



Mexican Beef Cattle Breeding & Genetics Industry

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INTERBEEF MEETING, PRAGUE, CZECH REPUBLIC

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Mexican Beef Industry

Percentage of the production value by state



Bovines are considered ready for slaughter approximately 24 months after birth.

National monthly production (%)

With similar volumes, 28.5% of the national beef production is generated between January and March.



Top 10 in production volume Main producing states

Rank	State	Volume (tonnes)		Variation (%) 2012-2017
		2012	2017	
	National total	1,820,547	1,926,900	5.8
1	Veracruz	258,565	258,228	-0.1
2	Jalisco	199,620	226,858	13.6
3	San Luis Potosi	65,341	114,245	74.8
4	Chiapas	114,690	104,486	-8.9
5	Sinaloa	103,441	101,220	-2.1
6	Durango	56,836	97,631	71.8
7	Baja California	85,173	92,836	9.0
8	Michoacan	77,258	79,470	2.9
9	Chihuahua	93,317	78,237	-16.2
10	Sonora	76,982	71,955	-6.5
	Rest	689,323	701,733	1.8

Annual per capita consumption



Mexican Beef Industry

World ranking



Mexico figures among the first 10 nations in beef production; it contributes three of every 100 tonnes to the world supply.

Beef from the **United States** represents 17.4% of the world volume of this livestock product.

Adequate geographical characteristics for the production

Altitude
1,500 to 2,500 MASL

Humidity
Constant

Temperature
14 to 21 °C

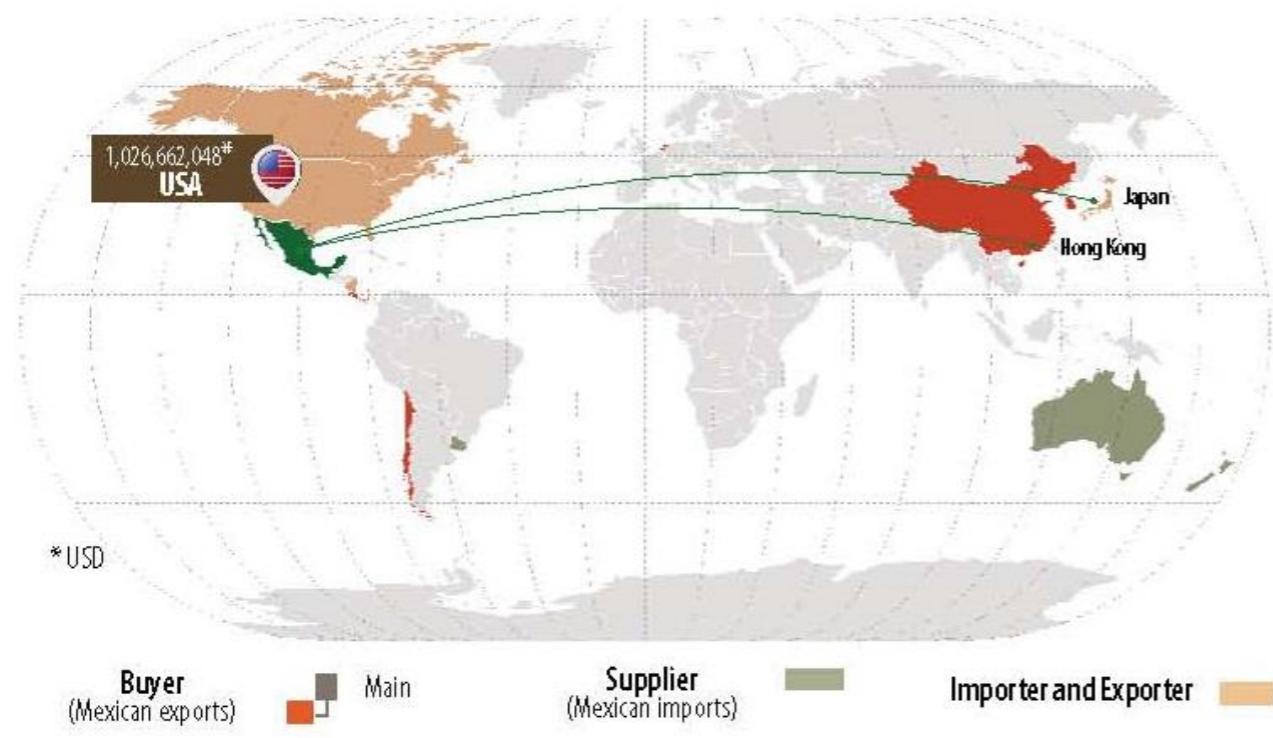
Edaphology
Fluvisols, cambisols and luvisols soils with mild slope and depth

Location

From 5 to 10km away from human settlements

Commercial origin-destination

There are eight nations from which Mexico buys this bovine product. However, the country has diversified the destination points of its exports of the species, going from 11 to 13 destinations between 2012 and 2017.



Jalisco, Tamaulipas and the central zone of the country present the best climatic and geographical conditions for the cattle raising.

