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Report Highlights:

Honduras has made no modifications to its existing regulatory framework regarding genetically engineered (GE) crops. As of October 2024, planted area of GE corn in Honduras has increased by 29 percent from the previous year, rising from 52,000 to 67,000 hectares. In 2024, the National Committee on Biotechnology and Biosecurity approved six events. These include applications for two banana varieties, two experimental corn varieties, seven transgenic banana varieties, eight genome edited banana varieties, and one edited blackberry product. The National Agricultural Health and Food Safety Service has also been working on a procedure manual for the regulation of GE animals.

EXECUTIVE SUMMARY

Major U.S. agricultural exports to Honduras include yellow corn, soybean meal, pork, wheat, beer, rice, dairy products, cotton, poultry, and prepared food items. In Honduras, the cultivation of genetically engineered (GE) plants is predominantly centered on corn, which is essential for feed, food, and agricultural cultivation. The country also produces GE corn seed to sell in the domestic market for agroindustry and for export to Colombia. Additionally, Honduras imports yellow corn and soybean meal to support its poultry, livestock, shrimp, and tilapia industries.

In 2024, the National Committee on Biotechnology and Biosecurity (NCBB) approved six biotechnology events. Among these are two banana varieties which include one engineered to reduce oxidation and another resistant to *Fusarium* race 4. The approvals also include two experimental transgenic corn varieties from BAYER and seven transgenic banana varieties developed by DOLE and Elo Life Systems, both showing potential resistance to the same fungus. Additionally, the NCBB approved one edited blackberry product from Pairwise Inc. and eight genome-edited banana varieties, with a decision still pending on whether the bananas will be classified as GE or conventional. Meanwhile, the National Agricultural Health and Food Safety Service (SENASA) is working on a procedural manual for regulating genetically engineered animals.

Honduras has emerged as a leader in biotech regulatory development in Central America. Since 1998, the country has regulated its biotechnology sector under the “Biosecurity Regulation with Emphasis on Transgenic Plants.” On March 15, 2019, the Customs Union of El Salvador, Guatemala, and Honduras approved a technical regulation aimed at the commercial exchange and safe use of agricultural biotechnology. This regulation took effect for Guatemala and Honduras on October 1, 2019, and encompasses both plants and the reproduction of animals, including the mosquito responsible for transmitting dengue fever. However, procedural manuals still need to be developed to ensure full implementation of these regulations.

As of October 2024, the planted area of GE corn in Honduras has increased 29 percent from the previous year, rising from 52,000 to 67,000 hectares. Currently, GE plant cultivation is restricted in three departments of the country. This includes the departments of Intibucá, Lempira and Gracias a Dios, as well as in the municipality of Pespire, Choluteca. GE planting is also restricted in areas near native corn stocks and in regions higher than 1,000 meters above sea level, following the Honduran government's request to protect native communities.

In September 2019, SENASA approved a streamlined procedure for evaluating requests for genome-edited products, aimed at reducing the approval time. The new regulations stipulate that the committee will review each case individually to determine whether a product qualifies for this simplified approval process.

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CHAPTER 1: PLANT BIOTECHNOLOGY

PART A: PRODUCTION AND TRADE

a) RESEARCH AND PRODUCT DEVELOPMENT

There is currently no research or development of antibiotics, functional foods or feeds, or pharmaceuticals using genetically engineered (GE) techniques or GE plants in Honduras.

b) COMMERCIAL PRODUCTION

Honduras permits the commercial cultivation of GE crops for corn seed and grain production. From October 2023 to 2024, the area planted of GE corn grew by 29 percent, increasing from 52,000 to 67,000 hectares. This expansion resulted from a general market and economic recovery, coupled with improved weather conditions.

c) EXPORTS

Honduras exports GE corn seeds to Colombia and previously exported them to the United States from 2009 to 2014. Shipments of these seeds include documentation that specifies the content of GE material. The products exported to the United States have received approval from the U.S. regulatory system.

