

BEEF REPORT

Overview of Livestock in Brazil
2022

Promotion

**Brazilian
Beef**

 **abiec**
Brazilian Beef Exporters Association

apexBrasil

BEEF **REPORT** 2022

Overview of Livestock in Brazil

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THE PRESIDENT'S MESSAGE

We faced many challenges over the course of 2021. The long-drawn-out Covid-19 pandemic demanded intense efforts of the entire Brazilian beef industry in order to strengthen controls and to ensure the quality and safety of its products. The good news is that, fortunately, when observing the industry figures we can identify that – once again – the business has complied with its mission and can demonstrate its standing as a leading player in the world market, with yet another record in export revenues.

In 2021, consignments of Brazilian beef came to US\$ 9.2 billion, up 8.4% over 2020. Taking only fresh beef into consideration, which accounts for over 80% of the volume exported in 2021, the negotiated amounts also attained a record of US\$ 5,170 per tonne, an 18.2% increase over 2020. This growth in the average price is the result of an important integration effort uniting the government and the private sector during the pandemic. First of all, we ensured the safety of the employees, which enabled us to continue to work in order to meet the market needs with quality.

Since the beginning of the pandemic, the industry adopted all the international protocols for control and prevention, with the precautions and transparency that are the trademarks of Brazilian beef. All the challenges that have been overcome in recent years give us the confidence to reaffirm our commitment to supplying food, with quality and safety, to the



Brazilian population and to the hundreds of countries to which we export our beef.

Furthermore, the results reinforce the projections that, in 2022, Brazilian beef exports will break a new record by attaining two-digit revenue for the first time ever. Among factors that will likely contribute to this scenario are the resumption of purchasing by China, the prospects of opening new markets in 2022 such as Canada (while others are under negotiation, for example Japan and South Korea), in addition to the restoration of the approval of plants to export beef to Russia.

This is ABIEC's commitment, aligned with the interests of its member companies, who together account for 97% of the Brazilian beef traded on the international market, striving to expand exports by reducing trade barriers and promoting Brazilian beef worldwide as an affordable, top-quality and sustainably raised product.

These concepts underpin this report, in which we present the most important data portraying the profile of Brazil's livestock farming sector in 2021.

Antonio Jorge Camardelli

President of the Association of Brazilian Beef Exporters (ABIEC)

QUANTIFICATION OF THE LIVESTOCK CHAIN

The beef industry was accrued at worth **R\$ 913.14 billion** in 2021. This amount includes all business and movements related to the industry, from amounts spent on the inputs used in livestock raising, to investments in genetics, animal health, nutrition, exports and sales in the domestic market.

Find below all the details on these figures in addition to the history that shows the entire evolution of the GDP of Brazilian livestock production.



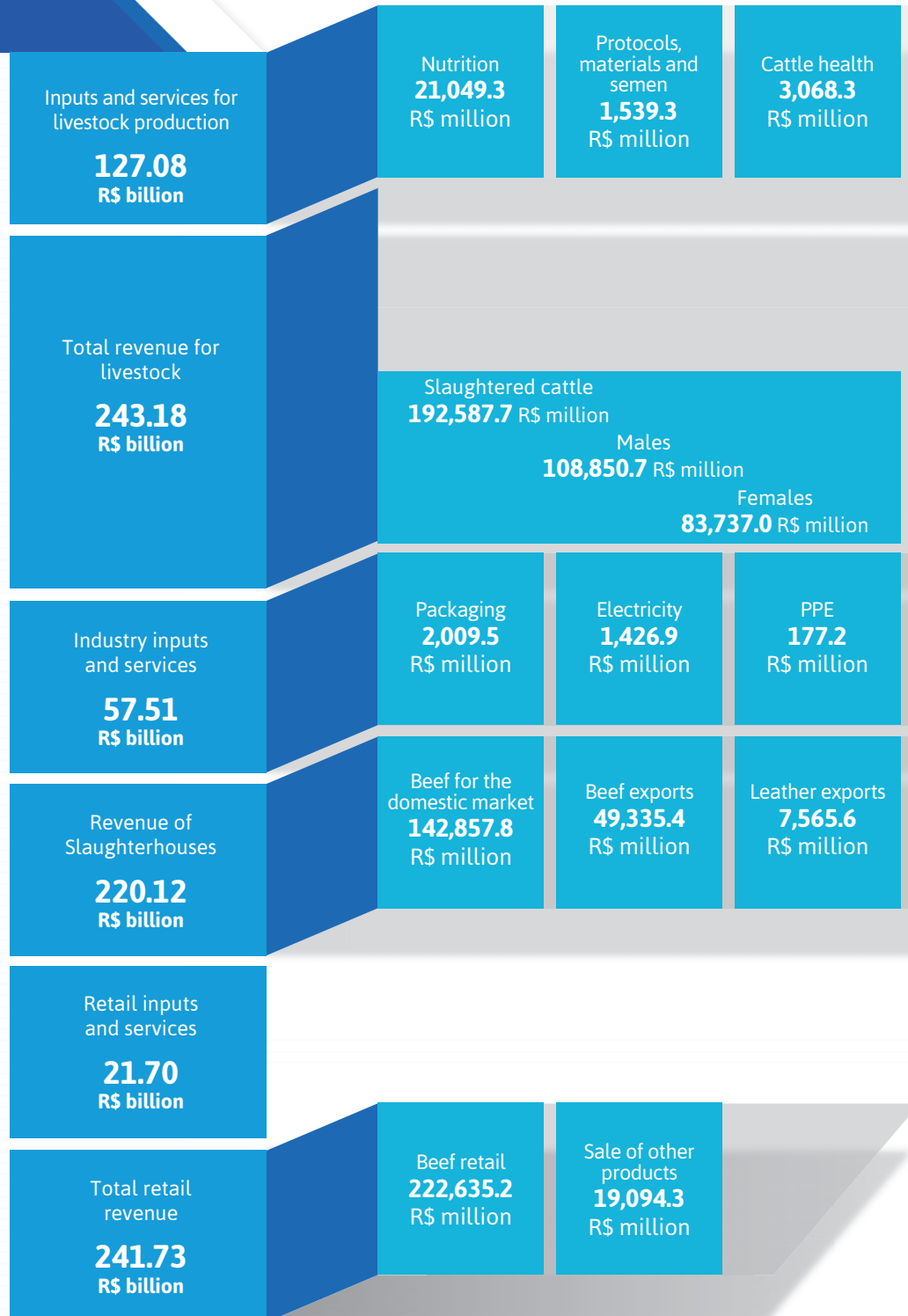


SCHEME 1

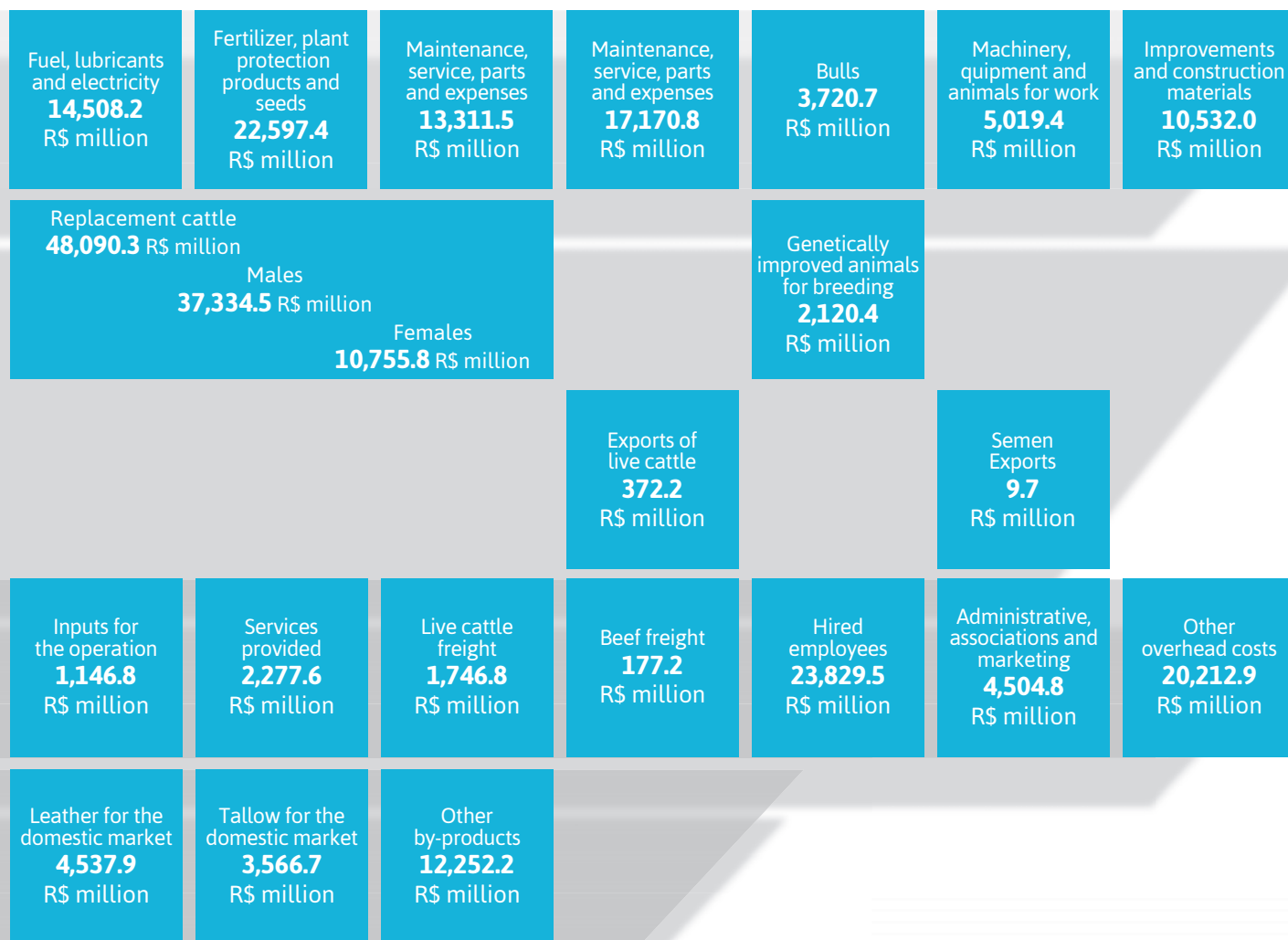
**BEEF
AGROINDUSTRIAL
SYSTEM
2021**

Agribusiness
turnover for
beef cattle
in 2021

**913.14
R\$ billion**

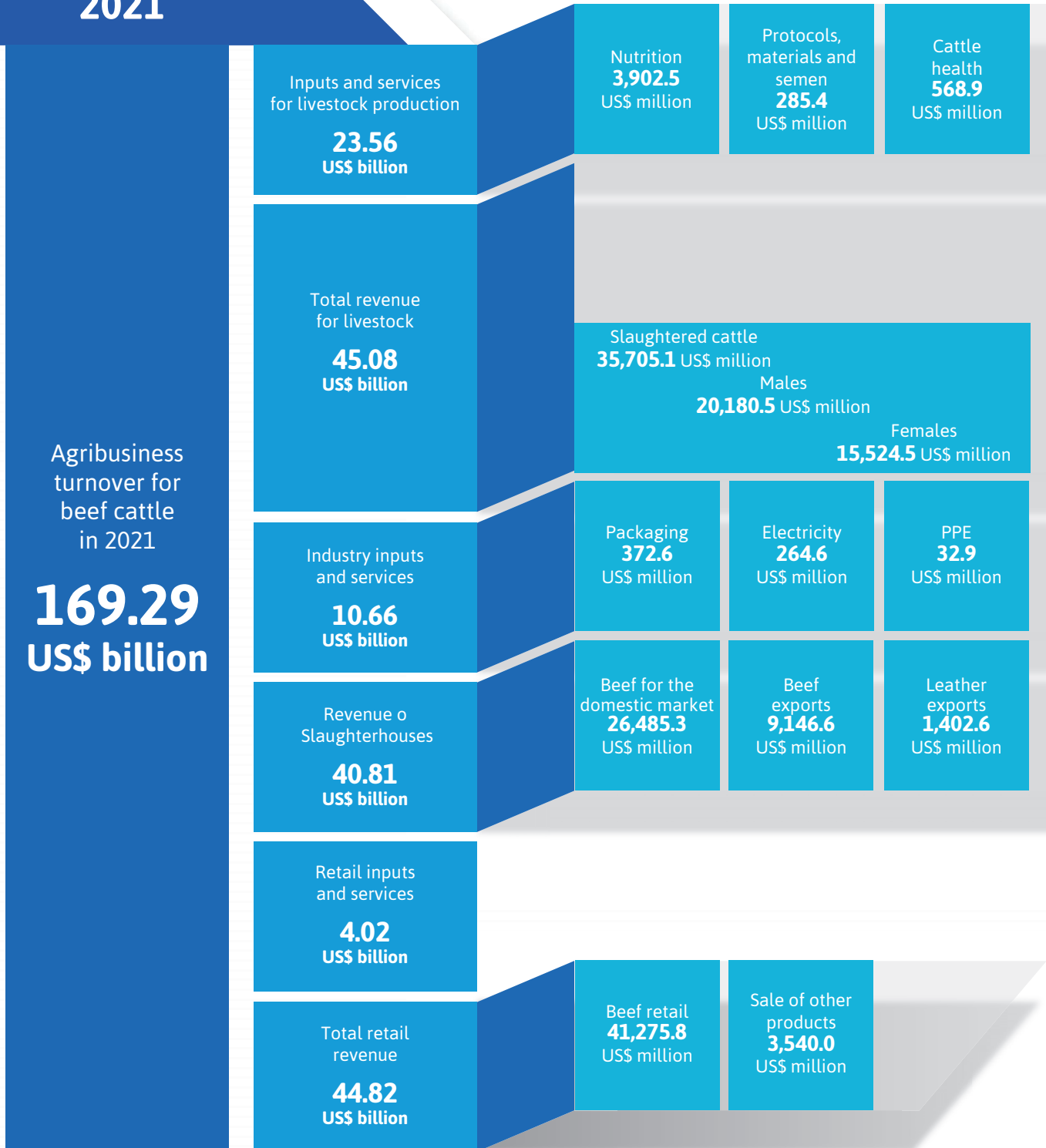


Source: Athenagro | New methodology: Developed by Athenagro, based on the livestock and technical and market indicators. Data checking: carried out using information from SINDIRAÇÕES, CONAB, CNA, SINDAN, ASBRAM, ASBIA, BNDES, Balance of slaughterhouses, FIRJAN and Athenagro | Data check: realizadas com uso de informações do SINDIRAÇÕES, CONAB, CNA, SINDAN, ASBRAM, ASBIA, BNDES, Balanço de Frigoríficos, Firjan e Athenagro | Other socio-economic impacts related to the production chain* | Union taxes and contributions** | External salaries by the income effect*** | * item not added to the movement of the production chain | ** total is already included in prices and costs | *** estimated by income effect, the total will make up other production chains.



Services. Inputs and farms	R\$ million	Demands from the inputs industry	R\$ million
Auctions and brokers	2,252.8	Advertising, marketing and events	1,331.8
Freight of inputs	6,317.0	Private studies and surveys	66.6
Technical services	461.8	Support services	419.5
Administrative and accounting services	82.6		
		Services and cost in retail	R\$ million
Transportation of live animals between farms	530.7	Employees and services	20,525.7
Cattle to be slaughtered on the farm	4,920.1	Packaging and freight in retail	716.5
		Services and inputs in butcheries	461.6
		Estimate of the social impact of the production chain*	R\$ million
		Taxes and trade union fees**	125,048.4
		External salaries created by income effect***	43,754.6
		Valuation of stock cattle	R\$ million
		Calculated by average stock in arrobs by the price of each category	40,310.19

SCHEME 1
BEEF
AGROINDUSTRIAL
SYSTEM
2021



Source: Athenagro | New methodology: Developed by Athenagro, based on the livestock and technical and market indicators. Data checking: carried out using information from Sindicatos, Conab, CNA, Sindan, asbram, Asbia, BNDES, Balance of slaughterhouses, Firjan and Athenagro | Data check: realizadas com uso de informações do Sindicatos, Conab, CNA, Sindan, Asbram, Asbia, BNDES, Balanço de Frigoríficos, Firjan e Athenagro | Other socio-economic impacts related to the production chain* | Union taxes and contributions** | External salaries by the income effect*** | * item not added to the movement of the production chain | ** total is already included in prices and costs | *** estimated by income effect, the total will make up other production chains.

