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Report Highlights:

The Venezuelan private sector supports biotechnology use and application. Nevertheless, the Venezuelan authority maintains a ban on the domestic use and research of modern biotechnology-derived agriculture. Venezuela's formal basis for this ban remains through the 2015 Seed Law, which also prohibits genetically engineered (GE) seed imports. However, Venezuela still allows GE-derived product imports, and the United States is the leading supplier, including corn, soybeans, soybean meal, and soybean oil. In 2023, the United States supplied an estimated 955,000 metric tons (MT) of GE-derived products to Venezuela, accounting for 51 percent market share, followed by Brazil and Argentina.

Executive Summary

Venezuela does not adopt modern agricultural biotechnology on a commercial scale. Due to legal considerations, Venezuela does not cultivate or develop any commercial biotechnology crops and importing GE-seed is prohibited. Corn, the country's most important staple, would benefit from agricultural biotechnology through increased crop yields is grown entirely with conventional seeds. Venezuela's Seed Law of December 2015 prohibits plant biotechnology research and the use of GE-seed in agricultural production. However, the importation of biotechnology-derived crops and processed products is permitted. The United States is the leading exporter of biotechnology-derived crops to Venezuela, including corn, soybeans, soybean meal, and soybean oil, followed by Brazil and Argentina. In 2023, the United States exported an estimated 955,000 MT of GE-crops, which accounted for 51 percent of the market share. In 2024 (January-August), U.S. crop exports increased 61 percent year-on-year.

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Chapter 1: Plant Biotechnology

Part A: Production and Trade

a) Research and Product Development

Venezuela has not developed any GE plant products. The only ongoing biotechnology research is related to molecular genetics and tissue culture conducted by public universities and private extension institutions with minimal involvement by the Venezuelan authorities. The Seed Law of 2015 bans the research and development of biotechnology-derived crops.

b) Commercial Production

There are no commercial biotechnology crops or genetic engineering under development.

c) Exports

Venezuela did not export biotechnology-derived products in 2023.

d) Imports

There are no barriers to importing or marketing GE-crops and processed products. Venezuela is a significant importer of GE-soybeans, soybean meal and oil, and corn (Table 1).

Between 2019 and 2023, Venezuela's GE-crop imports increased 61 percent.¹ In 2023, these imports consisted of 54 percent corn, 34 percent soybean meal, 7 percent soybean oil, and 5 percent soybeans (Figure 1).

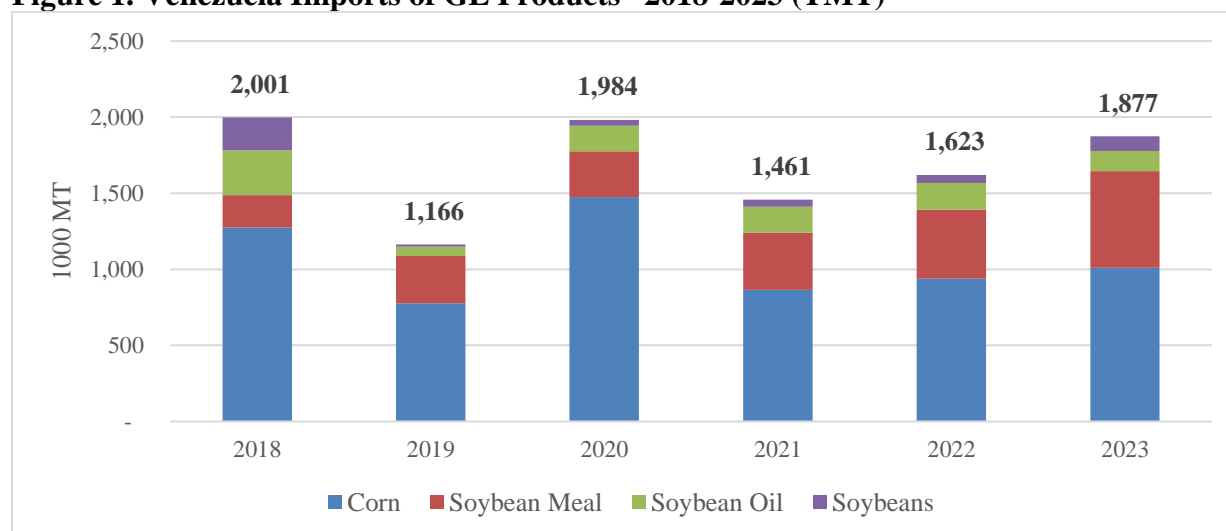
Table 1. Venezuelan Imports of GE Products* in 2023-2024 (January-August) (Thousand Metric Tons [TMT])

Country	Corn	Soybeans	Soybean Meal	Soybean Oil	Total	Annual Change %
2023 - (U.S. Market Share: 51 percent)						
USA	243	89	623	0	955	(1.9)
Brazil	522	7	12	97	637	45.8
Argentina	246	-	-	-	246	23.5
Other	-	-	-	36	36	264.7
Total	1,011	96	635	133	1,875	15.7
January- August 2024 - (U.S. Market Share: 56 percent)						
USA	613	44	400	36	1,093	60.6
Brazil	457	47	2	56	562	52.0
Argentina	262	-	-	-	262	31.4
Other	-	-	-	43	43	314.4
Total	1,332	91	402	135	1,960	55.6

Data Source: Trade Data Monitor. *Commodity imports more than likely to be biotechnology derived.