d) IMPORTS

Honduras imports GE crops, processed products, and seeds directly from the United States and Brazil. The majority of yellow corn and soybean meal imported from the U.S. are GE products, which support the poultry, livestock, shrimp, and tilapia industries. In 2023, Honduras imported \$227 million worth of U.S. corn, primarily GE yellow corn, marking a 23 percent decrease from the previous year. In contrast, Honduras imported \$211 million worth of U.S. GE soybean meal, reflecting a 7 percent increase compared to the previous year.

e) FOOD AID

Honduras has been a food aid recipient since 1999. The Government of Honduras (GOH) has accepted U.S. food donations of soybean meal and yellow corn for the agroindustry. There are no barriers related to biotechnology that impede the importation of food aid.

f) TRADE BARRIERS

Not applicable

PART B: POLICY

a) REGULATORY FRAMEWORK

Table 1: Legal and Regulatory Terms Used in Honduras

Legal term (Spanish)	Legal Term (in English)	Laws and Regulations where term is used	Legal Definition (in English)
Reglamento de Bioseguridad con énfasis en plantas transgénicas	Biosecurity Regulation with Emphasis on Transgenic Plants	Agreement No.15 70-98 and modified by Decree No. 344-2005 published in 2006	The biosecurity regulation gives SENASA responsibility for the regulatory framework for agricultural biotechnology, including GE product import requests, field testing, and commercialization requests for GE crops. The regulation applies to food, feed, seed, and

			environmental safety issues.
Comisión Nacional de biotecnología y Bioseguridad Agrícola (CNBBA)	National Committee of Biotechnology and Agriculture Biosecurity (NCBB)	SENASA Agreement No. 177-2017	<p>It is an advisory body and chaired by the Department of Certification of Seeds and Phyto genetic Resources of the National Agricultural Health and Food Safety Service (SENASA).</p> <p>The function of the Biosafety Committee is to carry out all the technical evaluations that are required in the biotechnology projects that are carried out in the country. These include risk assessment at each step of the process and for each specific case, this involves carrying out laboratory tests, analysis, investigation and expert consultation.</p> <p>This committee meets at least three times a year and is in charge of providing technical advice to whoever consults on the subject.</p> <p>When an application is made to allow an experiment in the country, a complete study is made that includes type of organism, its construction and behavior, the objective of the modification, information provided by the provider and by international organizations, as well as the experience with said organism in other countries.</p>
Acuerdo CD SENASA 008-2019 ; Procedimiento de autorización para solicitudes relacionadas	SENASA Agreement 008-2019; Authorization procedure for applications related to the use of new	SENASA Agreement 008-2019	This regulation was created because the advancement of science and technology allows the development of new varieties of plants and organisms through new techniques known as precision breeding techniques, genome editing, plant breeding innovation

con el uso de nuevas técnicas de mejoramiento genético (biotecnología de precisión)	genetic improvement techniques (precision biotechnology)		or modern genetic improvement techniques without this results in a living modified organism. The latter is of vital importance in the application of the National regulations, since these are genetic improvement procedures that use precise knowledge of the relationship between the genotype and phenotype and the tools of molecular biology to develop an organism that in most cases are equivalent to or indistinguishable from those that can be developed using traditional breeding techniques.
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The Secretariat of Agriculture and Livestock (SAG), through SENASA, oversees the regulation of GE plants. SENASA’s Seeds and Plant Genetic Resources Certification Department initiated the *Biosecurity Regulation with Emphasis on Transgenic Plants*, which was approved by the GOH in 1998 through Agreement No.1570-98. The legal basis for this regulation is the *Phytozoosanitary Law*. The law was reviewed and modified by Decree No. 344-2005 published in 2006. These regulations can be found [here](#) in Spanish.

The biosecurity regulation gives SENASA responsibility for the regulatory framework for agricultural biotechnology, including GE product import requests, field testing, and commercialization requests for GE crops. The regulation applies to food, feed, seed, and environmental safety issues.