Fuel, lubricants and electricity 2,689.8 US\$ million	Fertilizer, plant protection products and seeds 4,189.5 US\$ million	Maintenance, service, parts and expenses 2,467.9 US\$ million	Employees, fees and self-employment income (pro labore) 3,183.4 US\$ million	Bulls 689.8 US\$ million	Machinery, equipment and animals for work 930.6 US\$ million	Improvements and construction materials 1,952.6 US\$ million
Replacement cattle 8,915.8 US\$ million				Genetically improved animals for breeding 393.1 US\$ bilhões		
Males 6,921.7 US\$ million						
Females 1,994.1 US\$ million						
			Live cattle exports 69.0 US\$ million		Semen Exports 1.8 US\$ million	
Inputs for the operation 212.6 US\$ million	Services provided 422.3 US\$ million	Live cattle freight 323.8 US\$ million	Beef freight 32.9 US\$ million	Hired employees 4,417.9 US\$ million	Administrative, associations and marketing 835.2 US\$ million	Other overhead costs 3,747.4 US\$ million
Leather for the domestic market 841.3 US\$ million	Tallow for the domestic market 661.3 US\$ million	Other by-products 2,271.5 US\$ million				

Services. Inputs and farms	US\$ million	Demands from the inputs industry	US\$ million
Auctions and brokers	417.6	Advertising, marketing and events	246.9
Freight of inputs	1,171.1	Private studies and surveys	12.3
Technical services	85.6	Support services	77.8
Administrative and accounting services	15.3		
		Services and cost in retail	US\$ million
Transportation of live animals between farms	98.4	Employees and services	3805.4
Cattle to be slaughtered on the farm	912.2	Packaging and freight in retail	132.8
		Services and inputs in butcheries	85.6
Estimate of the social impact of the production chain*			US\$ million
		Taxes and trade union fees**	23,183.5
		External salaries created by income effect***	8,112.0

Valuation of stock cattle	US\$ million
Calculated by average stock in arrobs by the price of each category	28,771.80

Table 1 History of Beef cattle GDP - R\$

	Billion	2007 197.1	2008 255.9	2009 279.4	2010 343.2	2011 356.3	2012 386.2
Demands from the inputs industry	R\$ billion	0.7	0.9	0.8	0.7	0.8	0.9
Advertising, marketing and events	R\$ million	511.6	694.3	598.7	560.0	622.2	660.0
Private studies and surveys	R\$ million	25.6	34.7	29.9	28.0	31.1	33.0
Support services	R\$ million	161.1	218.7	188.6	176.4	196.0	207.9
Inputs and services for livestock production	Billion	20.9	22.9	25.6	30.0	29.0	31.6
Nutrition	R\$ million	7,272.2	11,521.8	10,437.5	8,497.9	9,924.3	11,052.9
Protocols, materials and semen	R\$ million	261.2	360.9	341.3	392.7	452.6	430.6
Animal health	R\$ million	1,847.7	1,967.3	1,1955.4	2,059.6	2,141.4	2,140.2
Fuel, lubricants and electricity	R\$ million	4,867.8	5,971.1	5,252.3	5,285.2	5,524.0	5,765.8
Fertilizer , plant protection products and seeds	R\$ million	9,662.2	11,658.4	9,738.7	9,911.2	10,627.3	10,914.2
Maintenance, service, parts and expenses	R\$ million	4,035.5	4,476.6	4,648.6	5,052.9	5,443.0	5,831.5
Employees, fees and self-employment income (pro labore)	R\$ million	5,085.8	5,697.6	6,331.8	7,159.0	7,600.6	8,677.2
Bulls	R\$ million	1,054.5	1,677.8	1,094.7	1,140.4	1,292.2	1,379.0
Machinery, equipment and animals for work	R\$ million	1,422.6	2,263.5	1,476.9	1,538.4	1,743.3	1,860.4
Improvements and construction materials	R\$ million	2,985.0	4,749.3	3,098.9	3,228.0	3,657.8	3,903.5
Services, Inputs and farms	Million	3,479.9	5,143.5	4,577.2	4,456.5	5,124.4	5,451.7
Auctions and brokers	R\$ million	337.9	465.7	474.7	583.5	616.3	610.8
Freight of inputs	R\$ million	1,941.9	3,090.7	2,584.7	2,247.7	2,651.1	3,008.1
Technical services	R\$ million	78.4	108.3	102.4	117.8	135.8	129.2

2013 465.6	2014 513.7	2015 574.4	2016 539.3	2017 605.7	2018 622.1	2019 715.3	2020 715.3	2021 913.1
0.8	0.9	1.0	1.0	1.0	1.1	1.2	1.5	1.8
636.6	685.6	795.5	780.2	735.5	844.4	897.6	1,106.4	1,331.8
31.8	34.3	39.8	39.0	42.2	28.0	44.9	55.3	66.6
200.5	216.0	245.8	245.8	266.0	176.4	282.7	348.5	419.5
35.9	39.9	40.4	47.6	46.7	54.2	55.5	57.9	57.5
10,149.8	11,151.2	13,909.1	12,569.1	11,485.3	14,727.6	897.6	17,711.4	21,049.3
472.6	592.7	687.8	731.4	661.8	689.5	44.9	1,103.3	1,539.3
2,185.4	2,279.9	2,347.9	2,582.6	2,732.3	176.4	2,866.3	2,851.7	3,068.3
6,202.3	6,766.9	7,892.5	8,245.5	8,164.4	176.4	9,357.6	10,900.7	14,508.2
10,811.6	11,443.3	12,419.3	12,925.8	12,322.1	176.4	12,794.0	18,356.2	22,597.4
6,289.7	6,763.4	7,281.1	8,120.4	8,218.1	176.4	8,609.2	10,403.6	13,311.5
9,573.0	10,401.8	11,424.4	12,830.6	13,549.8	176.4	13,776.2	15,646.3	17,170.8
1,367.7	1,450.1	1,820.5	1,778.6	1,644.8	176.4	2,000.4	3,136.8	3,720.7
1,845.1	1,956.3	2,455.9	2,339.4	2,218.9	176.4	2,698.6	4,231.7	5,019.4
3,871.4	4,104.9	5,153.2	5,034.6	4,655.9	176.4	5,662.3	8,879.2	10,532.0
5,494.5	6,352.1	7,555.9	7,563.4	7,083.7	8,021.4	8,668.0	11,078.8	14,565.0
10,149.8	11,151.2	13,909.1	1,094.0	975.9	1,095.2	1,195.9	1,584.0	2,252.8
472.6	592.7	687.8	3,531.0	3,302.4	3,302.4	4,184.8	5,087.5	6,317.0
2,185.4	2,279.9	2,347.9	219.4	198.5	198.5	235.3	331.0	461.8

Administrative and accounting services	R\$ million	24.5	27.0	30.7	34.8	36.9	42.2
Transportation of live animals between farms	R\$ million	281.0	322.0	302.1	247.8	288.4	296.3
Cattle to be slaughtered on the farm	R\$ million	816.3	1,129.8	1,082.7	1,224.9	1,396.0	1,365.0
Total revenue for livestock	Billion	36.9	50.9	52.0	64.0	67.1	66.9
Replacement cattle	R\$ Million	7,470.9	10,854.0	10,344.9	10,966.2	12,959.3	12,785.8
Males	R\$ million	5,974.6	8,671.7	8,232.5	8,600.3	10,065.5	9,946.4
Females	R\$ million	1,496.3	2,182.4	2,112.4	2,365.8	2,893.8	2,839.5
Genetically improved animals for breeding	R\$ Million	-264.5	-578.0	-54.0	90.0	129.3	41.3
Slaughtered cattle	R\$ Million	29,970.1	39,915.2	40,865.9	51,832.2	53,333.3	53,007.8
Males	R\$ million	21,785.1	28,900.9	28,823.3	35,899.3	35,889.3	34,592.8
Females	R\$ million	7,422.0	11,014.3	12,042.7	15,933.0	17,444.0	18,414.9
Live cattle Exports	R\$ million	500.2	739.8	877.0	1,158.1	751.6	1,140.4
Semen Exports	R\$ million	1.7	3.6	1.8	2.6	2.3	3.0
Industry inputs and services	Billion	20.9	22.9	25.6	30.0	29.0	31.6
Packaging	R\$ million	548.7	609.7	664.8	787.1	766.6	862.0
Electricity	R\$ million	683.6	730.6	787.3	857.0	786.0	825.9
PPE	R\$ million	58.8	65.0	71.6	84.6	81.7	89.6
Inputs for the operation	R\$ million	332.9	364.9	446.0	547.7	523.1	610.0
Services provided	R\$ million	661.2	724.8	885.7	1,087.8	1,039.1	1,211.5
Live cattle freight	R\$ million	836.9	894.3	963.7	1,049.1	962.1	1,011.0
Beef freight	R\$ million	58.8	65.0	71.6	84.6	81.7	89.6

46.7	50.7	55.5	62.6	66.3	67.1	71.1	75.5	82.6
299.0	329.1	439.9	463.8	493.3	502.0	530.7	519.8	530.7
1,430.3	1,781.1	2,101.0	2,192.6	2,047.3	2,165.8	2,450.2	3,481.1	4,920.1

73.9	96.9	108.8	118.6	106.0	120.0	130.3	171.8	243.1
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13,031.0	11,151.2	13,909.1	1,094.0	975.9	1,095.2	1,195.9	1,584.0	2,252.8
10,143.2	592.7	687.8	3,531.0	3,302.4	3,302.4	4,184.8	5,087.5	6,317.0
2,887.7	2,279.9	2,347.9	219.4	198.5	198.5	235.3	331.0	461.8

161.0	544.4	395.1	506.3	461.2	244.8	119.6	389.0	2,120.4
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59,139.8	77,484.7	84,910.5	93,119.2	82,920.4	95,233.9	103,495.5	136,443.0	192,587.7
37,747.5	48,690.3	52,810.0	57,471.2	50,254.7	59,424.0	62,046.8	79,095.5	108,850.7
21,392.3	28,794.3	32,100.5	35,648.0	32,665.8	35,809.9	41,447.7	57,347.5	83,737.0

1,561.5	1,585.2	686.5	715.1	883.9	1,960.5	1,403.0	1,138.5	372.2
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2.6	3.2	4.8	5.8	7.3	7.3	7.3	9.0	9.7
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35.9	39.9	40.4	47.6	46.7	54.2	55.5	57.9	57.5
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1,041.1	1,162.7	1,148.4	1,395.4	1,316.9	1,536.4	1,700.9	1,965.6	2,009.5
968.8	1,105.7	1,157.3	1,328.1	1,333.4	1,629.7	1,609.3	1,428.9	1,426.9
103.9	115.5	115.0	136.8	131.0	153.3	161.6	177.0	177.2
706.8	793.2	814.3	998.0	1,045.0	1,168.4	1,181.8	1,156.6	1,146.8
1,403.9	1,575.4	1,617.4	1,982.1	2,075.5	2,320.7	2,347.2	2,297.1	2,277.6
1,185.9	1,353.5	1,416.7	1,625.8	1,632.4	1,995.0	1,970.1	1,749.2	1,746.8
103.9	115.5	115.0	136.8	131.0	153.3	161.6	177.0	177.2

Hired employees	R\$ million	8,846.0	9,753.4	10,771.9	12,620.2	12,258.9	13,253.8
Administrative, associations and marketing	R\$ million	1,372.4	1,506.4	1,802.3	2,193.0	2,101.6	2,415.5
Other overhead costs	R\$ million	7,503.5	8,273.2	9,137.1	10,704.8	10,398.4	11,242.3
Revenue of Slaughterhouses	R\$ Billion	42.1	52.9	55.9	71.6	71.7	74.9
Beef for the domestic market	R\$ million	22,084.8	32,060.9	37,792.8	49,898.2	49,003.9	48,790.4
Beef exports	R\$ million	8,573.6	9,597.0	8,129.2	8,416.7	8,947.1	11,250.0
Leather exports	R\$ million	4,236.4	3,411.3	2,254.0	3,050.5	3,388.2	4,049.0
Leather for the domestic market	R\$ million	2,221.9	1,764.2	825.5	1,822.7	2,081.7	2,149.8
Tallow for the domestic market	R\$ million	527.1	877.1	740.5	842.3	968.0	977.1
Other by-products	R\$ million	4,540.8	5,278.8	6,236.7	7,620.5	7,338.4	7,744.8
Retail inputs and services	Billion	4.7	5.2	6.5	8.2	7.9	9.3
Employees and services	R\$ million	3,705.6	4,147.9	5,214.8	6,779.6	6,561.8	7,963.7
Packaging and freight in retail	R\$ million	747.6	790.0	892.0	962.8	852.9	845.3
Services and inputs in butcher shops	R\$ million	319.3	344.5	430.3	525.3	488.0	530.8
Total retail revenue	Billion	49.7	67.3	89.5	115.3	113.0	115.1
Beef retail	R\$ Billion	41,247.5	57,816.5	76,832.2	100,086.8	98,326.9	99,381.7
Sale of other products	R\$ Billion	8,480.8	9,519.5	12,679.0	15,285.4	14,724.5	15,775.5
Estimate of the social impact of the production chain*	Billion	40.0	51.9	56.5	68.2	69.3	72.1
Taxes and trade union fees**	R\$ Billion	29,292.9	38,016.0	41,330.5	49,920.8	50,675.0	52,653.6
External salaries created by income effect***	R\$ Billion	10,767.2	13,973.5	15,191.8	18,349.4	18,626.6	19,353.8
Stock Valuation (In Cattle)	Billion	19.5	43.6	-3.4	16.7	25.0	-3.6

* item not added to the movement of the production chain / ** total is already included in prices and costs / *** estimated by income effect, the total will make up other production chains

14,948.4	16,551.6	16,689.7	19,551.7	18,981.5	22,057.7	22,616.1	24,033.2	23,829.5
2,785.3	3,118.2	3,191.1	3,880.5	4,013.3	4,515.4	4,577.3	4,543.3	4,504.8
12,679.7	14,039.5	14,156.7	16,584.3	16,100.7	18,710.0	19,183.7	20,385.7	20,212.9

85.2	106.5	118.4	130.9	120.1	134.8	140.2	169.6	220.1
53,252.9	68,417.8	77,061.9	88,571.4	79,748.4	89,586.2	90,885.8	105,441.8	142,857.8
14,415.0	16,673.7	19,364.3	18,618.5	19,397.4	24,107.5	30,298.3	44,022.8	49,335.4
5,407.9	6,903.0	7,449.1	7,070.1	6,030.1	5,202.6	4,533.4	4,961.3	7,565.6
2,663.4	4,070.7	3,907.4	3,752.1	2,963.2	1,883.8	934.3	848.9	4,537.9
1,005.2	1,023.1	1,056.0	1,483.2	1,255.1	1,438.9	1,441.8	2,269.3	3,566.7
8,495.2	9,506.1	9,624.5	11,486.0	10,752.3	12,583.1	12,185.5	12,091.8	12,252.2

