Bayer		Raw material for feed and food.	Approved for feed in 2015. Approved for food in 2017.
FG72(MST-FG072-2) soybean	Bayer		Raw material for food and feed.	Approved for food and feed

ICA resolution 4001 MHS resolution 2464				in 2016.
DAS-68416XMON89788 soybean MSP resolution 5851	Dow Agroscience		Raw material for feed and food.	Approved for feed and food in 2016.
FG72 x A5547-27 soybean ICAresolution 18597 MSP resolution 5854	Bayer		Raw material for food and feed.	Approved for food and feed in 2016.
DP 305423 soybean MSP resolution 5855 ICA resolution 18588	Dupont		Raw material for food and feed.	Approved for food and feed in 2016.
DP 305423 X MON 040326 soybean MSP resolution 702 ICA resolution 18586	Dupont		Raw material for food and feed.	Approved for food in 2017. Approved for feed in 2016.
DAS 81419 X DAS 44406 soybean ICA resolution 18595 INVIMA resolution 2018027770	Dupont		Raw material for feed and food.	Approved for feed in 2017. Approved for food in 2018.
DAS 81419 soybean ICA resolution 3998	Dow Agrosciences		Raw material for feed.	Approved for feed in 2016.
MON 87751 soybean	COACOL-Monsanto (United		Raw material for food and feed.	Approved for food in

MSP resolution 251 ICA resolution25838	States)			2017. Approved for feed in 2018.
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 for food in 2005. Approved for feed in 2010.
Liberty-link rice LLRice62 MSP resolution 5333 ICA resolution 308	Bayer CropScience (United States)	Tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2008.
LLRice601 MSP resolution 3674	Bayer CropScience (United States)	Tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2008.
MON 88302-9 canola ICA resolution 421 MSP resolution 5806	COACOL-Monsanto (United States)	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed and food in 2014.
RF3 canola MSP resolution 1607 ICA resolution 11239	Bayer	Tolerant to herbicide.	Raw material for food and feed.	Approved for food and feed in 2017.
MS8 canola ICA resolution 11294 INVIMA resolution 2018027776	Bayer	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2017. Approved for food in

				2018.
MON88302XRF3 canola ICA resolution 11240 INVIMA resolution 2018027779	Bayer	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2017. Approved for food in 2018.
MS8XMON88302XRF3 canola ICA resolution 11246 INVIMA resolution 2018027777	Bayer	Tolerant to herbicide.	Raw material for feed and food.	Approved for feed in 2017. Approved for food in 2018.
Mice 3XTg AD MSP resolution 2836	Universidad de Antioquia		Controlled health research.	Approved in 2008.
Mice ApoE-/- 6 Apoe "knock out" MSP resolution 2835	Universidad de Antioquia		Controlled health research.	Approved in 2008.
Mice INVIMA resolution 2019030765	Science, Biotechnology and Health Innovation Institute		Immunosuppressed mice	Approved in 2019

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

Description	**Requesting Company**	**Species**	**Approved Applications**	**Approval Date**
Small pox vaccine-Vectomune FP-LT ICA resolution 3739	Vetiplus Ltda	Poultry	Small pox	2006
Small pox vaccine-	Vetiplus Ltda	Poultry	Small pox	2007

Vectomune FP-MG ICA resolution 561				
Vaxxitek HVT+IBD ICA resolution 2946	Carval de Colombia	Poultry	Marek and bursal disease.	2007
Newxxitek HVT+ND vaccine ICA resolution 11238	Carval de Colombia	Poultry	Marek disease and Newcastle disease.	2017
Innovax ND-SB Virus Serotypes 2 and 3. Poultry recombinant vaccine ICA resolution 1250	Intervet Colombia Ltda	Poultry	Marek disease and Newcastle disease.	2010
Poultry Anigen AIV Ab Elisa Kit ICA Resolution 1251	Annar DiagnostICA Import S.A.S	Poultry	Avian Influenza	2010
Poulvac E. Coli poultry inactivated subunit vaccine ICA resolution 1252	Wyeth Inc	Poultry	Avian Colibacillosis	2010
Innovax ILT poultry recombinant vaccine ICA resolution 1253	Intervet Colombia Ltda	Poultry	Marek’s disease and Laryngotracheitis.	2010

Poultry recombinant vaccine ICA resolution 2399	Vetiplus S.A.	Poultry	Marek and Gumboro disease.	2010
Poultry recombinant vaccine ICA resolution 2400	Vetiplus S.A.	Poultry	Marek and Newcastle disease.	2010
Innofusion ND ICA resolution 5990	Intervet Colombia Ltda	Poultry	Marek and Newcastle disease.	2012
Vectormune FP-LT-EC Vaccine ICA resolution 4125	Vetiplus S.A.	Poultry	Laryngotracheitis and smallpox.	2011
Vectorvac FP-LT ICA resolution 5988	Amerivet SAS	Poultry	Laryngotracheitis and smallpox.	2012
Vectormune ND	Cesa Salud Animal	Poultry	Newcastle and Marek disease.	2017
Vectormune HVT-LT ICA resolution 2666	Cesa Salud Animal	Poultry	Marek and Laryngotracheitis disease.	2015
Vectormune HVT-NDV-RISPENS ICA resolution 2662	Cesa Salud Animal	Poultry	Newcastle and Marek disease.	2015
Vectormune HVT-IBD-RISPENS ICA resolution 2667	Cesa Salud Animal	Poultry	Newcastle and Gumboro disease.	2015
ProtequFlu-Te	Merial	Equine	Influenza and tetanus.	2017
AGID diagnostic kit		Equine	Equine Infectious Anemia Virus.	2017
Ingelvac-CircoFlex	Boehringer-	Swine	Circovirus type 2.	2007