On March 15, 2019, the Customs Union of El Salvador, Guatemala, and Honduras approved a [technical regulation](#) (link in Spanish) to ensure the safe commercial exchange of agricultural biotechnology. This regulation applies to both plants and the reproduction of animals, including mosquitoes that transmit dengue fever. The regulation took effect on October 1, 2019, and the only remaining step for full implementation is the completion of procedure manuals, which is still in progress.

In September 2019, SENASA approved a simplified procedure for evaluating products created through gene editing. This new process aligns with the Government of Honduras's Sanitary and Phytosanitary (SPS) commitments to the World Trade Organization and aims to reduce the approval time for each request.

SENASA is eager to advance biotechnology regulations in Honduras. However, there have been no significant developments in this area in 2024. The Honduran government has not yet approved a manual of procedures for the regulation of animals.

The Biosecurity Regulation with Emphasis on Transgenic Plants provides the procedures to evaluate a request and assigns the scientific analysis to NCBB. The NCBB was created in

1998 to provide advice to SENASA in the decision-making process. In January 2018, a new decree was published by SENASA in the Official Gazette to update the procedures of the NCBB, without changing the objectives and its responsibilities. The Committee is composed of scientists from the following ten public and private institutions:

- SENASA: Focal point for the Cartagena Protocol.
- Directorate of Science and Agricultural/Livestock Technology (DICTA)/SAG
- Focal Point of the Codex Alimentarius in SAG
- Ministry of Public Health
- Ministry of Renewable Resources and Environment (Mi Ambiente)
- Competitiveness and Innovation Directorate, Secretariat of Planning (SEPLAN)
- National University of Honduras (UNAH)
- Honduran Foundation for Agricultural Research (FHIA)
- Pan American School of Agriculture - “Zamorano”
- Standard Fruit Company

After the NCBB provides a scientific recommendation, the political decision for an approval of an event and its commercialization is with the Director General of SENASA. The legal grounds of the *Phytozoosanitary Law* published in 2006 and the *Regulation with Emphasis on Transgenic Plants* are to provide the Director General of SENASA reliable tools to make decisions about field trials, semi-commercialization, and commercialization of GE crops.

Honduras does not make distinctions in regulatory treatment for approval between food, feed, processing, and environmental release (cultivation).

The commercialization of GE products in Honduras does not impact U.S. exports, thanks to an established legal framework and the acceptance of GE products by both industry and consumers in the country. In 2012, the Honduran Congress passed the Law for the Protection of New Varieties of Plants (UPOV) under Decree 21-2012, but this law was later repealed. Currently, there is no political will to propose a new UPOV law for approval.

The process for the commercialization of an event has been officially published through the *Guide of Processes and Procedures of the Regulatory System for “Genetically Modified Organisms” for Decision Making*. The publication was made in the Official Gazette No. 34538 of January 10, 2018. The purpose of the guide is to communicate and provide users with the procedures to follow in the stages of field test, pre-commercial, and commercialization. The approval process is the following:

- The NCBB recommends that companies carry out field tests within normal production cycles: the first cycle of planting begins in May or June, and the second cycle begins in August or September.
- After the test stage is completed, the NCBB advises SENASA to extend the pre-commercial area from one hectare up to 500 hectares, depending on the company's request.
- The regulation for biosecurity indicates that the NCBB should provide an answer to a request within 90 days. The estimated time until commercialization varies according to

the questions that the NCBB may raise. In some cases, the NCBB requests more information from field tests as part of the pre- commercial stage.

- After the NCBB reaches a consensus, it provides a scientific recommendation and forwards the decision for approval of an event and its commercialization to the Director General of SENASA.
- The Director of SENASA notifies the resolution and findings of the NCBB to the requesting company.

The NCBB wrote the guidelines below for firms looking at Honduras as an export market for GE crops. The document is complementary to the *Biosecurity Regulation with Emphasis in Transgenic Plants* issued in 1998 and is meant to ease the process and attract interest in GE crop development for export purposes.