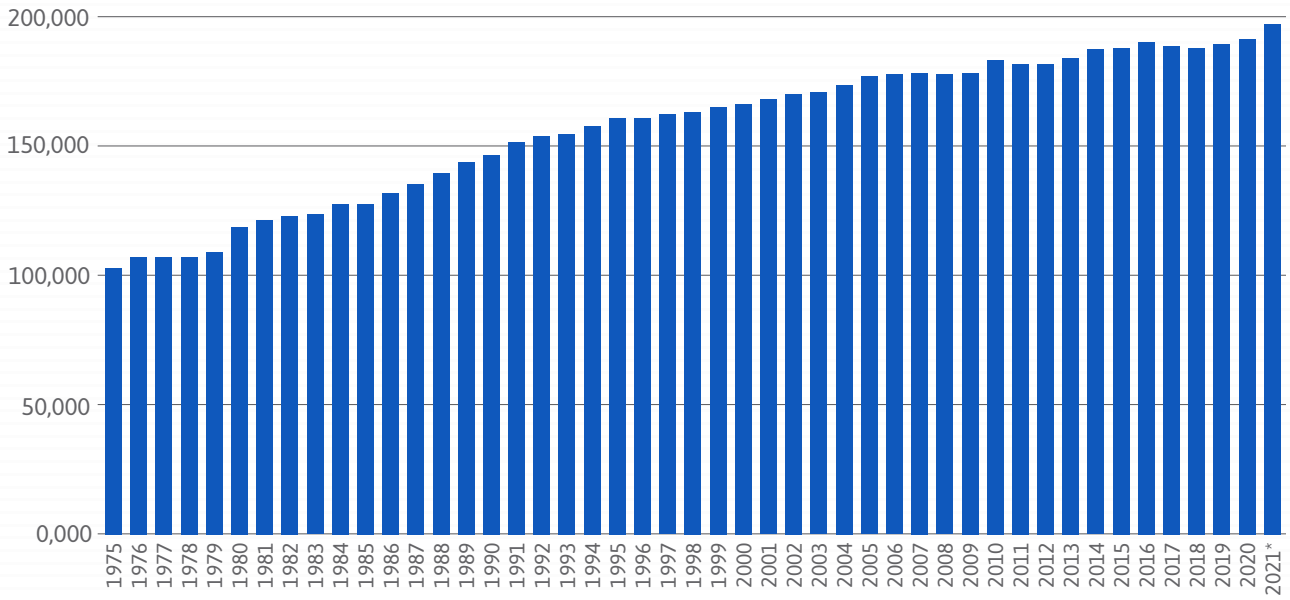
11.2	13.1	13.3	16.9	17.5	20.2	20.3	20.0	21.7
9,788.2	11,509.3	12,130.0	15,074.2	15,842.1	17,863.9	18,616.2	18,662.3	20,525.7
880.4	989.3	1,067.6	1,157.7	1,221.6	1,535.0	1,262.4	848.6	716.5
546.8	605.2	631.4	720.2	783.4	894.9	748.7	546.7	461.6

120.8	144.9	158.1	184.4	174.7	194.0	186.8	190.1	241.7
104,212.5	127,232.7	140,583.2	163,282.7	154,000.8	170,108.6	164,723.1	170,547.5	222,635.2
16,624.5	17,677.9	17,557.8	21,174.6	23,893.2	23,893.2	22,085.3	19,588.0	19,094.3

77.9	93.7	103.6	115.8	108.8	122.2	125.9	144.9	168.8
56,992.2	68,584.7	75,784.6	84,678.4	79,556.0	89,380.4	92,084.4	105,999.1	125,048.4
20,948.6	25,209.6	27,856.1	31,125.2	29,242.3	32,853.5	33,847.4	38,962.0	43,754.6

8.4	55.5	62.8	15.0	-30.2	2.4	40.3	155.1	15.8
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Graph 1 Brazilian Herd (cattle) - million heads



* Preliminar

Source: Athenagro, dados IBGE (Censo, PPM, PPT), elaboração Abiec





LIVESTOCK IN BRAZIL

In 2021, the Brazilian herd was estimated in 196.47 million head, of which 39.14 million head were slaughtered. The volume of beef produced was 9.71 million tonnes CWE. Of this total, 25.51% or 2.48 million CWE were exported, whereas 7.24 million

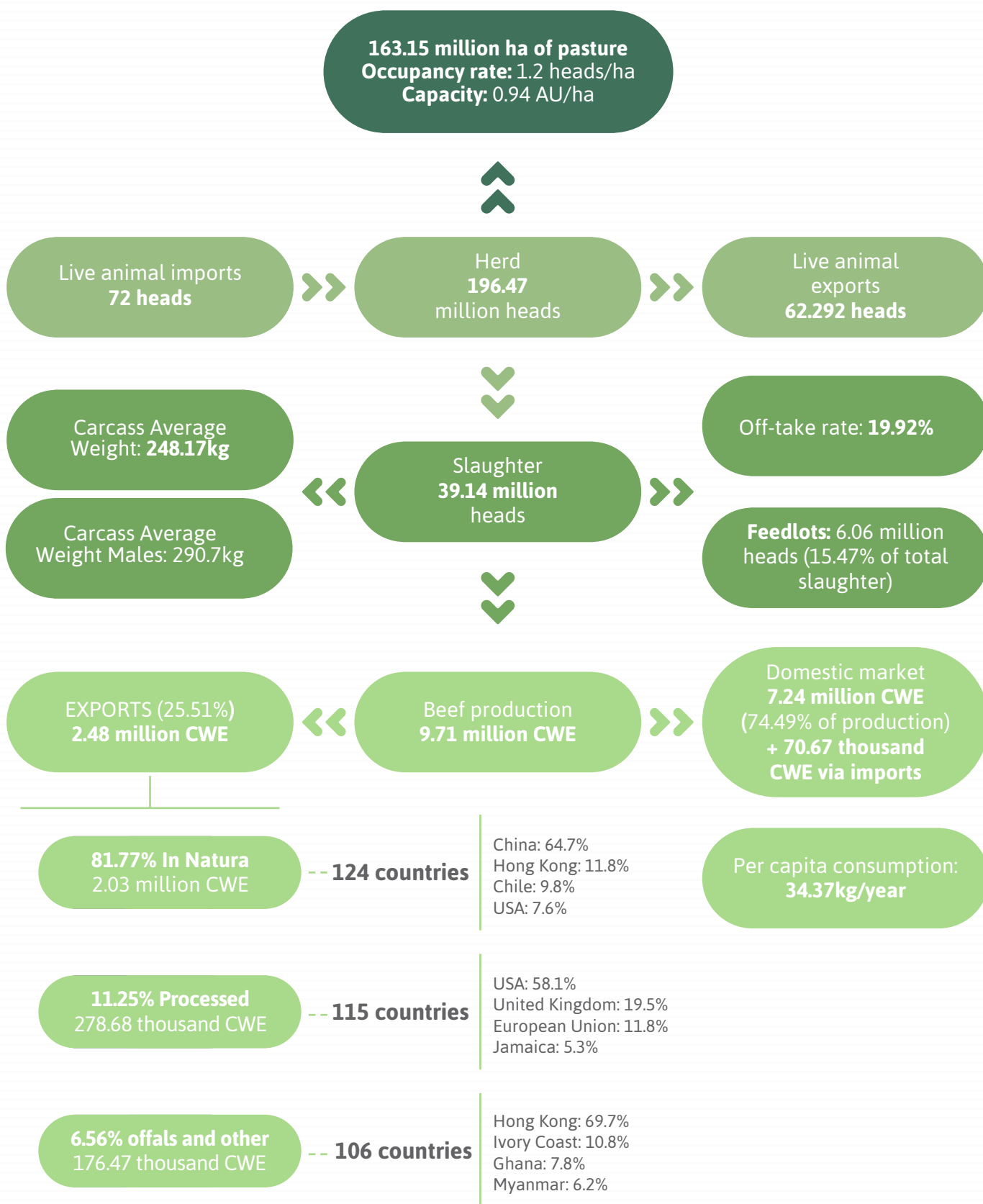
CWE, equivalent to 74.49%, remained in the domestic market.

See below for further data on the evolution of herds per State, and other data on the performance of Brazilian livestock production.

Methodology

Up until the 2020 edition, the number of head of cattle in Brazil's herd was published in accordance with the Municipal Livestock Survey produced by Brazil's official statistical agency IBGE (the Brazilian Institute of Geography and Statistics). The behavior of the market from 2019 to 2021 proved that it is not feasible for there to be a herd above 215 million head in the territory of Brazil, a situation often discussed by livestock experts. Brazil's official data and those of several other studies carried out by private enterprise underpin an increasing acceptance that Brazil's herd should be closer to 175 to 180 million head, rising to 190 million in certain months of the year.

Therefore, beginning with the 2021 edition, Brazil's herd will be presented in accordance with the following methodology, as suggested by Athenagro Consultoria. Baseline herd, 2017 census, varying by head per municipality based on the IBGE Municipal Livestock Survey, also taking into account 50% of the total number slaughtered in the inspected market (federal, state-level and municipal inspection systems), obtained by IBGE's Quarterly Livestock Survey.



Source: Abiec, Secex/Ministério da Economia, IBGE, Rally da Pecuária, Athenagro

Table 3 Evolution of Brazilian cattle - Million Heads

According to Athenagro, based on Census, PPM and PPT data (The Brazilian Institute of Geography and Statistics)									
Million heads	2001	2002	2003	2004	2005	2006	2007	2008	2009
Brazil	167,534	169,329	170,190	173,387	176,508	176,657	177,530	177,227	178,314
Rondônia	7,956	8,025	8,112	8,308	8,511	8,560	8,610	9,681	9,759
Acre	1,597	1,623	1,645	1,684	1,719	1,733	1,750	2,107	2,129
Amazonas	1,078	1,095	1,105	1,131	1,153	1,163	1,180	1,346	1,273
Roraima	0,510	0,511	0,510	0,516	0,528	0,533	0,541	0,680	0,684
Pará	13,038	13,221	13,309	13,612	13,920	13,968	14,043	15,071	15,160
Amapá	0,075	0,076	0,075	0,076	0,077	0,078	0,079	0,037	0,037
Tocantins	6,272	6,361	6,395	6,472	6,590	6,596	6,617	6,575	6,603
Maranhão	5,390	5,465	5,502	5,621	5,752	5,793	5,858	5,479	5,521
Piauí	1,534	1,558	1,571	1,608	1,645	1,658	1,681	1,523	1,538
Ceará	2,056	2,067	2,074	2,107	2,147	2,153	2,180	1,958	1,982
Rio Grande do Norte	0,855	0,859	0,864	0,882	0,901	0,904	0,914	0,797	0,802
Paraíba	1,286	1,291	1,296	1,317	1,345	1,350	1,365	1,068	1,080
Pernambuco	1,784	1,801	1,812	1,833	1,862	1,872	1,895	1,331	1,339
Alagoas	0,881	0,891	0,887	0,899	0,917	0,919	0,927	0,800	0,808
Sergipe	0,858	0,862	0,860	0,873	0,888	0,893	0,906	0,920	0,927
Bahia	9,746	9,850	9,859	10,028	10,212	10,213	10,310	8,560	8,586
Minas Gerais	19,441	19,586	19,618	19,948	20,311	20,316	20,492	20,218	20,305
Espírito Santo	1,706	1,709	1,712	1,741	1,777	1,785	1,806	1,715	1,721
Rio de Janeiro	1,832	1,843	1,845	1,877	1,913	1,922	1,939	1,989	2,009
São Paulo	10,193	10,281	10,312	10,483	10,607	10,577	10,589	8,669	8,766
Paraná	8,830	8,913	8,940	9,088	9,221	9,189	9,190	8,704	8,765
Santa Catarina	2,961	2,990	2,997	3,054	3,106	3,121	3,151	3,749	3,787
Rio Grande do Sul	10,963	11,038	11,071	11,238	11,411	11,369	11,423	11,922	12,048
Mato Grosso do Sul	19,616	19,923	20,105	20,541	20,840	20,775	20,797	20,167	20,323
Mato Grosso	19,596	19,808	19,941	20,386	20,788	20,840	20,828	24,557	24,716
Goiás	17,402	17,602	17,690	17,982	18,284	18,295	18,378	17,536	17,652
Distrito Federal	0,079	0,080	0,081	0,081	0,083	0,082	0,082	0,068	0,070

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
182,309	181,507	181,448	183,476	186,861	187,517	189,418	188,152	187,546	188,947	190,809	196,468
10,018	10,004	10,036	10,178	10,381	10,487	10,695	10,624	10,671	10,779	10,885	11,253
2,190	2,183	2,176	2,207	2,266	2,289	2,337	2,326	2,323	2,368	2,391	2,475
1,313	1,307	1,306	1,320	1,351	1,357	1,372	1,357	1,360	1,376	1,389	1,433
0,699	0,701	0,704	0,713	0,730	0,732	0,746	0,740	0,740	0,749	0,756	0,781
15,530	15,473	15,513	15,716	16,062	16,151	15,681	15,580	15,581	15,726	15,881	16,288
0,038	0,038	0,038	0,039	0,040	0,040	0,040	0,040	0,040	0,040	0,040	0,041
6,756	6,750	6,733	6,818	6,961	6,976	7,093	7,049	7,034	7,062	7,132	7,349
5,646	5,616	5,625	5,703	5,824	5,870	5,938	5,881	5,884	5,956	6,015	6,206
1,563	1,548	1,546	1,563	1,586	1,585	1,593	1,565	1,550	1,559	1,574	1,614
2,036	2,026	2,038	2,056	2,090	2,095	2,106	2,071	2,055	2,086	2,107	2,165
0,824	0,813	0,810	0,811	0,827	0,832	0,838	0,823	0,824	0,832	0,840	0,864
1,106	1,098	1,102	1,103	1,125	1,135	1,150	1,140	1,141	1,155	1,166	1,203
1,370	1,369	1,375	1,377	1,398	1,403	1,422	1,403	1,395	1,412	1,426	1,467
0,828	0,825	0,828	0,834	0,852	0,855	0,864	0,852	0,853	0,863	0,871	0,897
0,951	0,942	0,945	0,954	0,977	0,975	0,986	0,973	0,964	0,972	0,981	1,009
8,738	8,689	8,690	8,767	8,949	8,958	9,042	8,927	8,880	8,941	9,029	9,283
20,722	20,600	20,669	20,889	21,318	21,335	21,608	21,426	21,256	21,422	21,633	22,261
1,760	1,750	1,752	1,777	1,813	1,816	1,827	1,807	1,792	1,815	1,833	1,886
2,054	2,051	2,054	2,084	2,125	2,135	2,151	2,139	2,152	2,175	2,196	2,266
8,863	8,793	8,754	8,825	8,951	8,945	9,088	9,050	9,047	9,084	9,173	9,443
8,936	8,860	8,850	8,942	9,106	9,093	9,221	9,144	9,118	9,167	9,258	9,526
3,866	3,841	3,841	3,890	3,969	4,008	4,075	4,059	4,046	4,094	4,134	4,269
12,311	12,236	12,214	12,303	12,530	12,559	12,678	12,506	12,440	12,432	12,554	12,889
20,700	20,573	20,415	20,641	20,983	21,045	21,362	21,284	21,158	21,192	21,401	22,023
25,355	25,332	25,335	25,586	26,018	26,158	26,584	26,504	26,396	26,690	26,953	27,801
18,068	18,021	18,032	18,301	18,558	18,611	18,860	18,813	18,777	18,933	19,119	19,706
0,069	0,068	0,069	0,071	0,070	0,071	0,069	0,068	0,068	0,068	0,069	0,070

Source: Athenagro, dados IBGE (Censo, PPM, PPT)

Table 4 Herd suitability and number of properties per State

State	Estimated herd in 2021 (heads)	State's share in the Brazilian herd in 2021
Rondônia	11,252,548	5.73%
Acre	2,475,307	1.26%
Amazonas	1,432,694	0.73%
Roraima	780,554	0.40%
Pará	16,288,132	8.29%
Amapá	41,203	0.02%
Tocantins	7,348,595	3.74%
Maranhão	6,205,682	3.16%
Piauí	1,613,846	0.82%
Ceará	2,164,578	1.10%
Rio Grande do Norte	863,881	0.44%
Paraíba	1,202,911	0.61%
Pernambuco	1,467,476	0.75%
Alagoas	897,248	0.46%
Sergipe	1,008,837	0.51%
Bahia	9,282,753	4.72%
Minas Gerais	22,261,360	11.33%
Espírito Santo	1,885,732	0.96%
Rio de Janeiro	2,266,017	1.15%
São Paulo	9,443,457	4.81%
Paraná	9,525,599	4.85%
Santa Catarina	4,269,384	2.17%
Rio Grande do Sul	12,889,382	6.56%
Mato Grosso do Sul	22,023,409	11.21%
Mato Grosso	27,800,728	14.15%
Goiás	19,706,332	10.03%
Distrito Federal	70,465	0.04%
Brazil	196,468,110	100%

