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Report Name: The Bovine Genetics Market in Venezuela

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Post: Caracas

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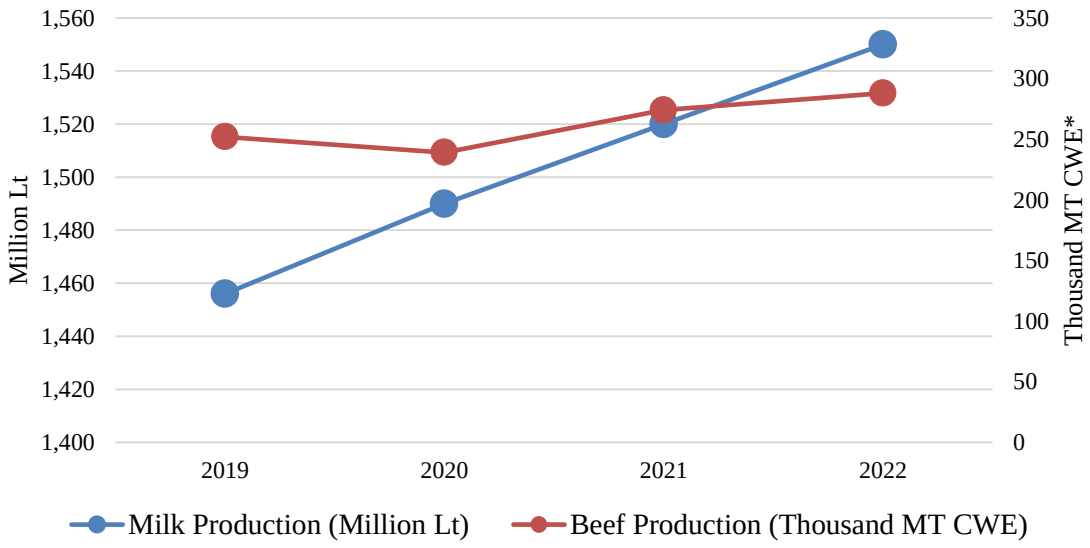
Report Highlights:

In 2022, the Venezuelan artificial insemination market was estimated at 170,000 doses per year, with 43 percent of doses imported. The recovery of milk and beef prices in Venezuela in recent years, now comparable to the rest of South America, has created incentives for producers to maintain and, in some cases, increase production. The major suppliers of bovine genetics to Venezuela are the United States (82 percent), Brazil (14 percent), and Europe (4 percent). U.S. genetics have improved the productivity, quality, and resilience of the Venezuelan herd, the profitability of the beef and dairy business, and in the case of the Brahman breed, brought climate adaptability and resistance to tropical environments.

Background on the Venezuelan Livestock Industry

The total potential area for cattle production in Venezuela is about 30 million hectares, of which an estimated 10 million hectares (33 percent) are currently in use. The western region and the Venezuelan plains comprise the most important cattle production areas. In the absence of updated official data, private sources estimate the herd size at around 12 million heads for 2022, spread over 100,000 farms. Currently, Venezuela relies on the local production of beef and milk to meet over 90 percent of its domestic demand. Since 2019, milk production in Venezuela has grown by an estimated 7 percent to 1.55 billion liters in 2022 and beef production has grown by 14 percent, reaching 288,000 MT.