National Genetic Evaluations

- Multibreed Animal Model

- % Genes
- Heterozygosity
- Recombination loss



- Contemporary groups

- Herd
- Year
- Season
- Sex



BREEDERS ASSOCIATIONS (records by trait)

TRAIT	SIMMENTAL	SIMBRAH	CHAROLAIS	CHARBRAY
Birth Weight	98,827	100,174	222,706	12,964
Weaning Weight (D,M)	83,114	87,073	177,150	10,125
Yearling Weight	41,520	51,462	113,777	5,549
Stayability	14,100	8,929	18,627	1,048
Scrotal Circumference	7,233	9,296	23,447	NA
Frame Score	43,996	40,597	109,616	9,093
Heifer Fertility	27,736	30,349		76,647

GENOMIC EVALUATION

- MULTIBREED GENOMIC EVALUATION
- SIMMENTAL vs SIMBRAH
- 2 –Step GBLUP
- 150k SNP



Simmental – Simbrah Internal Validation

TRAIT	PREDICTABILITY	ACCURACY
Birth Weight	0.47	0.49
Weaning Weight - direct	0.46	0.48
Weaning Weight – maternal	0.41	0.43
Yearling Weight	0.44	0.47
Scrotal Circumference	0.27	0.29
Frame Score	0.27	0.28
Stayability	0.41	0.43
Heifer Fertility	0.14	0.14

National Research Projects

- Resilience to Heat stress (2018-2021)
 - Simmental + Simbrah
 - 150K SNP → SS-BLUP
- Residual Feed Intake + Ultrasound (2019-2022)
 - Simmental + Simbrah + Charolais + Santa Gertrudis + Red Brangus
 - 150K SNP → SS-BLUP
- Multibreed National Genetic and Genomic Evaluations (Across breed) (2019-2021)
 - Simmental + Simbrah + Charolais + Santa Gertrudis + Red Brangus
 - 150K SNP → SS-BLUP





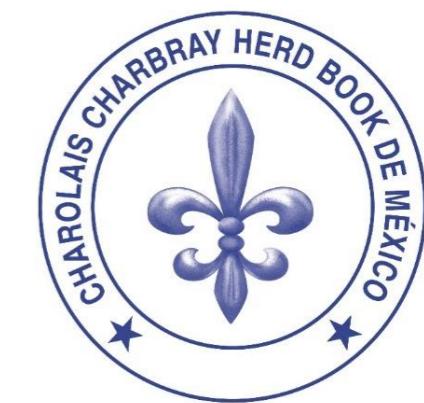
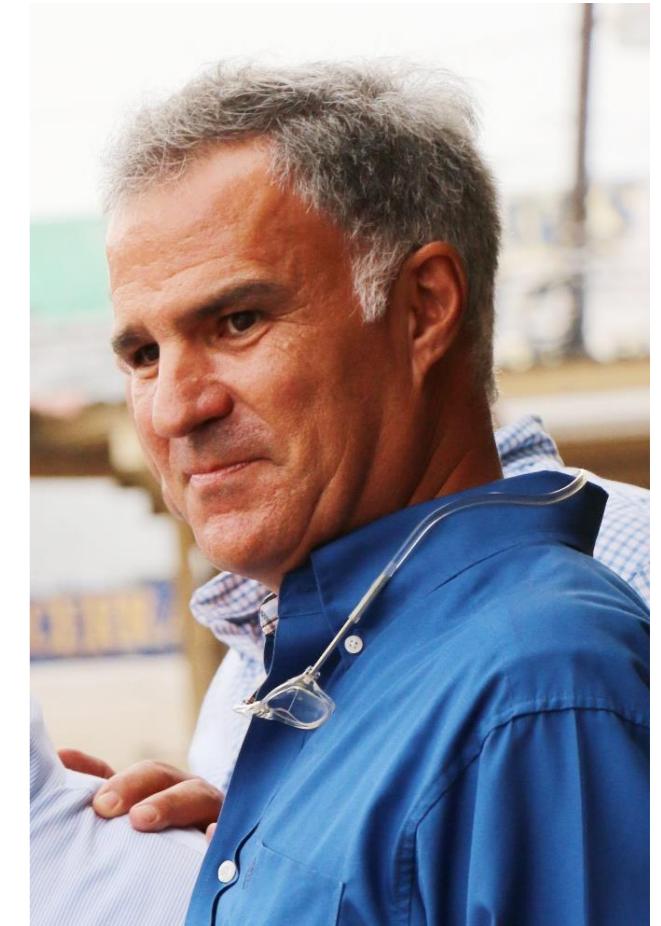
Mexican Perspectives from INTERBEEF



- Larger choice of breeding animals
- Increase in reliability
- Compare ranking (national evaluation vs Interbeef evaluation)
- Expand commercialization
- Better selection decisions (national and international in the same scale)
- Data Sharing
- Pedigree consolidation



MEXICAN BREEDERS



MEXICAN TEAM



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Thanks for your attention !!!



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