Source: Athenagro, com dados do IBGE

Cattle genetically suited for beef in 2021	Share of animals exclusively intended for beef by state in 2021	Number of properties with cattle (units)
10,580,881	94%	73,129
2,435,958	98%	22,649
1,361,999	95%	14,612
771,174	99%	6,903
15,678,246	96%	97,769
36,650	89%	684
6,924,404	94%	50,451
5,767,179	93%	91,296
1,520,485	94%	70,480
1,675,281	77%	114,714
659,262	76%	39,150
974,169	81%	82,761
1,078,679	73%	107,939
682,201	76%	42,300
883,075	87%	43,783
8,691,755	93%	297,894
19,178,395	86%	385,488
1,690,902	89%	32,273
1,982,065	87%	32,273
8,724,397	92%	107,255
8,532,725	89%	107,296
3,192,681	74%	132,522
11,530,075	89%	261,717
21,678,319	98%	54,931
27,596,811	99%	92,723
18,814,670	95%	126,100
16,097	22%	1,468
182,658,536	93%	2,554,415

Table 5 Herd in the Largest Livestock Municipalities in Brazil and Growth in The Last 10 and 20 Years

Municipality/State	Herd in 2001 (head)	Herd in 2011 (head)	Herd in 2021 (head) *
São Félix do Xingu (PA)	931,750	1,660,030	1,931,497
Corumbá (MS)	1,386,847	1,343,244	1,451,874
Marabá (PA)	177,753	533,143	1,038,332
Porto Velho (RO)	250,863	536,963	1,036,484
V. B. da S. Trindade (MT)	529,188	701,719	989,331
Cáceres (MT)	642,262	700,844	920,455
Novo Repartimento (PA)	130,850	523,727	877,503
Ribas do Rio Pardo (MS)	1,085,625	906,060	850,973
Juara (MT)	670,102	732,845	792,385
Juína (MT)	388,018	476,886	677,987
Nova Crixás (GO)	449,945	560,787	674,705
Altamira (PA)	183,692	544,122	651,976
Alta Floresta (MT)	488,188	662,613	647,626
Nova Mamoré (RO)	101,759	347,226	629,087
Aquidauana (MS)	558,585	599,068	598,155
Cumaru do Norte (PA)	178,261	539,518	593,675
Porto Esperidião (MT)	306,530	414,772	591,636
Pacajá (PA)	125,123	282,792	570,991
Colniza (MT)	29,072	293,393	556,780
Itupiranga (PA)	89,103	298,560	551,697
Pontes e Lacerda (MT)	493,851	491,173	550,092
Vila Rica (MT)	302,653	576,547	544,344
Água Azul do Norte (PA)	485,589	431,110	542,030
Porto Murtinho (MS)	553,957	558,375	520,493
Novo Progresso (PA)	167,350	537,622	517,171
S. M. do Araguaia (GO)	398,022	451,789	501,389
S. M. das Barreiras (PA)	320,693	408,013	492,666
Alegrete (RS)	494,957	501,732	463,680
Rio Verde de M. G. (MS)	447,680	412,555	459,412
Santana do Araguaia (PA)	301,159	469,224	450,829
Aripuanã (MT)	140,380	346,085	448,766
Poconé (MT)	263,021	315,576	435,039
Três Lagoas (MS)	830,123	519,543	433,707
Rio Branco (AC)	298,144	368,256	433,064
Jaru (RO)	232,885	399,989	430,379
S. A. do Leverger (MT)	384,453	372,571	429,955
Nova Bandeirantes (MT)	107,986	375,388	425,601
Buritis (RO)	96,091	340,656	425,393
Cocalinho (MT)	245,298	338,778	421,134
Xinguara (PA)	344,366	405,453	414,867
Paranaíba (MS)	502,965	392,656	410,029

Source: Athenagro, IBGE | *preliminary data on year-end stock

Growth of herd in 20 years (head)	Growth of herd in 10 years (head)	Growth of herd in 20 years (%)	Growth of herd in 10 years (%)
999,748	271,467	107.30%	16.35%
65,028	108,630	4.69%	8.09%
860,579	505,189	484.14%	94.76%
785,621	499,521	313.17%	93.03%
460,143	287,613	86.95%	40.99%
278,193	219,610	43.31%	31.34%
746,653	353,766	570.62%	67.55%
-234,652	-55,087	-21.61%	-6.08%
122,283	59,540	18.25%	8.12%
289,969	201,101	74.73%	42.17%
224,759	113,917	49.95%	20.31%
468,284	107,854	254.93%	19.82%
159,438	-14,987	32.66%	-2.26%
527,328	281,860	518.21%	81.17%
39,570	-913	7.08%	-0.15%
415,414	54,157	233.04%	10.04%
285,106	176,865	93.01%	42.64%
445,868	288,198	356.35%	101.91%
527,708	263,387	1815.19%	89.77%
462,594	253,137	519.17%	84.79%
56,241	58,919	11.39%	12.00%
241,691	-32,203	79.86%	-5.59%
56,441	110,920	11.62%	25.73%
-33,464	-37,882	-6.04%	-6.78%
349,821	-20,451	209.04%	-3.80%
103,367	49,600	25.97%	10.98%
171,973	84,653	53.63%	20.75%
-31,277	-38,052	-6.32%	-7.58%
11,731	46,857	2.62%	11.36%
149,671	-18,395	49.70%	-3.92%
308,386	102,681	219.68%	29.67%
172,018	119,462	65.40%	37.86%
-396,416	-85,835	-47.75%	-16.52%
134,919	64,808	45.25%	17.60%
197,494	30,390	84.80%	7.60%
45,502	57,384	11.84%	15.40%
317,616	50,214	294.13%	13.38%
329,302	84,737	342.70%	24.87%
175,836	82,356	71.68%	24.31%
70,501	9,414	20.47%	2.32%
-92,937	17,372	-18.48%	4.42%

Table 6 Number of establishments and herd per size of producer per state

Number of establishments per Area (hectare) - 2017 Census

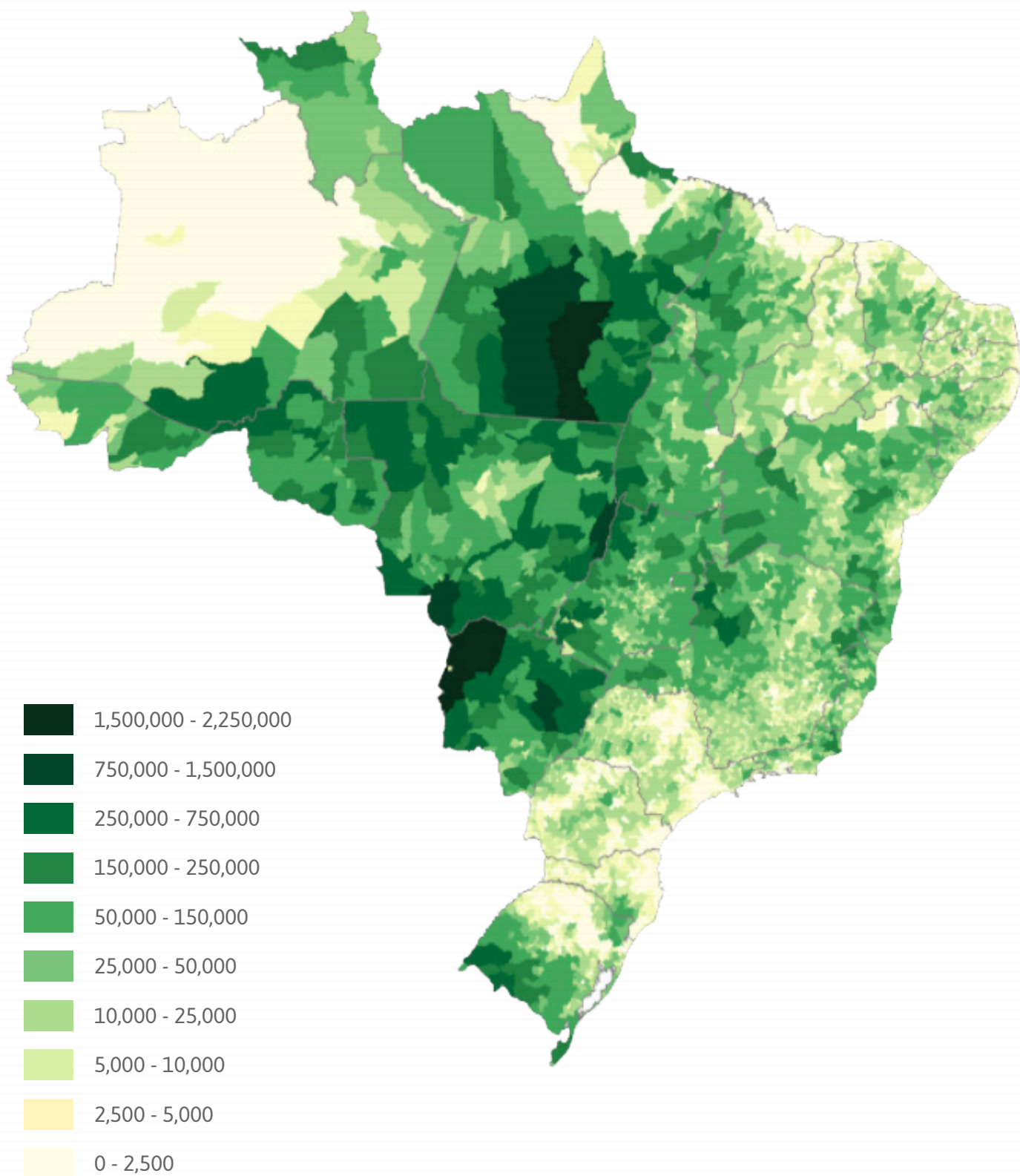
State	Pasture area (hectares) (Athenagro 2021)	Less than 20	Between 20 and 200
Brasil	163,152,367	1,236,314	1,110,242
Rondônia	7,493,244	16,456	49,576
Acre	1,866,996	3,848	15,344
Amazonas	1,985,443	3,540	8,882
Roraima	727,509	855	4,453
Pará	17,774,110	11,119	70,210
Amapá	307,341	83	412
Tocantins	7,311,890	5,094	34,218
Maranhão	6,882,318	34,138	48,482
Piauí	1,657,141	31,910	33,819
Ceará	2,080,684	71,796	38,002
Rio Grande do Norte	999,454	22,830	13,992
Paraíba	1,796,684	60,213	19,962
Pernambuco	2,873,229	81,665	24,274
Alagoas	1,412,712	34,432	7,033
Sergipe	1,626,263	32,486	10,370
Bahia	16,424,501	164,189	118,603
Minas Gerais	19,402,399	170,376	185,559
Espírito Santo	1,867,342	15,421	15,971
Rio de Janeiro	1,755,967	17,104	13,047
São Paulo	4,694,787	55,693	43,832
Paraná	2,743,528	104,654	57,523
Santa Catarina	1,048,279	81,132	48,649
Rio Grande do Sul	7,721,084	148,107	98,862
Mato Grosso do Sul	15,635,498	21,166	18,034
Mato Grosso	20,888,491	14,369	58,821
Goiás + DF	14,175,477	33,638	72,312

PS: The Census data are official and therefore no adjustment calculation was used in the sum of states and in the sum of area groups. Divergences occur in the number of establishments and in the herd, where the sum of state data and area groups do not match the total value provided by IBGE.

Between 200 and 1000	Between 1000 and 2500	More than 2500	Total
168,770	27,801	12,204	2,555.333
6,034	810	296	73,172
2,973	309	166	22,640
1,875	235	122	14,654
1,160	302	131	6,901
12,851	2,366	1,280	97,826
146	23	21	685
8,454	1,860	782	50,409
7,423	918	391	91,352
4,096	463	220	70,508
929	43	8	43,836
4,545	341	72	114,756
2,066	241	44	39,173
2,442	173	25	82,815
1,978	122	31	108,070
813	72	16	42,366
13,083	1,753	645	298,273
26,488	2,545	599	385,568
1,620	135	22	33,169
1,948	140	32	32,271
7,018	667	146	107,356
7,358	728	111	170,374
2,505	258	46	132,590
12,021	2,330	575	261,895
9,215	3,750	2,166	54,331
12,478	3,890	3,218	92,776
17,251	3,327	1,039	127,567

Source: Athenagro, IBGE (2006 Census, 2017 Census and PPM 2017)

Map 1 Pasture distribution in Brazil - hectares



Source: Athenagro,, Agrosatélite, IBGE, Inpe/Terraclass, Lapig, Prodes, Rally da Pecuária, Map Biomas, Rede Fomento



Herd per size farm (hectares) - 2017 Census

State	Less than 20	Between 20 and 200
Brazil	14,591,533	53,692,142
Rondônia	420,749	4,608,652
Acre	46,280	826,846
Amazonas	63,712	436,554
Roraima	11,477	206,122
Pará	206,556	4,195,235
Amapá	1,614	13,031
Tocantins	98,733	1,556,513
Maranhão	374,589	2,018,399
Piauí	321,402	653,908
Ceará	619,358	840,549
Rio Grande do Norte	180,025	313,930
Paraíba	368,749	429,128
Pernambuco	508,839	529,138
Alagoas	237,643	274,834
Sergipe	271,693	350,744
Bahia	1,364,508	3,177,101
Minas Gerais	2,170,415	8,789,883
Espírito Santo	188,637	716,868
Rio de Janeiro	302,809	851,950
São Paulo	1,194,763	3,458,926
Paraná	1,596,047	3,185,950
Santa Catarina	1,130,974	1,950,794
Rio Grande do Sul	1,549,430	3,550,249
Mato Grosso do Sul	415,316	1,292,198
Mato Grosso	280,134	4,677,606
Goiás + DF	661,648	4,787,034

PS: The Census data are official and therefore no adjustment calculation was used in the sum of states and in the sum of area groups. Divergences occur in the number of establishments and in the herd, where the sum of state data and area groups do not match the total value provided by IBGE.

Between 200 and 1000	Between 1000 and 2500	More than 2500	Total
46,204,474	24,439,667	32,927,852	171,858,168
2,679,524	1,083,202	1,034,904	9,827,031
548,786	254,973	455,864	2,133,001
352,030	149,386	211,550	1,253,852
197,781	129,780	127,634	674,501
4,653,473	2,432,668	3,810,681	15,298,613
13,742	4,237	3,120	36,481
1,829,102	1,272,519	1,580,812	6,340,469
1,556,745	652,671	809,615	5,412,019
253,590	73,184	126,009	1,428,093
319,667	76,344	39,135	1,895,053
186,188	60,529	17,273	757,945
208,099	35,682	8,363	1,050,021
197,536	38,122	0	1,283,872
191,086	61,907	0	785,836
207,621	38,757	17,644	886,459
2,109,429	841,185	678,962	8,171,185
6,001,837	1,651,409	880,743	19,494,287
506,397	179,938	55,438	1,647,278
619,929	148,456	55,877	1,979,021
2,607,212	708,812	358,958	8,328,671
2,603,293	752,347	0	8,395,422
477,288	116,935	0	3,725,827
3,203,782	1,988,502	1,151,524	11,443,487
4,187,627	4,612,382	7,651,515	18,159,792
4,808,744	3,804,701	10,546,187	24,118,840
5,683,966	3,271,039	2,927,410	17,331,112

Table 7 Beef production per State - thousand tons

Beef production per State Thousand tons	2010	2011	2012	2013	2014
Brazil	9,977,5	8,932,4	9,111,5	9,686,2	10,179,3
Rondônia	441,5	377,3	402,7	412,1	453,0
Acre	90,6	74,8	82,2	85,8	95,3
Amazonas	67,4	58,1	61,7	63,5	64,7
Roraima	29,4	26,4	28,7	31,1	32,5
Pará	697,4	598,1	644,5	671,5	739,9
Amapá	4,7	4,3	5,0	5,5	6,2
Tocantins	387,3	339,8	331,9	357,2	369,9
Maranhão	306,9	279,1	277,9	302,7	322,7
Piauí	124,3	108,2	103,1	107,9	110,9
Ceará	139,5	129,4	155,5	154,7	154,2
Rio Grande do Norte	69,2	62,1	60,6	66,1	69,0
Paraíba	81,4	80,2	73,2	80,8	85,6
Pernambuco	112,5	107,0	101,3	102,3	107,3
Alagoas	47,8	44,8	50,7	54,2	54,5
Sergipe	68,9	65,3	74,9	83,1	83,3
Bahia	531,2	473,9	450,5	508,3	534,1
Minas Gerais	1,072,7	1,020,9	1,053,7	1,118,5	1,169,8
Espírito Santo	96,8	89,4	95,4	102,4	109,1
Rio de Janeiro	87,7	80,5	84,1	94,3	102,4
São Paulo	450,4	404,0	407,2	419,5	436,5
Paraná	641,6	568,0	581,0	601,5	585,3
Santa Catarina	238,9	212,6	220,3	236,0	240,6
Rio Grande do Sul	1,096,1	965,2	970,5	1,003,0	999,3
Mato Grosso do Sul	1,133,4	977,6	989,8	1,067,3	1,144,0
Mato Grosso	1,132,3	1,031,4	1,028,8	1,120,2	1,212,2
Goiás	824,6	751,2	773,2	833,7	893,6
Distrito Federal	3,2	2,9	2,9	3,1	3,4