The risk evaluation guidelines indicate that GE crop developers requesting a risk evaluation for a test trial, or the commercial liberation of a GE product must provide the following information to the Biotechnology and Biosafety Committee:

- **Personnel involved:** Names, addresses, and telephone numbers of the people that have developed or supplied the event.
- **Purpose of the evaluation:** Provide a detailed description of the purpose of the introduction of the event, including the experimental design and/or the proposed production.
- **Description of the genetic material:** Provide a description of the desired or real characteristic of the modified genetic material. Also include how the characteristic differs from the parent non-modified organism (i.e., morphologic or structural characteristics, activities and physiological processes, number of copies of the material inside of the recipient organism (integrated or extra-chromosomal) products and secretions and characteristics of growth.
- **Transformation methods:** Country and place where the parent plant, the receptor organism and the vector were collected, developed, and produced. Transformation methods and selection processes employed.
- **System used to produce the event:** Provide a detailed description of the molecular biology of the system that will be used to produce the event (for example: donor-recipient-vector).
- **Place of evaluation:** Country and geographic location of the evaluation, specifying the exact description of the areas to be evaluated.
- **Biosecurity measures:** Provide a detailed description of the processes and security measures that have been used or will be used to prevent the contamination, liberation and dissemination of the donor organism, the recipient organism, the vector, the constituent of each event and the event in the country of origin, in the countries that will be in transit and in Honduras.
- **Programmed destination:** Provide a detailed description of the programmed destination (including the final destination and all the intermediary destinations), uses, and/or distribution of the event (Example: greenhouses, laboratories, or place of the growth chamber, site of the field test, site of the pilot project, production, spreading, manufacturing site, proposed site of sale and distribution).

- **Containment measures:** Provide a detailed description of the procedures, processes and security measures proposed that will be used to prevent the escape and spreading of the event in each of the programmed destinations.
- **Method of final disposal:** Provide a detailed description of the proposed method for the final disposal of the event.

b) APPROVALS/AUTHORIZATIONS

In 2024, NCBB approved six event applications for the following:

1. One banana variety designed to reduce oxidation.
2. One banana variety that is resistant to Fusarium race 4.
3. Two experimental transgenic corn varieties from BAYER.
4. Seven transgenic banana varieties developed by DOLE and Elo Life Systems, which may exhibit resistance to Fusarium race 4 and are currently in the experimental stage.
5. Eight genome-edited banana varieties under review to determine if they will be classified as GE or conventional species, with a decision expected by November 2024.
6. One edited blackberry product from Pairwise Inc. awaiting review.

In 2024, NCBB approved three applications for genetically engineered bananas submitted by Tropic BioSciences, along with the black sigatoka-resistant banana, to move to the commercial stage.

Table 2 shows currently approved events per crop. Authorizations for planting do not have an expiration date.

Table 2. Approved Crop/Events

Approval Year	Company	Crop	Event	Type of Approval	Usage
2002	Monsanto	Corn	MON 810 + NK 603	Commercial	Feed, food, and seed production
2010	Pioneer	Corn	TC 1507	Commercial	Feed, food, cultivation
2011	Bayer Crop Science	Rice	LLRice 62	Commercial	Food only

2012	Monsanto	Corn	MON 89034	Commercial	Feed, food and seed production
2013	Monsanto	Corn	MON 88017	Commercial	Feed, food and seed production
2013	Monsanto	Corn	MON 89034 + MON 88017	Commercial	Feed, food and seed production
2015	Dow Agrosience	Corn	MON 89034 + NK 603 + TC 1507	Commercial	Feed, food, cultivation
2020	Syngenta Crop Protection SA	Corn	SYN BT11 x MIR 162 x GA21, Agrisure® VIP3	Commercial	Feed, food and seed production
2022	Tropic Biosciences	Banana	Non Browning Cavendish Banana	Experimental	Food production
2022	Tropic Biosciences	Banana	Non Browning Cavendish Banana	Commercial	Food production
2022	Tropic Biosciences	Banana	Extended Shelf Life Banana (ESL)	Experimental	Food production
2022	Standard Fruit Company	Banana	Banana resistant to fusarium race 4	Experimental	Food production
2022	Pairwise Plants Services Inc.	Mustard Green	Brassica Juncea with improved flavor profile */	Commercial	Food production
2024	Dole/Elo Life Systems	Banana	Banana with reduce oxidation	Commercial	Food production