ICA resolution 2945	Ingelheim			
Vaccine ICA resolution 3318	Suvaxyn PCV2	Swine	Circovirus type 1.	2008
Porcillis inactivated subunit vaccine ICA resolution 1227	Intervet Colombia Ltda	Swine	Circovirus type 2.	2009
Porcilis porcoli DF vaccine ICA resolution 4472	Intervet Colombia Ltda	Swine	Neonatal entrerotoxicosis.	2010
Porcillis PCV ICA resolution 5987	Intervet Colombia Ltda	Swine		2012
Porcillis PCV ID vaccine_	Intervet Colombia Ltda	Swine		2017
Circumvent PCV M ICA resolution 5989	Intervet Colombia Ltda	Swine	Protection for both circovirus and Mycoplasma hyopneumoniae.	2012
Porcillis AR-T DF ICA resolution 4130	Intervet Colombia Ltda	Swine		2011
Relsure PCV MH combination vaccine	Zoetis Colombia S.A.S.	Swine	Protects swine from porcine circovirus-associated disease (PCVAD) and enzootic	2017

ICA resolution 3329			pneumonia.	
Anigen Rapid E. diagnostic kit ICA resolution 4470	Annar Diagnostica Import S.A.S	Canine	Immunochromatography diagnostic kit.	2010
Recombitek C4	Carval de Colombia	Canine	Distemper, adenovirosis, hepatitis, parainfluenza and parvovirosis vaccine.	
Anigen Rapid Leishmania diagnostic kit	Annar Diagnostica Import S.A.S	Canine	Detection of Leishmania antibody.	2017
Recombitek C6 vaccine	Merial	Canine	Distemper virus, parvovirus, adenovirus type 1 (hepatitis), adenovirus type 2 (respiratory disease complex), parainflenza virus, and the bacteria L. canicola and L. icterohaemorrhagiae.	2017
Recombitek C7 vaccine	Merial	Canine	Distemper virus, parvovirus, adenovirus type 1 (hepatitis), adenovirus type 2 (respiratory disease complex), parainflenza virus, and the bacteria L. canicola and L. icterohaemorrhagiae.	2017
Feline immunodeficiency and leukemia virus diagnostic kit ICA resolution 2401	Annar Diagnostica Import S.A.S	Felines	Feline immunodeficiency and leukemia virus.	2010
Leucogen ICA resolution 4126	Virbac Colombia Ltda.	Felines	Leukemia	2011
Purevax FelV vaccine	Merial	Felines	Leukemia	2017

Synbiotics La-EZ/EIA Elisa diagnostic kit	ADN Internacional S.A.	Equines	Equine infectious anemia.	2012
Ingezim PRRS America Elisa diagnostic kit	ADN Internacional S.A.	Swine	Porcine reproductive and respiratory syndrome virus.	
Priocheck Ab CSFV 2.0 Elisa diagnostic kit	ADN Internacional S.A.	Swine	Swine fever virus.	
SensPERT FELV Ag/FIV Ab ICA resolution 3976	Gabrica S.A.	Feline	Feline immunodeficiency virus.	2012
SensPERT FIV Ab Elisa diagnostic kit ICA resolution 3973	Gabrica S.A.	Feline	Feline Immunodeficiency Virus.	2012
Recombitek C3	Carval de Colombia	Canine	Distemper, adenovirosis, and parvovirosis vaccine.	
Pro-Vac Circomaster one shot vaccine	Famabio S.A.S	Swine		2017
Ingezim Corona Diferencial 2.0 Elisa diagnostic kit	ADN Internacional S.A.	Swine	Transmissible Gastroenteritis and Porcine Respiratory Corona Virus.	
Priocheck BTV	ADN Internacional S.A.	Cattle	Blue tongue vaccine.	

Elisa diagnostic kit				
Mycobacterium bovis Elisa diagnostic kit	AquaLab S.A.	Cattle		2017
ID Screen® Ruminant IFN-g sandwich ELISA Diagnostic kit	IDVET	Cattle		2017
Hiprabovis IBR Marker Live vaccine	Hipra	Cattle		2017
Innofusion ND	Intervet Colombia Ltda.	Poultry	Marek Newcastle poultry vaccine.	
Porcilis Coliclos	Intervet Colombia Ltda	Swine	Infections caused by *E. coli*.	
Porcilis PCV MHYO vaccine	MSD Salud Animal	Swine		2016
Circogard vaccine	Coldiagro	Swine		2017
CircoMycogard vaccine	Coldiagro	Swine		2017
Ubac vaccine	Hipra	Cattle		2018
Virbagen Omega	Virbac Colombia Ltda.	Feline	Recombinant interferon omega vaccine.	
Farmune HVY-IBDV-LT	Amerivet SAS	Poultry	Laryngotracheitis, Gumboro and Marek disease.	
Advent vaccine	Huverpharma	Poultry		2017
HerdCheck PRRS X 3 Elisa diagnostic kit	AquaLab SAS	Swine	Porcine Reproductive and Respiratory Syndrome.	
Rhiniseng	Hipra	Swine	Atrophic rhinitis.	2014

ICA resolution 3042				
Vepured vaccine	Hipra	Swine	Prevention of edema disease	2017
Multispecies diagnostic kit	IDEXX	Multispecies		2017

Attachments:

No Attachments