Source: Athenagro, dados IBGE, MAPA, Rally da Pecuária

2015	2016	2017	2018	2019	2020	2021
9,601,6	10,207,9	9,815,7	10,779,7	10,422,4	9,797,3	9,714,2
450,0	502,1	517,5	574,5	563,9	551,7	562,9
93,9	105,5	102,9	126,1	131,2	131,7	137,2
57,1	63,3	63,7	69,9	71,9	75,6	76,2
32,6	35,2	35,1	39,1	41,2	41,4	42,5
712,4	788,2	795,9	867,6	862,8	853,9	869,0
3,4	3,2	2,8	2,6	2,5	2,4	2,2
358,2	385,4	361,3	401,1	384,0	354,4	348,3
300,4	316,6	293,2	348,0	338,2	313,5	310,7
102,0	104,7	94,2	97,9	89,5	81,8	77,6
140,8	142,4	127,9	141,2	131,6	120,3	116,7
61,8	60,1	58,0	61,0	59,0	53,8	51,8
81,6	87,6	83,3	90,2	85,5	78,0	76,1
103,3	108,6	99,0	109,6	104,6	95,1	91,8
52,8	53,8	52,1	57,6	52,7	47,9	47,2
79,9	82,7	71,8	75,7	70,7	64,4	62,9
502,4	519,6	471,6	544,8	532,7	493,0	484,4
1,106,4	1,133,8	1,024,0	1,135,4	1,120,8	1,044,5	1,024,4
100,5	96,5	89,3	102,3	102,6	96,5	95,2
95,9	101,7	103,8	116,9	113,7	106,6	107,5
426,4	464,3	453,7	494,0	473,6	436,1	430,3
534,0	556,2	532,6	546,9	480,5	429,1	406,9
221,2	230,5	213,8	221,7	207,7	186,2	179,5
887,1	894,0	854,4	837,7	726,2	650,6	609,1
1,085,2	1,168,2	1,146,0	1,257,9	1,154,7	1,093,7	1,083,3
1,162,0	1,265,0	1,236,8	1,418,2	1,484,9	1,413,7	1,432,2
847,1	935,2	927,9	1,038,2	1,031,9	977,6	984,7
3,2	3,5	3,4	3,8	3,7	3,5	3,5

Table 8 Carcass average weight - males and females - @ per carcass

State	2010		2011		2012		2013		2014	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Rondônia	17.31	12.50	17.54	12.44	17.77	12.83	17.88	12.93	18.02	12.91
Acre	17.40	11.97	17.22	11.89	17.11	11.90	17.43	0	17.45	0
Amazonas	15.82	13.37	15.72	12.48	15.53	12.52	14.86	12.63	14.33	11.99
Roraima	16.40	11.99	16.09	10.02	16.63	10.26	16.32	12.01	16.62	12.13
Pará	18.26	12.70	18.37	0	18.57	12.96	18.47	13.29	18.13	12.97
Amapá	0	0	0	0	0	0	0	0	0	0
Tocantins	17.94	11.94	18.10	12.01	18.19	12.19	18.27	12.28	18.29	12.50
Maranhão	15.08	11.70	17.23	11.98	17.38	11.64	17.18	11.66	17.32	12.13
Piauí	14.49	11.29	14.06	11.36	13.95	11.36	13.22	11.20	12.18	10.79
Ceará	14.86	11.15	14.90	11.34	15.22	11.51	14.64	10.55	14.69	10.71
Rio Grande do Norte	16.18	11.88	15.64	11.31	12.79	9.52	15.29	11.42	15.71	11.98
Paraíba	10.02	16.55	9.74	4.92	10.57	15.85	10.85	16.07	10.51	16.67
Pernambuco	16.55	12.01	4.92	3.56	15.85	11.45	16.07	11.39	16.67	11.61
Alagoas	18.11	13.81	18.31	14.41	15.87	12.28	15.45	12.17	16.44	13.07
Sergipe	18.62	0	0	0	18.31	0	18.30	13.23	18.36	13.82
Bahia	16.37	13.07	16.89	13.38	16.78	13.15	16.73	12.92	17.13	12.84
Minas Gerais	17.06	12.74	17.11	12.97	17.25	12.89	17.22	12.93	17.24	12.79
Espírito Santo	17.17	12.97	16.74	12.63	17.30	13.17	17.12	13.53	16.89	13.27
Rio de Janeiro	16.81	12.56	16.47	6.64	16.58	13.12	16.09	12.99	16.60	12.92
São Paulo	18.19	13.62	18.17	13.71	18.46	13.78	18.84	13.47	18.75	13.67
Paraná	17.51	13.07	17.46	12.77	17.36	13.52	17.52	13.43	17.60	13.27
Santa Catarina	15.71	14.17	16.00	13.47	15.94	13.90	15.39	13.74	15.47	13.44
Rio Grande do Sul	15.99	14.13	15.84	14.12	15.88	14.16	15.93	14.19	15.78	14.19
Mato Grosso do Sul	18.30	13.18	18.19	12.93	18.49	13.27	18.65	13.43	18.75	13.63
Mato Grosso	18.60	13.53	18.59	13.10	18.80	13.50	19.03	13.62	19.15	13.51
Goiás	18.32	12.76	18.43	13.04	18.42	13.14	18.53	12.98	18.77	12.97

2015		2016		2017		2018		2019		2020		2021	
Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
18.36	12.94	18.91	13.22	18.90	13.36	18.90	13.33	19.19	13.34	19.54	13.64	19.82	14.00
17.58	0	17.68	12.31	18.01	12.25	17.99	12.28	18.03	12.31	18.37	12.31	18.53	12.81
14.91	12.41	15.37	12.82	15.28	0	15.95	13.42	15,40	0	15.76	12.91	15.59	0
16.83	11.91	16.68	11.95	17.87	12.90	17.52	13.42	15,40	0	15.76	12.91	15.59	0
18.56	12.95	18.84	13.18	19.02	13.07	19.13	13.19	19.32	13.49	19.62	14.12	19.59	14.37
0	0	0	0	0	0	0	0	0	0	0	0	0	0
18.76	12.82	19.05	12.77	18.87	13.16	19.26	12.86	19.54	13.46	19.96	13.92	20.18	14.21
17.88	12.19	17.96	12.15	17.66	12.38	18.07	12.39	18.39	12.73	18.58	13.10	19.39	13.07
12.92	10.87	11.66	10.33	13.24	12.55	13.42	12.14	14.11	14.01	14.48	13.82	14.31	13.70
14.17	10.27	14.90	10.92	15.30	11.16	15.95	11.26	15.76	11.65	15.64	11.59	15.41	11.63
15.85	11.95	15.83	12.13	16.18	12.28	16.22	12.89	16.50	13.15	16.01	12.97	16.29	12.63
10.78	16.50	11.71	16.91	12.48	17.20	12.61	17.77	12.47	18.12	13.02	19.00	13.05	18.92
16.50	11.69	16.91	12.19	17.20	12.74	17.77	13.08	18.12	13.88	19.00	14.12	18.92	14.14
16.11	12.89	16.85	13.41	17.64	13.50	18.48	13.06	17.81	13.78	19.07	13.24	19.58	13.50
18.93	14.77	19.04	14.59	19.06	14.69	19.22	14.55	19.14	12.88	0	0	20.66	13.64
17.93	13.12	17.76	13.05	17.69	13.63	18.18	13.46	18.41	13.68	19.25	14.13	19.29	14.36
17.56	13.02	17.66	13.04	17.67	13.24	17.71	13.33	18.26	13.52	18.69	13.78	19.14	14.15
17.26	13.20	17.72	13.04	18.60	13.64	18.95	14.66	18.61	13.89	18.30	13.93	18.84	0
16.00	13.04	15.79	13.71	15.58	13.59	15.72	13.50	15.97	13.06	15.93	13.04	16.37	13.35
19.25	13.97	19.56	14.01	19.61	14.18	19.66	14.19	19.97	14.55	20.21	15.13	20.28	15.44
18.03	13.65	18.14	13.77	18.29	13.71	18.46	13.86	18.61	14.14	18.83	14.25	19.26	14.47
15.81	14.01	15.92	13.86	15.39	14.35	16.15	14.33	16,08	14.28	16.03	14.18	15.94	14.14
15.68	14.07	15.81	14.14	15.75	14.20	16.02	14.24	16.00	14.26	16.24	14.56	16,64	15,23
19.10	13.69	19.16	14.04	19.44	14.16	19.34	14.30	19.62	14.50	19.91	14.80	20.11	15.00
19.68	13.80	20.19	14.00	20.49	14.32	20.60	14.40	10.76	14.52	21.10	14.88	21.42	15.03
19.12	13.11	19.31	13.10	19.43	13.48	19.48	13.52	19.94	13.37	20.22	13.71	20.73	14.31

Graphic 2 Carcass average weight in males and females in Brazil - @ per carcass

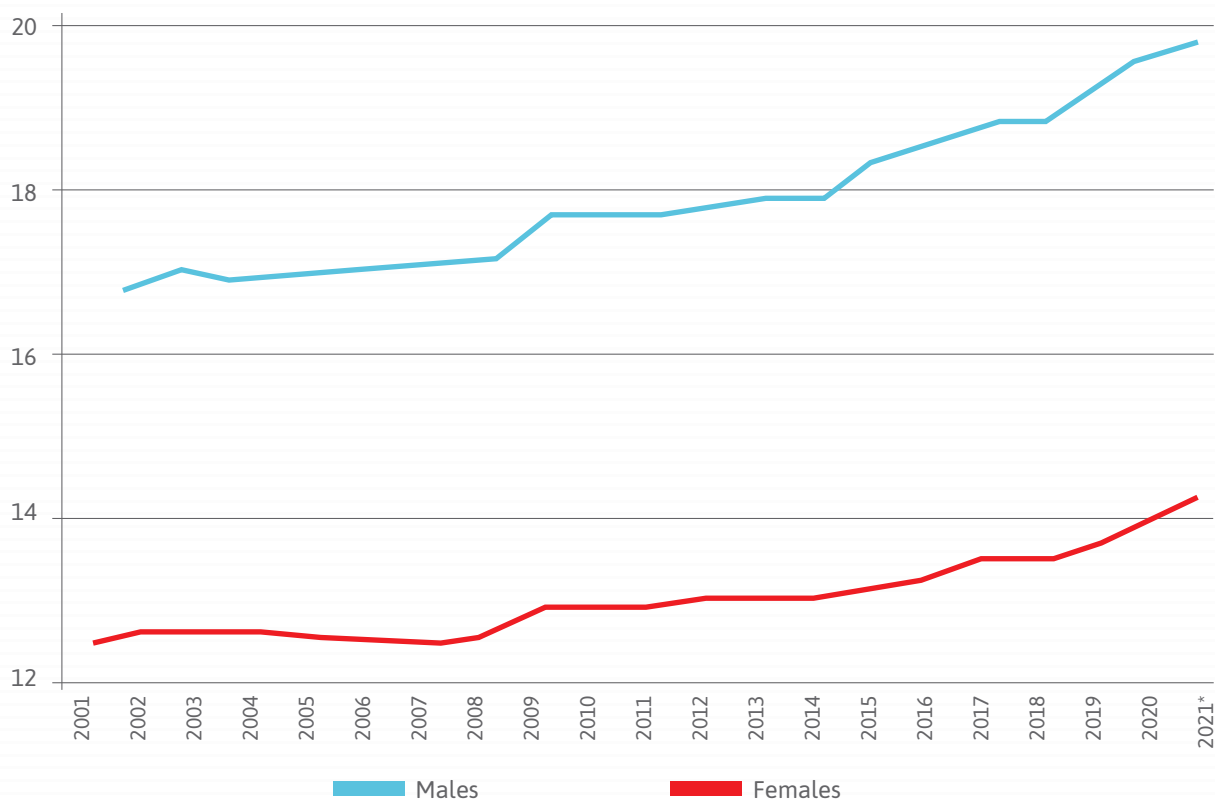




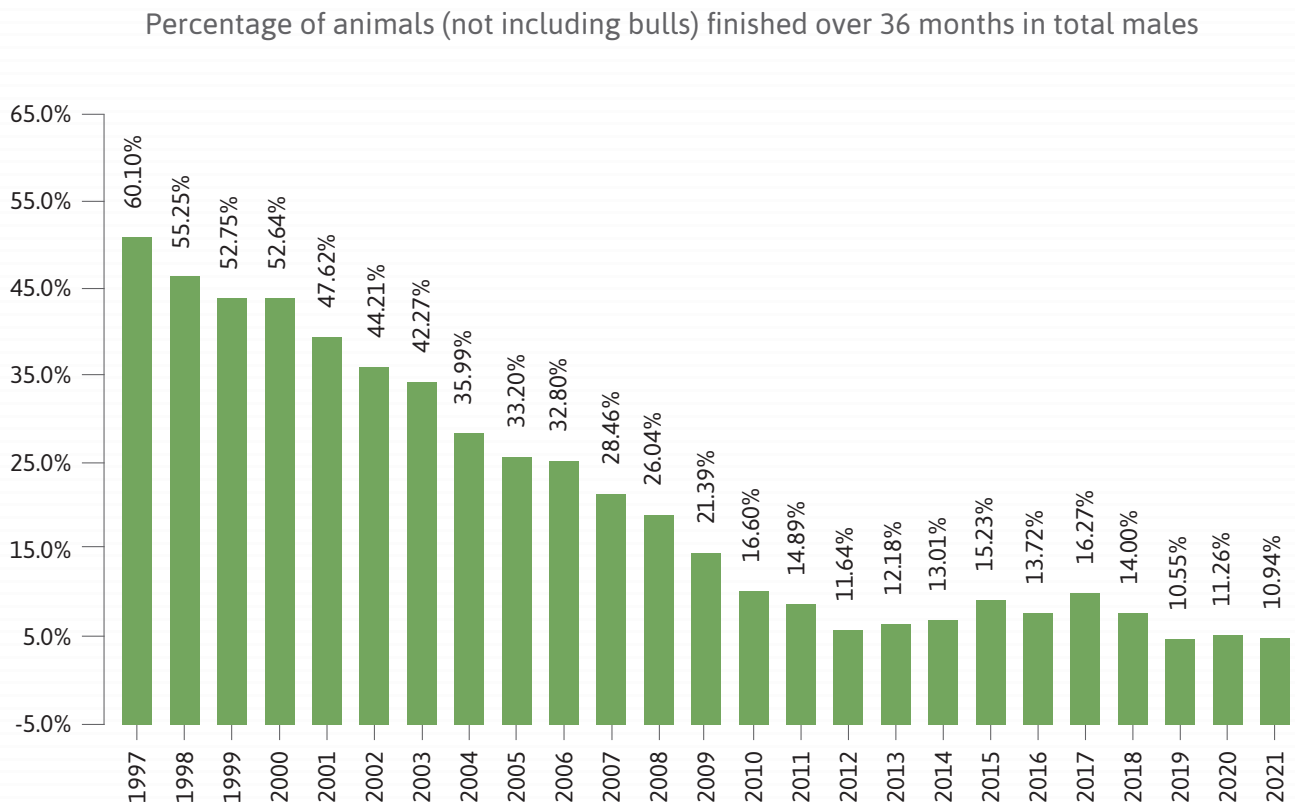
Table 9 Productivity by State (kg of carcass per hectare)