¹ This figure coincides with the 2019 decision by the Maduro authority to remove itself as the sole importer of agricultural products and allow the private sector to import and select suppliers and products.

Figure 1. Venezuela Imports of GE Products* 2018-2023 (TMT)



Data Source: Trade Data Monitor. *Imports more than likely to be biotechnology derived.

e) Food Aid

The World Food Program is providing school meals in Venezuela since April 2021. There is no available data on the inclusion of food derived from GE-crops through this assistance. There are no restrictions on importing biotechnology-derived products for food aid purposes.

f) Trade Barriers

On December 28, 2015, the Maduro authority enacted a law outlawing the application and research of modern biotechnology in domestic agriculture. This law prohibits the production, importation, use, release, and propagation of GE or transgenic seed. The law also prohibits granting copyright and patent protection to any seeds, conventional or otherwise. Violations may result in penalties ranging from fines to imprisonment. Imports of GE-crops or biotechnology derived processed products are not restricted.

Part B: Policy

a) Regulatory Framework

The Venezuelan Seed Law (2015)² effectively bans any transgenic or modern biotechnology agricultural research. 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 legally allowed.

The 2015 Seed Law forbids the use, application, and research of modern agricultural biotechnology. This includes the following prohibited techniques and technologies (Table 2):

² The law repealed the Law on Seeds, Animal Reproduction Material and Biological Inputs of 2002, and the Decree of 1986 that created the National Seed Service See: FAO FAOLEX Database [2015 Ley de Semillas](#). Link in Spanish only.

- 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.

Table 2. Terminology Used in Venezuela Legislation³ Related to Agricultural Biotechnology

Legal Term (Spanish)	Legal Term (English)	Legal Definition
Biotechnología Moderna	Modern Biotechnology	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 Genéticamente Modificados o Transgénicos	Genetically Modified or Transgenic Organisms	Any living or non-living organism having a novel combination of genetic material obtained through the application of modern biotechnology.
Hibrido	Hybrid	The result of controlled crossbreeding between genetically distinct and stable parents of the same species, whose generations will express different traits.
Semilla	Seed	Any botanical structure intended for the sexual or asexual reproduction of a species.
Semilla Transgénica	Transgenic Seed	Any seed that carries a novel combination of genetic material, which has been obtained through the application of modern biotechnology.
Agrobiodiversidad	Agro-biodiversity	Set of components of biological diversity for agricultural production, including food production, livelihood sustainability, and the conservation of agricultural systems.
Biopiratería	Biopiracy	Illegal appropriation and use of local genetic and biological resources, undermining national sovereignty and affecting biological diversity.
Bioseguridad	Biosafety	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.

The 2015 Seed Law forbids the production, importation, use, release, and multiplication of GE-seeds. Furthermore, the law prohibits granting copyrights and patents on any biotechnology-derived and naturally produced, non-GE seed. The Maduro authority opposes obtaining private profits from biotechnology research and commercialization of its results.

³ All terms all apply to 2015 Seed Law.

Venezuela's [Ministry of Eco-Socialism](#)⁴ (MINEC) is responsible for creating agricultural biotechnology policy and regulation enforcement. The Directorate of Biosecurity and Bio-commerce at MINEC administers and regulates all genetic resources and biosecurity issues in Venezuela. This ministry is also responsible for encouraging activities that improve biodiversity within the country, including assessing all biotechnology and biosecurity issues, assessing biological diversity information, and establishing contracts to provide access to genetic resources.

b) Approvals

There are no GE-cultivars approved for cultivation or export in Venezuela.

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 as such are prohibited according to the current law.

f) Coexistence

Not applicable.

g) Labeling and Traceability

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

h) Monitoring and Testing

A reference laboratory affiliated with INIA in the city of Maracay has been used for the detection of biotechnology products. The laboratory's operational status is presently unknown.

i) Low-Level Presence (LLP) Policy

No LLP policy.

⁴ See: [Venezuela's Ministry of Eco-Socialism](#). Link in Spanish only.

