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Report Highlights:

Despite private sector support for biotechnology, Venezuela's ban on the domestic use of and research on modern biotechnology-derived agriculture remains in place. The backbone of this ban is the Seed Law of December 2015, which also prohibits the importation of genetically-engineered seeds. However, Venezuela permits the importation of biotechnology-derived crops, which the United States is the leading exporter of including corn, soybeans, soybean meal, and soybean oil. The United States supplied an estimated 815,000 MT of genetically engineered crops in 2021 to Venezuela, representing a market share of 56 percent, followed by Brazil and Mexico.

Executive Summary

Venezuela has not adopted modern agricultural biotechnology on a commercial scale. Due to legal constraints, no commercial biotechnology crops are grown or developed in Venezuela. The importation of genetically-engineered seeds is prohibited. Corn, the local crop that could benefit the most from agricultural biotechnology, is grown entirely with conventional seeds. A Seed Law enacted in December 2015 in Venezuela prohibits plant biotechnology research and the use of biotech seeds in agricultural production. However, Venezuela permits the importation of biotech-derived crops and processed products. The United States is currently the leading exporter of biotech-derived crops to Venezuela, followed by Mexico and Brazil, including corn, soybeans, soybean meal, and soybean oil. The United States supplied an estimated 815,000 MT of genetically engineered (GE) crops in 2021, representing a market share of 55.9 percent. Between January and July 2022, the United States increased its market share of biotech crops to 67.1 percent.

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Chapter 1: Plant Biotechnology

Part A: Production and Trade

a) Research and Product Development

Venezuela has not developed any genetically engineered (GE) crops. The only ongoing biotechnology research is in molecular genetics and tissue culture conducted by public universities and private extension institutes with minimal involvement by the regime. The current seed law bans the research and development of biotechnology-derived or GE crops.

b) Commercial Production

No commercial biotechnology crops are being grown or developed in Venezuela.

c) Exports

Venezuela exported no biotech-derived products in 2021.

d) Imports

There are no barriers to importing or marketing GE crops and processed products. Venezuela is a significant importer of biotech-derived soybeans, soybean meal, oils, and corn.

Table 1: Venezuelan Imports of Likely GE Products in 2021 and 2022 (thousand MT)

Country	Corn	Soybeans	Soybean Meal	Soybean Oil	Total	Annual Change
2021 (U.S. market share in 2021: 55.9%)						
USA	386	48	341	41	**815**	(10.7) %
Mexico	205	-	-	-	**205**	(67.6) %
Brazil	201	-	4	118	**323**	59.8 %
Argentina	86	-	-	3	**88**	(46.9) %
Other Co.	0	-	19	7	**26**	(58.6) %
Total	**878**	**48**	**363**	**169**	**1,458**	**(26.3) %**
January – July 2022 (U.S. market share in 2022: 67.1%)						
USA	353	39	297	49	**738**	54.4 %
Mexico	-	-	-	-	**-**	(100.0) %
Brazil	116	-	-	58	**175**	62.9 %
Argentina	182	-	-	-	**182**	119.8 %
Other Co.	-	-	-	6	**6**	(75.6) %
Total	**651**	**39**	**297**	**112**	**1,100**	**34.7 %**

Source: Trade Data Monitor

e) Food Aid

Since April 2021, the World Food Program has provided school meals to Venezuela. There is no information on the inclusion of food derived from GE crops in this assistance. There are no barriers to the importation of biotechnology-derived products for food aid.

f) Trade Barriers

On December 28, 2015, the regime published a seed law prohibiting the use and research of modern biotechnology in agriculture. This law prohibits the production, importation, use, release, and propagation of GE or transgenic seeds. The law also makes it illegal to grant copyright and patent protection to any seeds, conventional or otherwise. Violations of this law may result in penalties ranging from fines to imprisonment.

Part B: Policy

a) Regulatory Framework

The Seed Law of December 2015[1] effectively bans any transgenic or modern biotechnology research in agriculture. The National Seed Commission (CONASEM) drafted the Seed Law under the authority of the National Institute of Agricultural Research (INIA), which registers and certifies the seeds that are permitted by law.

The Seed Law forbids the use, application, and research of modern agricultural biotechnology. The following techniques are illegal under the law:

- In vitro nucleic acid techniques, including the recombinant DNA technique and the direct injection of nucleic acids into cells or organelles.
- The fusion of cells of species beyond the taxonomic family, which exceeds the natural reproduction or recombination barriers and is not used in traditional reproduction and selection.

The Seed Law also forbids the production, importation, use, release, and multiplication of GE seeds. Furthermore, the law prohibits granting copyrights and patents on any GE or naturally produced seed. Violators may face a variety of penalties, including fines and imprisonment for violating the Seed Law. The regime opposes obtaining private profits from biotechnology research and commercialization of its results.