Productivity	2001	2002	2003	2004	2005	2006	2007	2008	2009
Brasil	39.2	40.7	40.4	45.4	47.1	44.4	45.7	45.6	49.6
Rondônia	30.30	35.82	37.86	46.52	47.49	42.67	42.27	43.61	47.83
Acre	30.19	32.43	30.90	36.91	39.48	36.87	36.59	39.07	43.54
Amazonas	14.85	15.36	17.03	19.33	19.41	17.90	16.54	18.83	21.07
Roraima	20.50	21.86	21.99	27.70	31.28	28.21	28.78	28.05	29.35
Pará	21.75	24.13	24.72	35.49	36.37	31.75	29.17	30.56	32.99
Amapá	8.24	8.64	8.53	10.34	12.57	12.84	12.23	11.15	12.26
Tocantins	26.21	27.99	29.39	34.11	36.76	35.84	37.69	37.50	43.61
Maranhão	26.62	27.38	28.86	33.26	36.96	35.22	38.29	38.46	44.32
Piauí	33.45	32.39	29.97	32.26	32.91	30.75	28.97	30.57	34.49
Ceará	39.24	38.71	35.48	37.09	36.88	34.32	36.64	39.14	40.35
Rio Grande do Norte	35.92	36.78	34.91	38.36	39.01	37.16	36.72	38.79	43.85
Paraíba	30.41	30.72	28.31	30.84	31.79	30.44	32.99	34.66	36.10
Pernambuco	33.76	34.39	30.63	32.11	34.92	34.77	39.37	38.61	42.25
Alagoas	33.24	31.38	28.77	31.99	34.15	32.25	36.57	37.29	39.26
Sergipe	43.13	42.45	40.54	44.33	47.60	47.73	48.50	48.57	53.46
Bahia	26.07	25.83	25.09	28.37	29.73	29.45	33.00	31.86	33.18
Minas Gerais	42.34	42.92	41.09	45.67	46.77	46.60	48.53	47.80	51.00
Espírito Santo	30.53	30.33	30.25	34.12	36.60	35.69	39.01	38.75	43.36
Rio de Janeiro	44.96	45.38	43.83	48.85	51.72	50.97	51.21	51.94	55.09
São Paulo	53.51	56.31	55.68	59.95	61.90	58.91	61.84	63.62	66.03
Paraná	105.88	110.63	109.60	120.12	125.72	119.33	109.18	116.55	127.85
Santa Catarina	79.91	81.46	80.14	88.88	96.47	97.33	98.72	108.70	116.74
Rio Grande do Sul	87.52	91.07	88.19	95.46	96.49	92.67	99.29	99.69	102.62
Mato Grosso do Sul	42.72	43.25	44.59	47.60	48.99	45.29	42.95	43.49	48.35
Mato Grosso	28.91	31.66	33.42	37.78	40.12	36.93	39.28	37.63	43.19
Goiás	33.11	34.87	33.95	37.62	40.19	39.17	42.12	41.19	46.08
Distrito Federal	33.11	34.87	33.95	37.62	40.19	39.17	42.12	41.19	46.08

Source: Athenagro, dados IBGE, INPE, LAFIG, CONAB, Rally da Pecuária

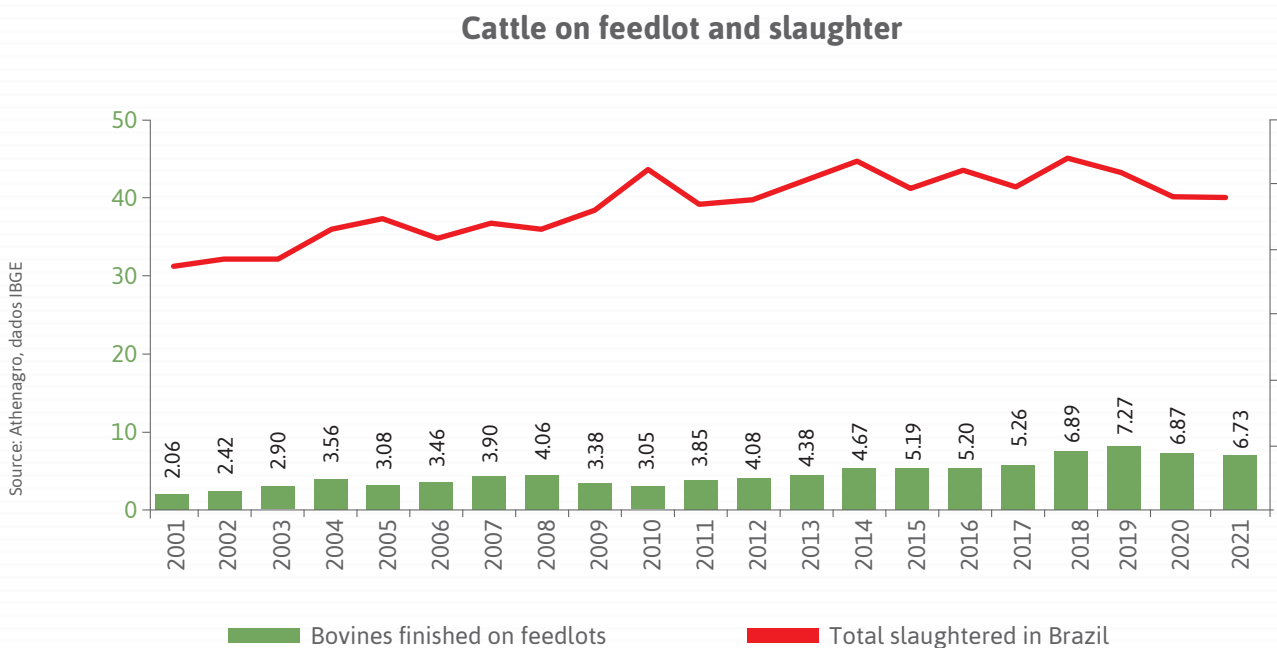
2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
56.0	50.4	52.1	56.9	60.5	57.1	61.1	59.6	65.9	64.1	60.2	59.5
56.88	4.01	52.58	54.33	60.27	60.40	68.09	70.64	78.71	77.92	75.09	75.12
52.37	43.83	47.85	50.40	56.13	55.60	62.28	60.93	75.00	76.77	73.97	73.47
25.39	23.10	25.97	27.99	30.46	28.22	33.11	35.36	41.92	44.68	43.05	38.36
39.36	36.05	40.88	44.70	47.46	47.39	55.06	55.06	62.23	62.28	60.01	58.48
39.23	33.74	36.65	38.59	43.14	41.89	47.29	47.29	51.77	51.21	49.35	48.89
15.00	13.33	15.55	17.14	19.34	10.51	9.24	9.24	8.59	8.32	8.02	7.31
46.88	41.40	41.03	45.39	47.98	46.93	48.35	48.35	54.08	52.08	48.27	47.64
46.15	41.21	41.09	45.02	48.25	43.28	45.06	45.06	50.56	49.27	45.67	45.15
37.61	34.42	35.60	39.71	43.79	42.13	48.29	48.29	52.45	52.51	48.67	46.83
52.32	44.52	50.73	54.93	56.73	53.31	55.61	55.61	64.84	64.01	58.18	56.09
49.30	42.53	42.30	49.48	52.33	48.14	52.80	52.80	57.98	59.21	53.81	51.85
43.31	38.91	36.04	41.35	43.68	42.84	45.70	45.70	50.23	47.68	43.33	42.35
48.95	42.59	35.37	37.87	39.45	37.45	35.11	35.11	38.28	36.32	33.01	31.96
41.58	39.26	43.66	44.80	43.14	39.32	38.59	38.59	41.12	37.17	33.79	33.45
50.67	47.15	53.03	57.64	56.78	53.29	45.62	45.62	47.42	43.59	39.62	38.70
34.95	30.72	28.64	32.90	34.40	31.60	28.92	28.92	33.27	32.30	29.94	29.49
56.54	53.93	55.65	59.22	61.29	57.73	52.98	52.98	58.10	57.12	53.51	52.80
48.85	45.98	49.76	54.52	58.57	54.87	49.24	49.24	56.22	55.27	51.78	50.98
58.82	54.05	55.04	60.26	63.61	57.73	60.15	60.15	67.21	64.78	60.69	61.24
74.97	68.38	75.46	82.59	83.95	82.68	91.42	91.42	99.52	97.70	91.53	91.65
139.64	125.23	130.42	151.56	173.50	166.85	162.25	162.25	186.01	173.80	156.80	148.32
130.07	118.45	129.69	149.85	160.61	155.33	169.13	169.13	190.52	195.91	176.75	171.19
114.13	102.62	108.43	118.44	123.12	107.31	105.82	105.82	104.75	92.85	83.77	78.89
54.76	48.34	50.48	56.24	62.20	60.66	67.98	67.98	76.99	72.74	69.38	69.28
50.70	46.94	47.78	54.01	58.25	55.18	59.94	58.83	68.03	70.96	67.68	68.56
53.00	49.07	50.85	55.69	60.34	56.94	63.54	63.30	71.58	71.78	68.46	69.47
53.00	49.07	50.85	55.69	60.34	56.94	63.54	63.30	71.58	71.78	68.46	69.47

Graph 3 Evolution of slaughter of cattle over 36 months



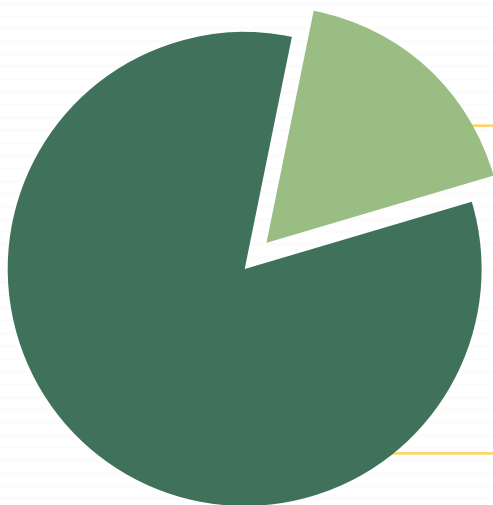
Source: Athenagro, com base em dados do IBGE

Graph 4 History of bovines finished on feedlots and total slaughtered animals in Brazil (million heads)



Source: Athenagro, dados IBGE

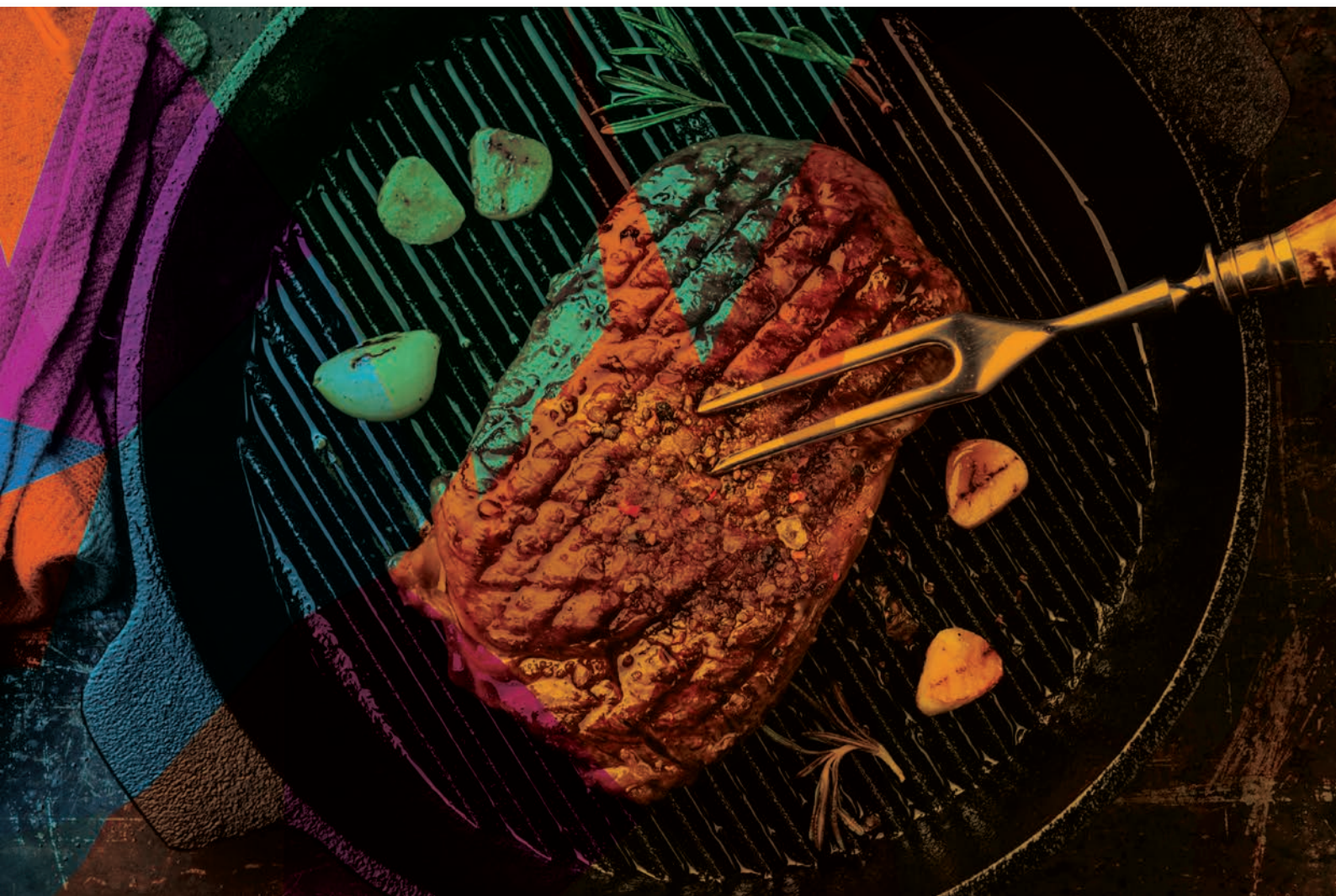
2021



Feedlot cattle
representative in total slaughter
17.19%

Non feedlot cattle representative
in total slaughter
82.81%

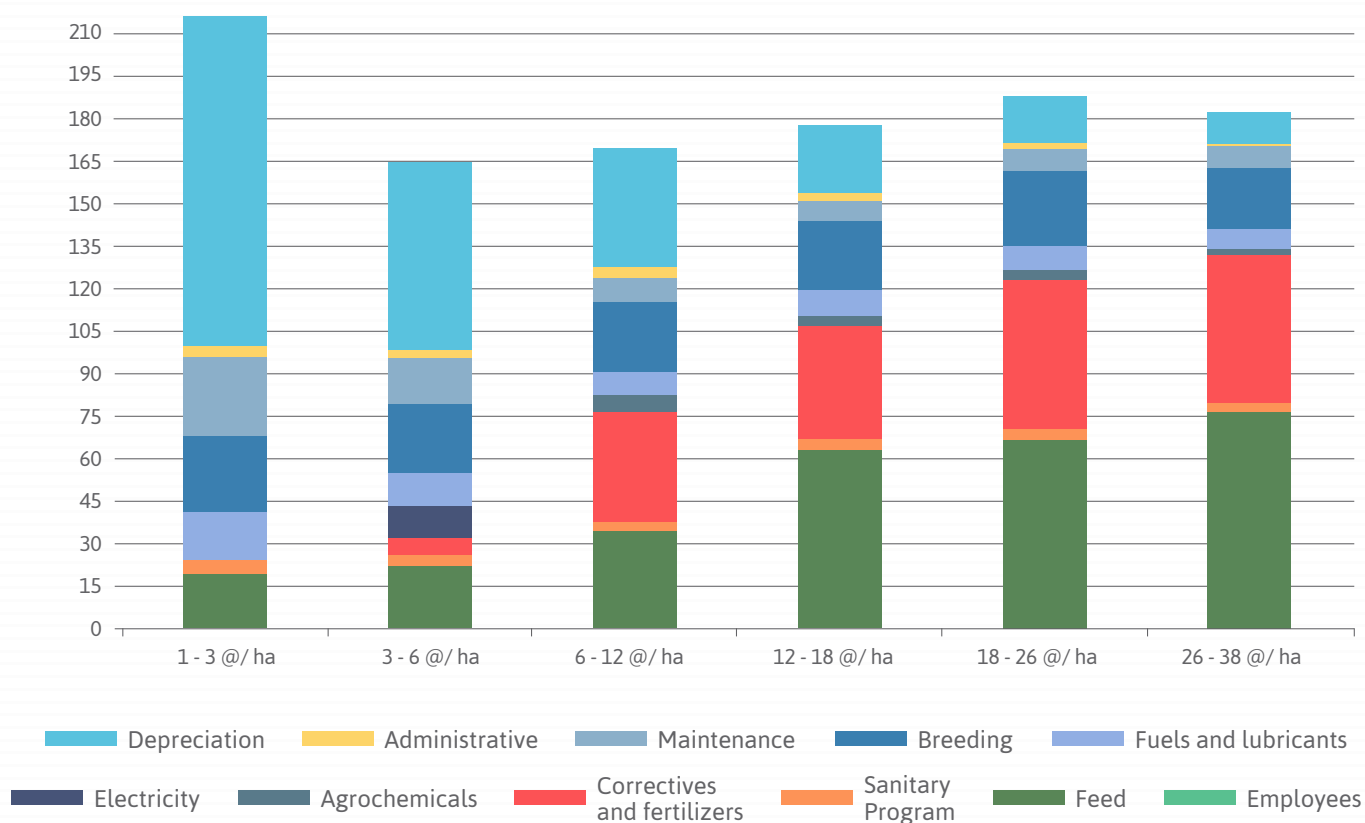
Source: Athenagro, IBGE



Graph 5 Production cost in full cycle farms for six technologies levels - 2021 average