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, including agricultural trade from the United States.

m) International Treaties and Forums

Venezuela is a member of Codex Alimentarius. The Maduro representatives' Codex representation is managed by the Ministry of Industry and Commerce [National Autonomous Service for Norms, Quality, Metrology, and Technical Regulations \(SENCAMER\)](#). 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 Venezuelan authority at IPPC events.⁵

n) Related Issues

None.

Part C: Marketing

a) Public/Private Opinions

The Maduro representatives routinely conduct public campaigns against biotechnology, emphasizing the perceived dangers associated with its use in both the environment and human consumption. In contrast, private organizations like the [Venezuelan Federation of Agricultural Producers \(FEDEAGRO\)](#) and the Venezuelan Association of Seed Producers (AVESEM) openly support agricultural biotechnology and have highlighted the potential of genetic engineering to improve agricultural production and boost farmer income.

b) Market Acceptance/Studies

Despite the ban on developing and marketing agricultural biotechnology in Venezuela, local producers continue to advocate for the acceptance of genetically engineered-derived products. For instance, FEDEAGRO has previously highlighted the potential for increased agricultural production if a regulatory framework were established that would permit GE-seed cultivation. Corn, the crop that farmers would benefit the most from agricultural biotechnology, is grown exclusively from conventional seeds (either hybrid or open-pollinated). Some agricultural leaders

⁵ All aforementioned links to Venezuelan ministries and institutions are in Spanish only.

have criticized Venezuelan authorities for prohibiting the domestic use of agricultural biotechnology while permitting the importation of biotechnology-derived products and crops, thereby undermining local production.

In general, Venezuelan consumers remain unconcerned about the consumption of biotechnology-derived foods, especially as they continue to confront high food inflation and the country's highly vulnerable food security situation.⁶ Venezuela imports significant volumes GE-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 no approvals have been provided by Maduro representatives for animal biotechnology from any source. However, domestic research centers and universities have shown interest in animal biotechnology techniques to enhance the quality of cattle and goats. Presently, in vitro fertilization and embryo transfer are used in genetic improvement in cattle, and several companies offer these services commercially, using Brazilian biotechnology. The use of modern animal biotechnology techniques is less developed. Animal cloning is not currently being researched or used to improve animal genetics in public or private institutions. Venezuela has mainly utilized modern animal biotechnology to diagnose animal diseases, predominantly 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 include the poultry, swine, and livestock industries.

e) Trade Barriers

Not applicable.

⁶ For more information on the Venezuelan food security crisis, see: USDA GAIN "Analysis of the 2022 Venezuela Food Security Situation;" [VE2023-0021](#).

Part E: Policy

a) Regulatory Framework

Because there is no policy governing animal biotechnology, no Maduro authority entity oversees 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](#). However, no regulations have been implemented to address animal biotechnology research and commercialization.

b) Approvals

Not applicable.

c) Innovative Biotechnologies

No regulation currently.

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 genome-edited animals.

b) Market Acceptance, Studies

The Venezuelan livestock sector routinely uses advanced genetic improvement techniques such as in vitro fertilization (artificial insemination) and embryo transfer. As a result, the industry supports a favorable attitude toward any technological innovations that help to increase milk and beef production.

Chapter 3: Microbial Biotechnology

Part G: Production and Trade

a) Commercial Production

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

b) Exports

Venezuela exports alcoholic beverages, dairy products, and processed products that may contain microbial biotechnology-derived food ingredients. In 2023, exports of these products totaled approximately \$13.4 million, with the United States as their principal market (57 percent), followed by Chile (21 percent).

c) Imports

In 2023, Venezuela imported \$255 million of various processed products, including prepared foods, wine, beer, condiments and sauces, fruit juices, dairy products, and infant foods and enzymes—all products that may contain microbial biotechnology-derived food ingredients. The main suppliers of these products included Brazil with 24 percent market share, the United States (22 percent), Colombia (20 percent), and the European Union (15 percent).

d) Trade Barriers

None.

PART H: Policy

a) Regulatory Framework

The Ministry of Health enforces food safety standards and regulations. It is responsible for regulating food ingredients for human consumption through its [Sanitary Health Service](#) (Servicio Autónomo de Contraloría Sanitaria) and the Directorate for Food Safety and Inspection (Dirección de Inocuidad e Inspección de Alimentos y Bebidas Alcohólicas). No specific regulations involve the use of microbial biotechnology-derived ingredients.

b) Approvals

Not applicable.

c) Labeling and Traceability

No labeling regulations for microbial biotech-derived ingredients or food products have been developed in Venezuela.

d) Monitoring and Testing

Venezuela does not perform GE-testing on biotechnology-derived food products or ingredients, including in trade.

e) Additional Regulatory Requirements

No additional requirements.

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 in this report regarding plant biotechnology acceptance also applies to microbial biotechnology.

Attachments:

No Attachments