2024	Dole/Elo Lyfe Systems	Banana	Banana resistant to fusarium race 4	Commercial	Food production
2024	Bayer	Corn	Transgenic Corn	Experimental	Food production
2024	Dole/Elo Lyfe Systems	Banana	Transgenic Bananas resistant to Fusarium Race 4	Experimental	Food production
2024	Dole/Elo Lyfe Systems	Banana	Genome edited Bananas (GMO/Conventional)	Experimental	Food production
2024	Pairwise Inc.	Blackberry	Genome edited Blackberry	Experimental	Food production

Source: SAG's National Service of Food Safety, Plant and Animal Health (SENASA), Seeds Certification Department. */The approval follows a simplified procedure if not much modification is done, it is recommended by NCBB as a simplified procedure but also regulated.

c) STACKED EVENT APPROVALS

Honduras has approved stacked events since 2010. If an event is already registered individually, it does not need to be registered again when it is part of a stacked event. The NCBB requests that a risk analysis of the stacked event be reported to the Biosafety Clearing House of the Cartagena Protocol, but there is no other specific stacked event policy.

d) FIELD TESTING

Honduras currently allows field testing and commercialization of GE crops. The requirements to request field testing and commercial liberation of an event are based on the *Phytozoosanitary Law* and the *Biosecurity Regulation with Emphasis on Transgenic Plants*. The process is the following: (1) a company submits a request to SENASA; (2) SENASA's Director summons the NCBB to review the request; and (3) each institution in the NCBB carries out its analysis. Depending on issues raised during the analysis, they continue to meet until a consensus is reached. The area for the field test is usually conducted on one hectare of land.

e) INNOVATIVE BIOTECHNOLOGIES

As noted above, in September 2019 SENASA approved a simplified procedure for approving products produced using gene editing, which will shorten the approval time for such requests.

f) COEXISTENCE

GE corn is not planted in the three departments of Intibucá, Lempira or Gracias a Dios, nor in the municipality of Pespire, Choluteca. GE planting is also restricted in areas near native corn stocks, and in regions higher than 1,000 meters above sea level at the request of native communities.

g) LABELING AND TRACEABILITY

SENASA requires labeling for GE corn seed for planting. It does not require labeling for bulk shipments, raw material, packaged foods, feed, or other products derived from and/or containing ingredients from GE plants.

h) MONITORING AND TESTING

Not applicable

i) LOW LEVEL PRESENCE (LLP) POLICY

Not applicable

j) ADDITIONAL REGULATORY REQUIREMENTS

After an event is approved for commercialization, it must be registered at the Seeds and Plant Genetic Resources Certification Department of SENASA prior to use. Registrations are not overly cumbersome and do not expire.

k) INTELLECTUAL PROPERTY RIGHTS (IPR)

The Law for the Protection of New Varieties of Plants protects intellectual property rights of the developer of new varieties and the variety itself. This law was approved by Decree 21-2012 by the Honduran Congress in 2012.

l) CARTAGENA PROTOCOL RATIFICATION

The Honduras Congress ratified the Cartagena Protocol on Biosafety to the United Nations' Convention on Biological Diversity in September 2008.

m) INTERNATIONAL TREATIES AND FORUMS

Honduras actively participates in discussions related to GE plants within international fora, sharing its positive experience to facilitate processes for the use of agricultural biotechnology.

In 2012, the Honduran Congress passed UPOV under Decree 21-2012, but this law was later repealed. Currently, there is no political will to propose a new UPOV law for approval.

n) RELATED ISSUES

Expanded use of biotechnology has the potential to benefit Honduras. Currently, nearly 200,000 hectares of non-GE corn are planted in Honduras, primarily using traditional (non-hybrid) seed. In 2023, the average corn yields in Honduras varied significantly by seed type, according to PROGRANO (the Association of Grains Producers of Honduras). Traditional

(creole) seeds produced an average of 1.5 metric tons per hectare while improved varieties yielded an average of 4.5 metric tons per hectare. Hybrid seeds averaged 5.5 metric tons per hectare, while genetically engineered (GE) seeds yielded the highest at 7.6 metric tons per hectare.