Venezuela's Ministry of Eco-Socialism[2] (MINEC) is responsible for the agricultural biotechnology policy and its regulations. The Directorate of Biosecurity and Bio-commerce at MINEC administers and regulates all genetic resources and biosecurity issues within Venezuela. MINEC is responsible for encouraging activities that improve biodiversity within the country, including assessing all biotechnology and biosecurity issues, assessing biological diversity information, and signing contracts to provide access to genetic resources.

[1] Seed Law of December 2015: https://www.fao.org/faolex/results/details/en/c/LEX-FAOC151761 (Spanish)
[2] Venezuela's Ministry of Eco-Socialism: http://www.minec.gob.ve (Spanish)

Table 2: Terminology used in Venezuelan Legislation Related to Agricultural Biotechnology

Legal term (in Spanish)	Legal Term (in English)	Laws and Regulations where term is used	Legal Definition
Biotecnologia Moderna	Modern Biotechnology	Seed Law of 2015	In vitro nucleic acid techniques, including the recombinant DNA technique and the injection of nucleic acids into cells. The fusion of cells of different species that could not occur naturally and are not used in traditional breeding and selection.
Organismos Geneticamente Modificados o Transgénicos	Genetically Modified or Transgenic Organisms	Seed Law of 2015	Any living or non-living organism having a novel combination of genetic material obtained through the application of modern biotechnology.
Hibrido	Hybrid	Seed Law of 2015	The result of controlled crossbreeding between genetically distinct and stable parents of the same species, whose generations will express different traits.
Semilla	Seed	Seed Law of 2015	Any botanical structure intended for the sexual or asexual reproduction of a species.
Semilla Transgenica	Transgenic Seed	Seed Law of 2015	Any seed that carries a novel combination of genetic material, which has been obtained through the application of modern biotechnology.
Agrobiodiversidad	Agro-biodiversity	Seed Law of 2015	Set of components of biological diversity for agricultural production, including food production, livelihood sustainability, and the conservation of agricultural systems.
Biopirateria	Biopiracy	Seed Law of 2015	Illegal appropriation and use of local genetic and biological resources,

			undermining national sovereignty and affecting biological diversity.
Bioseguridad	Biosafety	Seed Law of 2015	A set of safety measures required to prevent or minimize potential adverse effects on ecosystems and biological diversity resulting from the application of modern biotechnology.

b) Approvals

There are no GE plants approved for cultivation or export in Venezuela. Imports of GE crops or processed products are not restricted.

c) Stacked Events or Pyramided Event Approvals

Not applicable.

d) Field Testing

Not applicable.

e) Innovative Biotechnologies

Venezuela has no regulations related to innovative biotechnologies, but these are within the field of modern biotechnology, and are therefore prohibited according to the current seed law.

f) Coexistence

Not applicable.

g) Labeling and Traceability

Venezuela does not require special labeling for products derived from GE plants or containing GE plant ingredients.

h) Monitoring and Testing

A reference laboratory affiliated with the National Institute of Agricultural Research (INIA) in the city of Maracay has been used for the detection of GE products. The laboratory's operational status is unknown at this time.

i) Low-Level Presence (LLP) Policy

No LLP policy.

j) Additional Regulatory Requirements

Not applicable.

k) Intellectual Property Rights (IPR)

The Seed Law prohibits-copyright protections and patents on any biotechnology seeds.

l) Cartagena Protocol Ratification

On May 24, 2000, Venezuela signed the Cartagena Protocol on Biosafety (CPB) and ratified the agreement on September 11, 2003, and national measures are partially in place. To date, the CPB has not impacted trade.

m) International Treaties and Forums

Venezuela is a member of Codex Alimentarius. The Maduro regime's Codex representation is managed by the Ministry of Industry and Commerce's National Autonomous Service for Norms, Quality, Metrology, and Technical Regulations[3] (SENCAMER). Venezuela is a signatory to the International Plant Protection Convention (IPPC). The Ministry of Agriculture and Land's National Institute of Agricultural Health (INSAI) represents the regime to the IPPC.

n) Related Issues

None.

Part C: Marketing

a) Public/Private Opinions

The regime maintains public campaigns against GE products that convey an overall message of the "dangers" of their use in the environment and in consumption. Private organizations, such as the Venezuelan Federation of Agricultural Producers[4] (FEDEAGRO) and the Venezuelan Association of Seed Producers[5] (AVESEM), publicly support agricultural biotechnologies to improve production levels and capabilities.

b) Market Acceptance/Studies

Despite the regime's prohibition on the development and marketing of agricultural biotechnology, Venezuelan producers continue to express a need for and acceptance of biotech-derived products and

[3] Venezuela's National Autonomous Service for Norms, Quality, Metrology, and Technical Regulations: http://www.sencamer.gob.ve/sencamer/documents/codex.htm (Spanish)
[4] Venezuelan Federation of Agricultural Producers: https://fedeagro.org (Spanish)
[5] Venezuelan Association of Seed Producers: https://avesem.org (Spanish)

crops. A local agricultural association source reports that domestic production could double in two years if a regulatory framework for agricultural biotechnology allowed the use of biotech-derived seeds. Some agricultural leaders have criticized the regime for not allowing local use of agricultural biotechnology while allowing the importation of biotechnology-derived products and crops, thereby undermining domestic production.