Figure 1: Milk and Beef production in Venezuela, 2019 – 2022



Source: Venezuelan Livestock Industry
**CWE = Caracas Weight Equivalent*

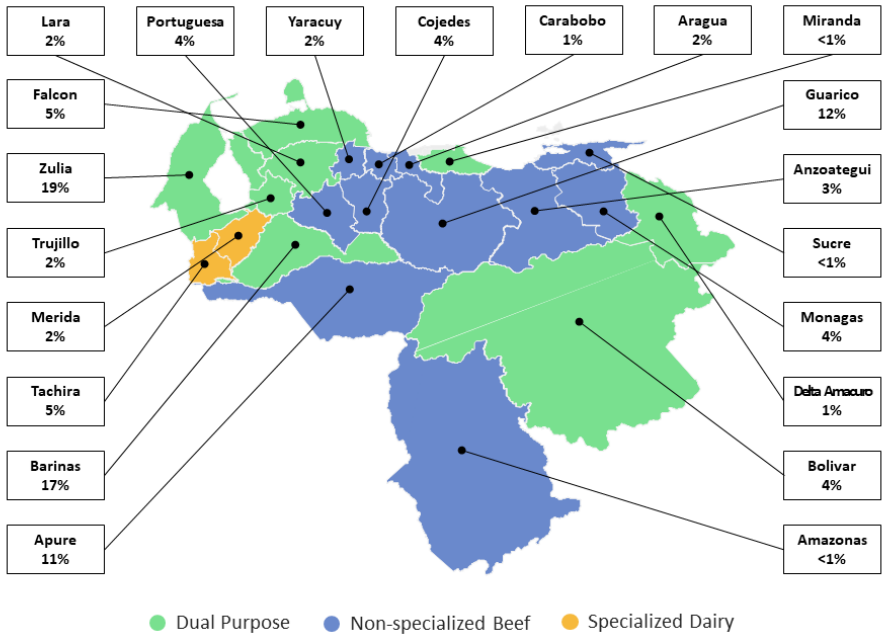
The primary cattle production systems are categorized into non-specialized beef production, dual-purpose production (milk and beef), and specialized dairy production. The majority of Venezuela's national herd is made up of dual-purpose livestock in the lowland zones of Western Venezuela. The cows are used for milk production and bull calf offspring are raised for beef production. Non-specialized ranches are concentrated in the western plains of Venezuela, south of Lake Maracaibo, and into the Andean piedmont and lowlands, representing about 42 percent of the national herd. Specialized dairy operations represent 3 percent of the national heard and are primarily located in the Andean mountain zones of western Venezuela and Lara state. Dual purpose and specialized dairy operations tend to rely on modern technology like computerized herd management systems and modern grazing and animal nutrition techniques.

Table 1: Venezuelan Livestock Production Systems

Production System (breeds)	Percentage of National Herd	Percentage of National Beef Supply	Percentage of National Dairy Supply
Non-specialized Beef (Zebu, Nelore, American Brahman)	39%	40%	3%
Dual Purpose (Hybrid Cattle: Local Breeds + American Genetics (Holstein, Brown Swiss, Brahman) Buffalo: Mediterranean and Murrah breeds)	Hybrid Cattle: 40% Buffalo: 18%	60%	Up to 95%
Specialized Dairy (Holstein, Brown Swiss, Jersey, and Carora)	3%	<1%	Up to 5%

Data Source: Venezuelan Livestock Industry

Map 1: Distribution of Bovine Heads by State and Predominant Bovine Production System in Venezuela in 2022



Source: Venezuelan Livestock Industry

The Artificial Insemination Market in Venezuela

Since the 1970s, the Venezuelan livestock industry has utilized artificial insemination (AI) to expand domestic milk and beef production. This has allowed significant advances in the genetic improvement of Venezuelan cattle using national and imported frozen semen. In the early 1980s, several private artificial insemination centers, mostly located in western Venezuela, began operations. These insemination centers applied state-of-the-art technology and produced frozen semen from domestic and imported dairy and beef sires. Some of these local AI centers also represented American AI companies such as American Breeders Service Inc., Select Sires Coop., Tri State Breeders Coop., and Sire Power Inc. Some of the AI centers founded in the 1980s are still in operation, producing semen with national and imported sires and domestically distributing imported semen primarily from the United States and Brazil. Companies dedicated exclusively to distributing imported semen also operate in Venezuela, representing American and Brazilian AI companies.

According to FAS industry sources, 3 percent of the cows in the Venezuelan heard of 3.5 million head are under AI programs. Typically, semen imports for commercial distribution are done by local artificial insemination companies, although it is also common for some Brahman breeding centers to import semen directly from American artificial insemination companies and breeders. In 2022, the Venezuelan AI market was estimated at 170,000 doses per year, with about 97,000 doses of domestic production (57 percent) and 73,000 doses of imported origin (43 percent). The major suppliers of bovine genetics to Venezuela are the United States (82 percent), Brazil (14 percent), and Europe (4 percent). Until 2015, Venezuela imported about 150,000 doses of semen annually. Since 2015, largely due to the impact of the economic crisis in the livestock sector, imports decreased to 73,000 doses per year in 2022.