PART C: MARKETING

a) PUBLIC/PRIVATE OPINIONS

Certain groups actively conduct negative campaigns against GE crops, primarily targeting transnational companies that produce and sell seeds, agrochemicals, and engage in mining. However, the public and the Government of Honduras, which embraces an environmental ideology, largely view biotechnology as a valuable agricultural tool. Grain producers, along with the broader public, tend to be the strongest advocates for biotechnology in the country.

b) MARKET ACCEPTANCE/STUDIES

Market acceptance of GE plants and products is generally favorable in Honduras. Fruit and vegetable producers who grow for export often rotate their crops with GE corn, which helps ensure that their produce remains free from pesticide residues and pests. Those utilizing GE crops experience significant yield increases. The cultivation of GE corn fosters a sustainable approach for medium and large farms, promoting reduced pesticide use, increased no-tillage practices, and enhanced rotation with legumes, all contributing to consistently high yields.

The Interamerican Development Bank (IDB) finalized a regional market study for agricultural biotechnologies. The study can be found [here](#) in Spanish.

CHAPTER 2: Animal Biotechnology

PART D: PRODUCTION AND TRADE

a) RESEARCH AND PRODUCT DEVELOPMENT

Not applicable

b) COMMERCIAL PRODUCTION

In discussion and preparation of implementation strategies.

c) EXPORTS

Not applicable

d) IMPORTS

Not applicable

e) TRADE BARRIERS

Not applicable

PART E: Policy

a) REGULATORY FRAMEWORK

On March 15, 2019, the Customs Union of El Salvador, Guatemala, and Honduras approved a [technical regulation](#) (link in Spanish) to ensure the safe commercial exchange of agricultural biotechnology. This regulation applies to both plants and the reproduction of animals, including mosquitoes that transmit dengue fever. The regulation took effect on October 1, 2019, and the only remaining step for full implementation is the completion of procedure manuals, which is still in progress.

b) APPROVALS/AUTHORIZATIONS

Not applicable

c) INNOVATIVE BIOTECHNOLOGIES

Not applicable

d) LABELING AND TRACEABILITY

Not applicable

e) ADDITIONAL REGULATORY REQUIREMENTS

Not applicable

f) INTELLECTUAL PROPERTY RIGHTS (IPR)

Not applicable

g) INTERNATIONAL TREATIES and FORUMS

Not applicable

h) RELATED ISSUES

Not applicable

PART F: Marketing

a) PUBLIC/PRIVATE OPINIONS

Not applicable

b) MARKET ACCEPTANCE/STUDIES

Not applicable

CHAPTER 3: MICROBIAL BIOTECHNOLOGY

PART G: Production and Trade

a) COMMERCIAL PRODUCTION

FAS Tegucigalpa is not aware of commercial production of food ingredients derived from microbial biotechnology in Honduras.

b) EXPORTS

Not applicable

c) IMPORTS

Honduras imports food ingredients such as enzymes and additives for different food processing activities. However, the volume or value of these imports, and whether the products are derived from microbial biotechnology could not be determined.

d) TRADE BARRIERS

Not applicable

PART H: Policy

a) REGULATORY FRAMEWORK

Not applicable

b) APPROVALS/AUTHORIZATIONS

Not applicable

c) LABELING and TRACEABILITY

Not applicable

d) MONITORING AND TESTING

Not applicable

e) ADDITIONAL REGULATORY REQUIREMENTS

Not applicable

f) INTELLECTUAL PROPERTY RIGHTS (IPR)

Not applicable

g) RELATED ISSUES

Not applicable

PART I: Marketing

a) PUBLIC/PRIVATE OPINIONS

Not applicable

b) MARKET ACCEPTANCE/STUDIES

Not applicable

Attachments:

No Attachments