Breeding - R\$/@ COMPOSITION OF RESULTS	Extractivism 1-3 @/ha	Low Tech 3-6@/ha	Medium Tech 6-12@/ha	Appropriate 12-18@/ha	High Tech 18-26@/ha	Intensive 26-38@/ha
Feed	18.62	22.08	35.37	61.90	66.76	75.54
Sanitary Program	3.87	3.78	4.02	3.79	3.84	3.43
Correctives and fertilizers	0	6.79	36.83	39.92	55.32	52.55
Agrochemicals	0	10.83	6.47	4.50	2.46	1.37
Fuels and lubricants	18.14	10.47	8.43	7.07	8.49	7.75
Breeding	0	2.23	7.85	14.53	14.90	13.35
Employees	26.01	22.25	15.55	11.19	9.95	7.86
Maintenance	28.30	14.19	9.79	9.02	8.28	6.53
Administrative	2.60	2.22	1.55	1.12	1.00	0.79
Electricity	0.91	0.52	9.42	0.35	0.42	0.39
Depreciation	128.90	68.49	42.20	23.64	17.54	12.42
Total operating costs	227.35	163.86	168.48	177.03	188.96	181.98

Production cost in full cycle farms for six technologies levels - 2021 average - R\$/@

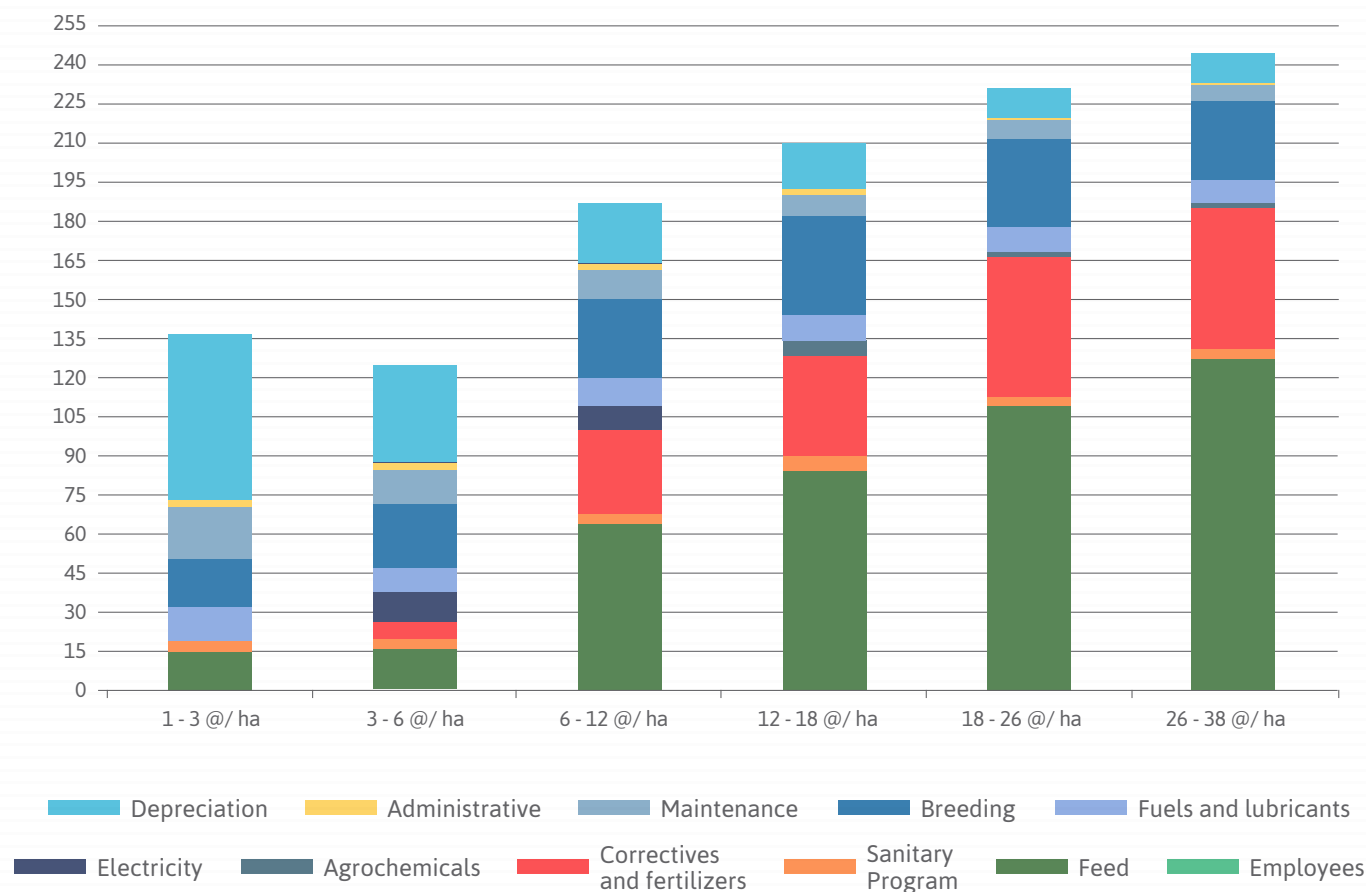


Source: Athenagro

Graph 6 Production cost in breeding farms for six technologies levels - 2021 average

Breeding - R\$/@ COMPOSITION OF RESULTS	Extractivism 1-3 @/ha	Low Tech 3-6@/ha	Medium Tech 6-12@/ha	Appropriate 12-18@/ha	High Tech 18-26@/ha	Intensive 26-38@/ha
Feed	15.68	16.62	62.38	85.82	109.10	127.68
Sanitary Program	3.32	3.66	4.65	4.65	4.59	4.41
Correctives and fertilizers	0	6.68	33.45	38.55	51.95	53.74
Agrochemicals	0	10.65	7.23	5.11	2.34	1.46
Fuels and lubricants	12.79	9.71	10.55	9.25	8.62	8.58
Breeding	0	3.98	13.42	24.29	22.74	21.87
Employees	17.76	21.89	18.74	13.58	10.90	9.15
Maintenance	20.71	12.83	10.41	9.01	7.06	6.10
Administrative	1.78	2.19	1.87	1.36	1.09	0.92
Electricity	0.64	0.49	0.53	0.46	0.43	0.43
Depreciation	63.42	37.13	23.59	17.97	12.85	10.62
Total operating costs	136.09	125.83	186.81	210.05	231.66	244.96

Production cost in breeding farms for six technologies levels - 2021 Average - R\$/@

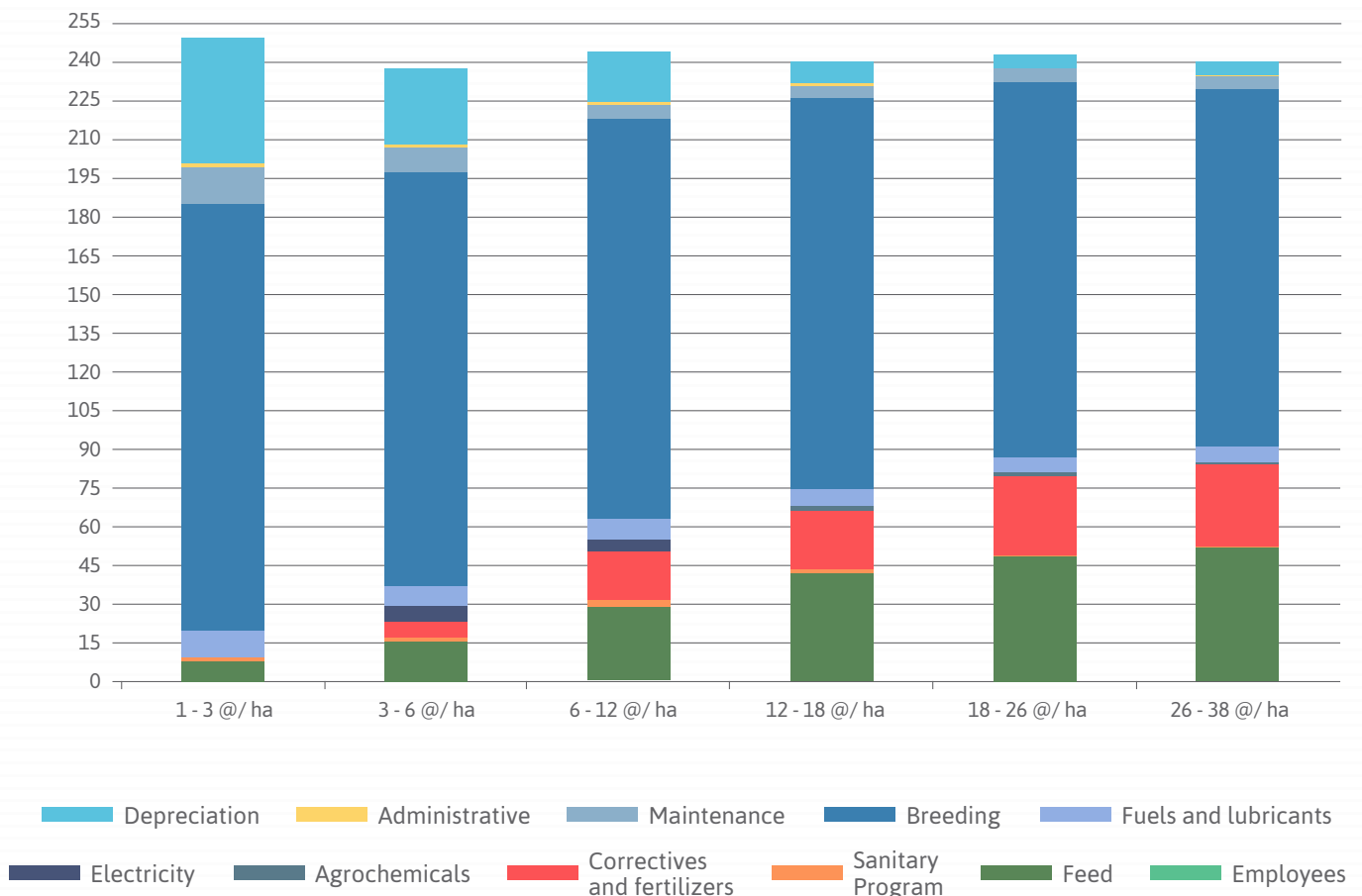


Source: Athenagro

Graph 7 Production cost in rearing and finishing farms for six technologies levels - 2021 average

Rearing and finishing - R\$/@ COMPOSITION OF RESULTS	Extractivism 1-3 @/ha	Low Tech 3-6@/ha	Medium Tech 6-12@/ha	Appropriate 12-18@/ha	High Tech 18-26@/ha	Intensive 26-38@/ha
Feed	7.63	16.30	29.47	41.45	46.68	51.33
Sanitary Program	1.58	2.05	2.10	1.52	1.45	1.41
Correctives and fertilizers	0	4.60	19.77	22.51	30.84	32.96
Agrochemicals	0	7.33	4.27	2.98	1.50	0.81
Fuels and lubricants	9.97	7.26	6.98	5.33	5.06	4.93
Replacement	158.90	153.01	150.23	147.55	142.46	137.71
Employees	10.83	9.83	6.48	4.89	4.74	3.85
Maintenance	15.62	8.41	5.87	4.85	4.27	3.71
Administrative	1.08	0.98	0.65	0.49	0.47	0.39
Electricity	0.50	0.36	0.35	0.27	0.25	0.25
Depreciation	43.53	27.04	19.19	8.90	5.94	4.70
Total operating costs	249.63	237.16	245.36	240.74	245.67	242.05

Production cost in rearing and finishing farms for six technologies levels rearing and finishing - 2020 Average - R\$/@



Source: Athenagro



LIVESTOCK FARMING WORLDWIDE

Table 9 Largest herds and beef producers in the world in 2021

Country	Bovine herd, considering buffalo herd in the most expressive countries - in millions of heads	World %	Beef production, considering buffalo meat in the most expressive countries (thousand CWE.)	World %
USA	91,99	5.49%	12,703,34	17.87%
Brazil	196,47	11.72%	9,714,25	13.66%
China	91,78	5.47%	6,748,08	9.49%
Argentina	54,66	3.26%	3,010,56	4.23%
India	305,40	18.22%	2,421,59	3.41%
Pakistan	92,14	5.50%	2,243,94	3.16%
Mexico	36,41	2.17%	2,122,31	2.98%
Australia	24,47	1.46%	2,120,49	2.98%
Russia	17,97	1.07%	1,636,11	2.30%
France	17,96	1.07%	1,432,86	2.02%
Turkey	18,42	1.10%	1,115,19	1.57%
Uzbekistan	13,28	0.79%	960,61	1.35%
Colombia	28,51	1.70%	751,77	1.06%
Paraguay	14,16	0.84%	566,71	0.80%
Other	672,97	40.14%	71,100,35	33.13%
Total	1,676,59	100%	71,100,35	100%

Source: Athenagro, data FAO, OECD, USDA (2021)

CWE: Carcass Weight Equivalent

Graph 8 Evolution of production of beef and buffalo meat between 2011 and 2021 - thousand T CWE