In general, Venezuelan consumers remain unconcerned about the consumption of biotechnology-derived foods, especially as they deal with the country's ongoing food security crisis. For more information on the Venezuelan food security crisis, please see FAS Caracas's Report on the Food Security Situation in Venezuela. Venezuela imports significant volumes of biotech-derived soybeans, soybean meal, soybean and vegetable oil, and corn, primarily from the United States, Brazil, and Argentina.

Chapter 2: Animal Biotechnology

Part D: Production and Trade

a) Research and Product Development

There are no animal biotechnology events under development in Venezuela, and the regime has not granted approval for animal biotechnology from any source. Research centers and universities have expressed interest in these techniques to improve the quality of cattle and goats. Currently, in vitro fertilization and embryo transfer are used in cattle genetic improvement, and several companies using Brazilian biotechnology offer it commercially. The use of modern animal biotechnology techniques is less developed. Animal cloning techniques are not being researched in public or private institutions, nor are they used to improve animal genetics. Modern animal biotechnology has been used in Venezuela to diagnose animal diseases, mostly viral.

b) Commercial Production

Not applicable.

c) Exports

Not applicable.

d) Imports

Venezuela imports recombinant vaccines and diagnostic kits for animal diseases. The primary markets for these products are the poultry, swine, and livestock industries.

e) Trade Barriers

Not applicable.

Part E: Policy

a) Regulatory Framework

Because there is no policy governing animal biotechnology, no regime entity is in charge of regulating GE animals or livestock clones for food safety, animal welfare, or environmental safety issues. Animal biotechnology is mentioned in the Seed, Animal Reproductive Material, and Biological Inputs Law of 2002[6]. However, no regulations have been implemented to address animal biotechnology research and commercialization.

b) Approvals

Not applicable.

c) Innovative Biotechnologies

No regulation at this time.

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

None.

Part F: Marketing

a) Public/Private Opinions

There is no information about public or private sector opinions on using livestock cloning or GE or genome-edited animals.

b) Market Acceptance, Studies

[6] Seed, Animal Reproductive Material, and Biological Inputs Law of 2002: http://www.wipo.int/edocs/lexdocs/laws/es/ve/ve047es.pdf (Spanish)

The Venezuelan livestock sector routinely uses advanced techniques of genetic improvement through in vitro fertilization and embryo transfer. As a result, the industry overall maintains a favorable attitude toward any technological innovations that help to improve production and operations.

Chapter 3: Microbial Biotechnology

Part G: Production and Trade

a) Commercial Production

The only microbial biotech-derived food ingredients in Venezuela are those traditionally used to make alcoholic beverages, dairy products, and processed food products.

b) Exports

Venezuela exports alcoholic beverages, dairy products, and processed products that may contain microbial biotech-derived food ingredients. In 2021, exports of these products totaled $8.9 million and 49 percent were shipped to the United States.

c) Imports

In 2021, Venezuela imported $225 million of processed products (prepared foods, wine, beer, condiments and sauces, fruit juices, dairy products, and infant foods) and enzymes that may contain microbial biotech-derived food ingredients. The main suppliers of these products in 2021 were Brazil (37 percent), the United States (29 percent) and Europe (12 percent).

d) Trade Barriers

None.

PART H: Policy

a) Regulatory Framework

The Ministry of Health of Venezuela (MINSALUD) enforces food safety standards and regulations. It is responsible for regulating food ingredients for human consumption through its Sanitary Health Service[7] (in Spanish: Servicio Autónomo de Contraloria Sanitaria) and the Directorate for Food Safety and Inspection (in Spanish: Direccion de Inocuidad e Inspeccion de Alimentos y Bebidas Alcoholicas). No specific regulations cover the use of microbial biotech-derived ingredients.

b) Approvals

Not applicable.

c) Labeling and Traceability

[7] Venezuela's Sanitary Health Service: http://www.sacs.gob.ve (Spanish)

In Venezuela, no labeling regulations for microbial biotech-derived ingredients or food products have been developed.

d) Monitoring and Testing

Venezuela does not perform tests for evidence of genetic engineering in biotechnology-derived food products or ingredients.

e) Additional Regulatory Requirements

There are no additional requirements at this time.

f) Intellectual Property Rights (IPR)

Not applicable.

g) Related Issues

None.

Part I: Marketing

a) Public/Private Opinions

Not applicable.

b) Market Acceptance, Studies

The information provided above regarding plant biotechnology acceptance generally applies to microbial biotechnology as well.

Attachments:

No Attachments