Table 2: Prices per Dose of Semen in the Venezuelan Market in 2023 (USD)

Origin	Breed	Lower Price per Dose in USD*
Domestic Production	Dairy Crossbreed	$8
	Brahman	$8
	Dairy Purebreed (Holstein, Brown Swiss)	$8
	Carora	$12
Imported	Dairy Purebreed (Holstein, Brown Swiss, Jersey)	$8
	Brahman	$12
	Angus	$15
	Senepol	$15

Source: FAS Research
**Prices reflect lowest available price in the market at the time of this report*

Genetic improvement on non-specialized beef farms is based on using live sires of medium to high genetic value, produced on the farm through artificial insemination or purchased from breeding centers or specialized beef cattle ranches. The American Brahman breed has been fundamental in increasing

beef production in grass feed conditions while maintaining adaptability to the tropical climate and high reproductive performance.

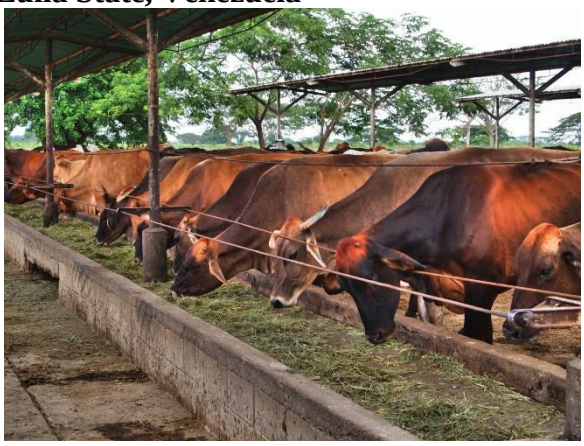
Genetic improvement in dual-purpose production systems in Venezuela combines the use of medium to high genetic quality sires under natural or controlled mating, artificial insemination, and in some cases cow selection programs under production and reproduction standards. A large part of the farms in this production system uses alternating crosses between beef breeds adapted to the tropical climate, such as Brahman or Cebu, with dairy breeds such as Holstein, Brown Swiss and Carora. This allows them to breed females with a milk production potential of between 8 to 15 kg per day with high fat and protein content, adequate reproductive ability, optimal grazing ability, and the production of males with good potential for fattening or meat production. In specialized milk production systems, genetic improvement is based on artificial insemination using sires of dairy breeds of high genetic value such as Holstein, Brown Swiss, Jersey and Carora, and the application of cow selection programs.

In specialized milk production systems, genetic improvement is based on artificial insemination using sires of dairy breeds of high genetic value such as Holstein, Brown Swiss, Jersey and Carora, and the application of cow selection programs. American dairy breeds such as Holstein, Brown Swiss, and Jersey allow high production levels while maintaining adequate reproductive performance and a high feed conversion into milk. These systems, in turn, produce purebred sires with high genetic value that are used in dual-purpose production systems. The Carora breed, the only tropical dairy breed in Venezuela, was formed from Criollo cattle crossed with the American Brown Swiss breed.

The Role of American Bovine Genetics in Venezuelan Livestock Production

The United States is currently Venezuela's main supplier of beef and dairy cattle genetics, exporting live cattle, sires, semen, and embryos to the country. Of the estimated 73,000 doses exported to Venezuela in 2022, about 60,000 doses (82 percent) correspond to American genetics of Holstein, Brown Swiss, Jersey, Brahman, and Angus breeds. The rest corresponds to bovine semen imports from Brazil and Europe. These genetics have improved the productivity, quality, and resilience of the Venezuelan herd, the profitability of the beef and dairy business, and in the case of the Brahman breed, brought climate adaptability and resistance to tropical environments. American bovine genetics continue to be the first choice when planning genetic improvement programs in Venezuela, whether in dual-purpose, beef, or specialized milk production systems. Several suppliers of American genetics are still active in the Venezuelan market, have extensive experience and a wide distribution network, and provide services for genetic improvement programs. In addition, the prices of American semen remain competitive compared to local or imported options. The American breeds with the highest market opportunities are the Brahman, Holstein, Brown Swiss and Jersey breeds, which are the most used in all livestock production systems in Venezuela. In addition, since 2016, the Venezuelan market has been open for exports of U.S. live cattle for breeding. In 2017, 190 animals were exported to Venezuela for breeding, mostly of the Brahman breed.

Photo 1: Dual Purpose Crossbred Cows in Zulia State, Venezuela

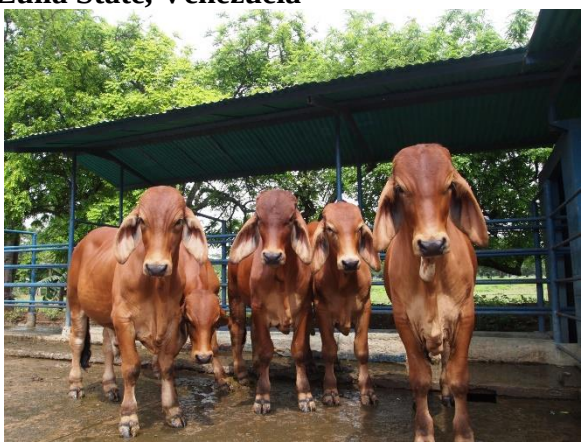


Source: FAS Caracas

Photo 2: Dual Purpose Crossbred Cow in Zulia State, Venezuela

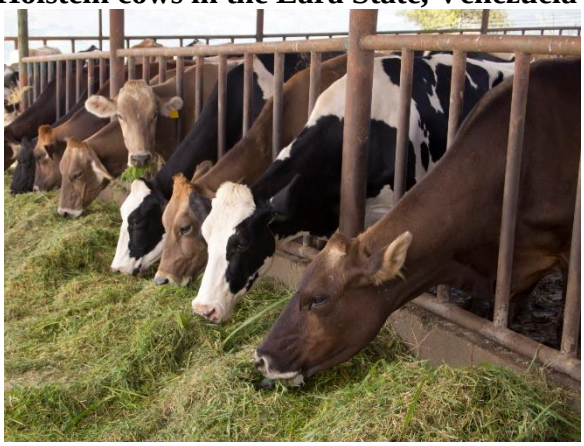
Source: FAS Caracas

Photo 3: American Red Brahman Steers in Zulia State, Venezuela



Source: FAS Caracas

Photo 4: Purebred Brown Swiss and Holstein cows in the Lara State, Venezuela



Source: FAS Caracas

Regulatory Considerations for Bovine Semen Importation into Venezuela

According to Venezuelan animal health legislation, all imports of frozen bovine and bubaline semen must be accompanied by the International Veterinary Certificate (CVI), issued by the Veterinary Authority of the exporting country, which will be valid for a period of 30 days, counted from its issuance. Semen donors must have been born and remained uninterruptedly in the country of origin, and, in the case of imported donors, they must have remained in the semen exporting country for the last 60 days prior to collection, which must be carried out in a Semen Collection and Processing Center (CCPS). The CCPS must be registered and approved by the veterinary authority of the country of origin, where no semen-transmissible diseases must have been recorded as occurring within 90 days prior to the first collection.

For more information on the Venezuelan livestock industry, please see FAS Caracas's 2022 Livestock and Products Annual Report, and FAS Caracas's 2022 Venezuelan Dairy Industry Trends and Outlook Report.

For more information on how to export to Venezuela, please see FAS Caracas's 2023 Food and Agricultural Import Regulations and Standards (FAIRS) Country Report.

The Future of the Venezuelan Livestock Genetics Market

The Venezuelan livestock industry will continue to demand the importation of bovine genetics to support milk and beef production, especially for dual-purpose and specialized milk production systems. The importation of bovine genetics makes it possible to reach productivity levels unavailable in local breeds. The recovery of milk and beef prices in Venezuela in recent years, now comparable to the rest of South America, has created incentives for producers to maintain and, in some cases, increase production. This, in turn, can encourage herd genetic improvement as one of the ways to increase milk and beef productivity.

Attachments:

No Attachments.