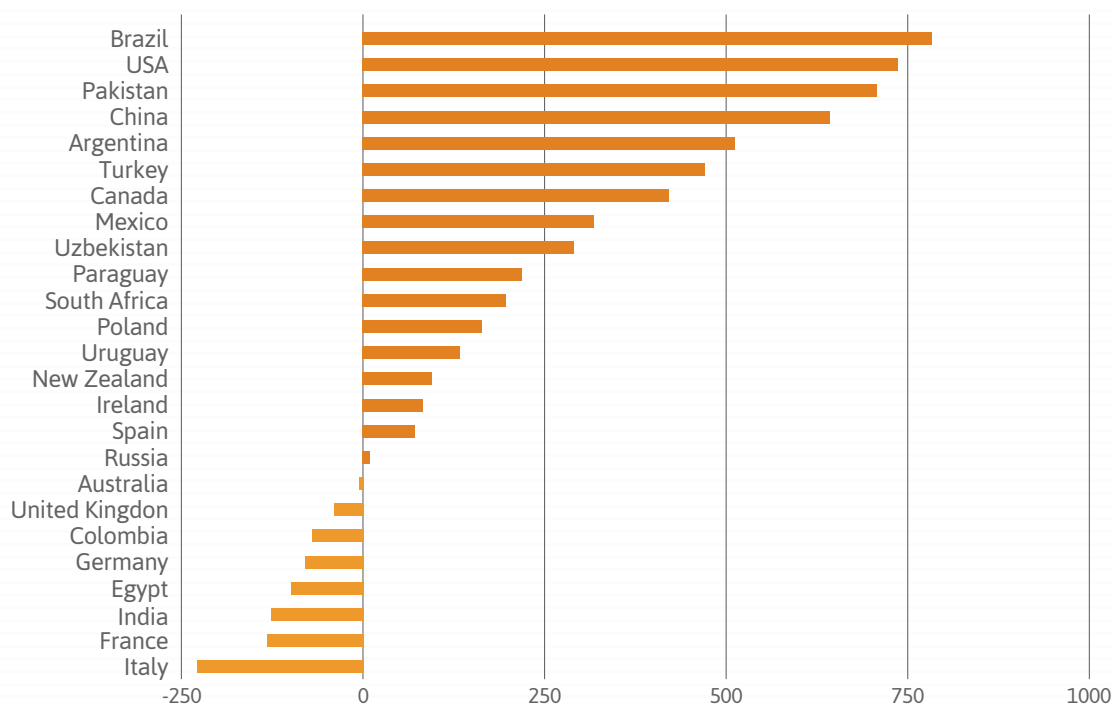


Table 10 Largest beef exporters in 2021

Exports and World production of beef and buffalo meat (1000 CWE)				
Ranking 2021	Exports	Production (1000 cwe)	Imports	Exports over Production + Imports
Brazil	2,478,2	9,714,2	78,4	25.3%
Australia	1,416,9	1,837,5	20,9	76.2%
USA	1,709,9	12,699,0	1,508,8	12.0%
India	1,278,8	2,421,6	0,0	52.8%
Argentina	823,7	3,010,6	8,4	27.2%
New Zealand	688,1	718,9	9,9	94.4%
Netherlands	660,7	420,2	464,4	74.6%
Poland	640,4	556,0	47,4	106.1%
Ireland	651,7	614,5	36,0	100.1%
Canada	624,4	1,500,8	214,0	36.4%
Uruguay	558,0	614,1	31,0	86.5%
Germany	374,5	1,097,2	468,9	23.9%
Paraguay	500,0	554,8	3,3	89.6%
Mexico	340,4	2,121,0	194,5	14.7%
France	279,0	1,415,3	305,4	16.2%
Spain	255,4	688,8	129,3	31.2%
Belgium	200,1	261,7	98,3	55.5%
Belarus	187,3	335,1	11,3	54.0%
Nicaragua	177,6	159,8	1,0	110.4%
United Kingdom	173,2	885,0	378,9	13.7%
Italy	170,4	793,9	395,9	14.3%
Austria	163,9	228,0	61,3	56.6%
Other	953,0	28,680,3	10,838,6	2.4%
Total	15,305,6	71,328,2	15,305,6	21.4%

Note: We attribute the divergence of information to the cases of countries whose exports exceed the sum of production and imports

Source: Athenagro, data FAO, USDA, OCDE, Secex/Ministério da Economia

Table 11

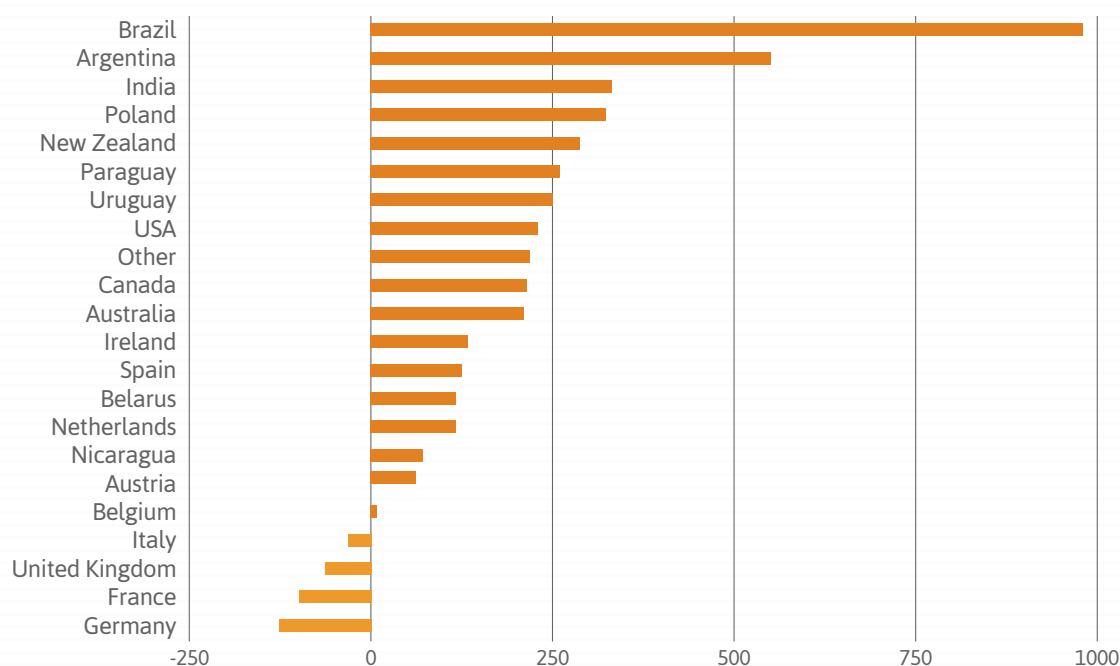
Largest world importers of beef and buffalo meat and representativeness of Brazilian beef in each market in 2021

Countries	Total imports Thousand CWE	Imports from Brazil Thousand CWE	% BR in the total
China	2,591,57	940,67	36.30%
Hong Kong	592,01	263,27	44.47%
USA	1,508,81	240,43	15.94%
Chile	368,09	144,16	39.16%
Egypt	716,36	97,44	13.60%
United Arab Emirates	195,55	64,78	33.13%
Philippines	181,04	60,76	33.56%
Saudi Arabia	172,95	52,16	30.16%
United Kingdom	378,88	49,68	13.11%
Israel	142,40	45,74	32.12%
Russia	367,09	43,75	11.92%
Italy	395,87	40,48	10.22%
Singapura	56,83	34,93	61.46%
Netherlands	464,41	33,92	7.30%
Uruguay	30,96	30,75	99.31%
Jordan	52,06	23,71	45.55%
Indonesia	274,25	21,60	7.88%
European Union	2,717,44	173,26	16.19%
Other	5,696,99	2,478,25	6.38%
Unattributed data (not yet declared by importers)*	1,119,45	-	-
World	15,305,58	2,478,25	16.19%

Source: Athenagro, data FAO, OECD, USDA
* for this reason, in some destinations, Brazilian exports may exceed 100% of the total imported

Graph 9

Evolution of beef exports between 2011 and 2021, in thousand CWE



Source: Athenagro, FAO, USDA, OCDE, Secex/Ministério da Economia

Table 12 Largest beef consumers in 2021

Ranking 2021	Total consumption Thousand CWE	Population Million	Per capita consumption kg/inhabitant/year	Comparison of availability per capita in relation to the average
USA	12,497,9	330,7	37,8	405.9%
China	9591,1	1,418,1	6,8	72.6%
Brazil	7,314,4	212,6	34,4	369.5%
Argentina	2,195,2	45,8	47,9	514.3%
Pakistan	2,165,6	212,5	10,2	109.4%
Mexico	1,975,1	129,0	15,3	164.4%
Russia	1,954,5	146,1	13,4	143.6%
Egypt	1,464,9	102,9	14,2	152.9%
France	1,449,7	65,3	22,2	238.4%
Japan	1,321,2	125,4	10,5	113.1%
Germany	1,201,8	83,3	14,4	154.9%
India	1,142,8	1,392,0	0,8	8.8%
Turkey	1,115,5	84,6	13,2	141.6%
United Kingdom	1,090,7	67,3	16,2	174.1%
Canada	1,090,3	38,2	28,6	306.6%
Italy	1,022,2	59,6	17,2	184.2%
South Africa	979,1	60,5	16,2	173.7%
Uzbekistan	953,0	34,4	27,7	297.1%
Korea	925,9	51,8	17,9	191.9%
Indonesia	781,6	272,2	2,9	30.8%
Colombia	691,6	51,0	13,5	145.5%
Vietnam	613,0	98,3	6,2	66.9%
Spain	571,5	47,2	12,1	130.1%
Chile	570,4	19,7	28,9	310.7%
Uruguay	87,0	3,5	24,5	263.6%
Other	16,649,2	2,512,8	6,6	71.1%
World	71,328,2	7,661,5	9,3	100.0%

Source: Athenagro, data FAO, USDA, OCDE, IBGE

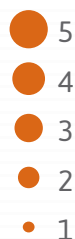
Note: Data were calculated from the consumption balance (Production + Imports - Exports), including buffalo meat in the most relevant countries

INDUSTRY

Map 2

Location cattle slaughter house with federal inspection (SIF) assets in 2021

SIFs



Source: ABIEC, MAPA

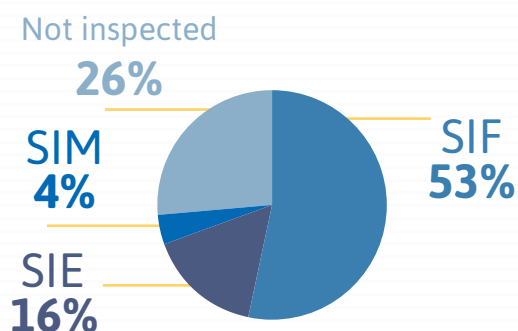
Graph 10 Slaughter per type of inspection - 2021

2021	% Slaughter	% beef	Million heads	Million tons
SIF	53%	59%	20.9	5.7
SIE	16%	15%	6.3	1.4
SIM	4%	4%	1.7	0.4
Not inspected	26%	23%	10.2	2.2
Total	100%	100%	39.15	9.71

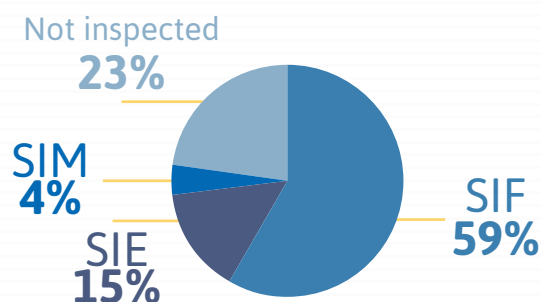
Source: Athenagro, dados IBGE

*Estimated values

Slaughter per type of inspection - million heads 2021



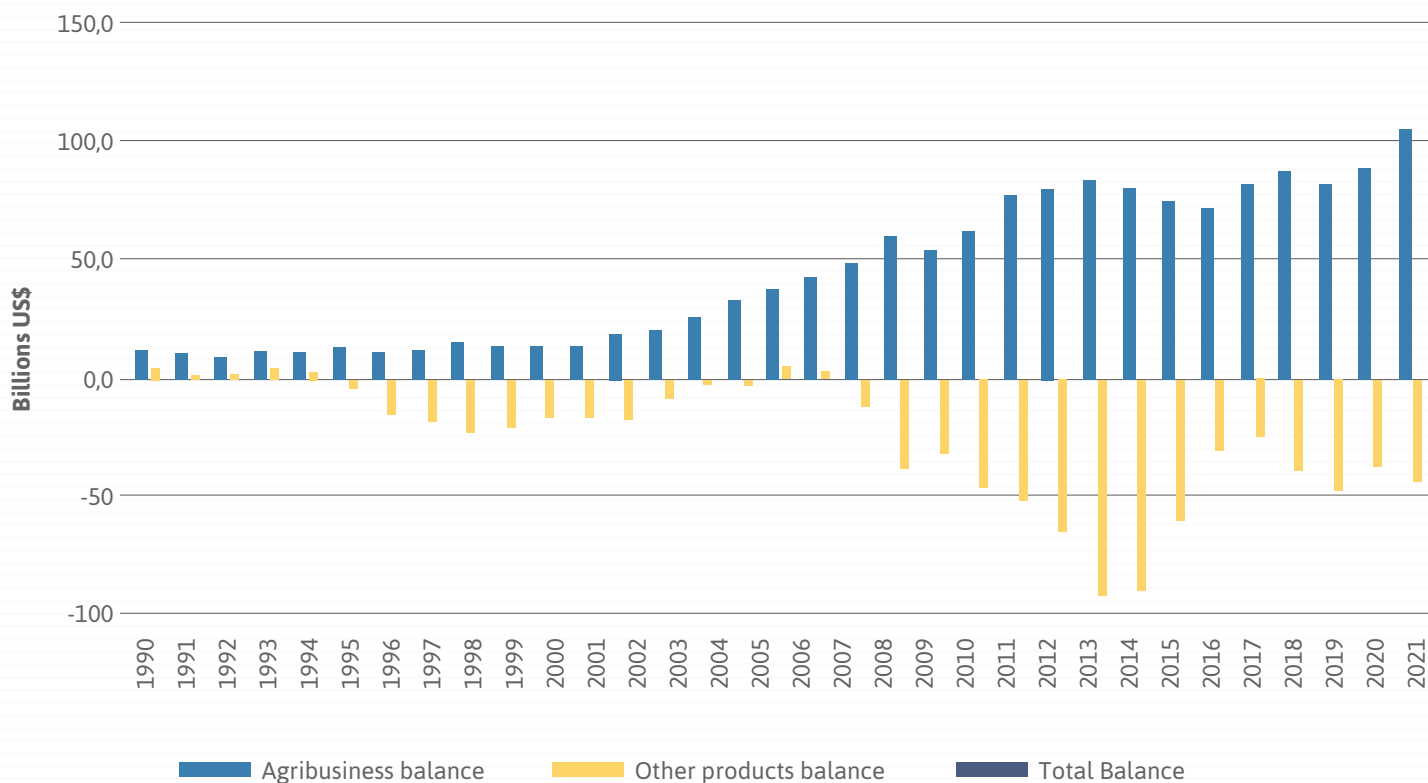
Beef production per type of inspection - million tons 2021



Graph 11 Agribusiness Balance (Billions US\$)

Year	Total Export	Total imports	Total Balance	Agribusiness exports	Agribusiness imports	Agribusiness balance	Other products balance	Beef exports	Share of beef exported in the totality of the Agribusiness Sector
2010	200,43	183,34	17,10	76,40	13,50	63,00	-45,90	4,78	6.26%
2011	253,67	227,97	25,70	94,92	17,51	77,41	-51,71	5,34	5.63%
2012	239,95	225,17	14,79	95,75	16,41	79,34	-64,55	5,73	5.98%
2013	232,54	241,50	-8,96	99,93	17,06	82,87	-91,83	6,65	6.65%
2014	220,92	230,82	-9,90	96,66	16,61	80,04	-89,94	7,09	7.33%
2015	186,78	173,10	13,68	88,17	13,07	75,10	-61,42	5,76	6.53%
2016	179,53	139,32	40,20	84,94	13,63	71,31	-31,10	5,34	6.29%
2017	214,99	158,95	56,04	96,01	14,15	81,86	-25,82	6,07	6.32%
2018	231,89	185,32	46,57	101,70	14,04	87,13	-40,56	6,54	6.47%
2019	221,13	185,93	35,20	96,85	13,8	83,07	-47,87	7,63	7.88%
2020	209,18	158,79	50,39	100,70	13,05	87,65	-37,25	8,48	8.42%
2021	280,81	219,41	61,41	120,52	15,53	104,99	-43,59	9,20	7.63%

Agribusiness balance - Billions US\$



Source: Athenagro, Agrostat, Secex/Ministério da Economia, Conab

Table 14 Total agribusiness exports, highlighting how much the exports of beef and other beef products account for this total in 2021.

Livestock Exports	US\$ million 22,910.66	Thousand Tonnes 8,489,64	% US\$ 100%
Chicken	7,488.52	4,467,58	32.69%
Fresh	7,199.14	4,364,17	31.42%
Processed	289,38	103,41	1.26%
Beef	9,200.39	1,845,00	40.16%
Fresh	7,967.40	1,560,20	34.78%
Processed	776,22	111,23	3.39%
Offals	456,77	173,74	1.99%
Swine	2,616.70	1,118,04	11.42%
Fresh	2,274.53	1,015,18	10.80%
Turkey meat	110,38	47,00	0.48%
Fresh	93,17	42,00	0.41%
Processed	17,21	5,00	0.08%
Hides and hide products	1,761.68	409,00	7.69%
Other livestock products	1,098.49	482,00	4.79%
Live animals	168,84	31,00	0.74%
Live cattle	68,48	29,00	0.30%
Fish	367,80	51,00	1.61%
Dairy products	97,85	39,00	0.43%
Export Group - AGRIBUSINESS		US\$ million	%
Total exports from livestock		11,130.92	9%
Total for other sectors (without beef products)		11,779.74	10%
Total for other sectors (without livestock)		97,610.79	81%
Total exports from AGRIBUSINESS		120,521.45	43%

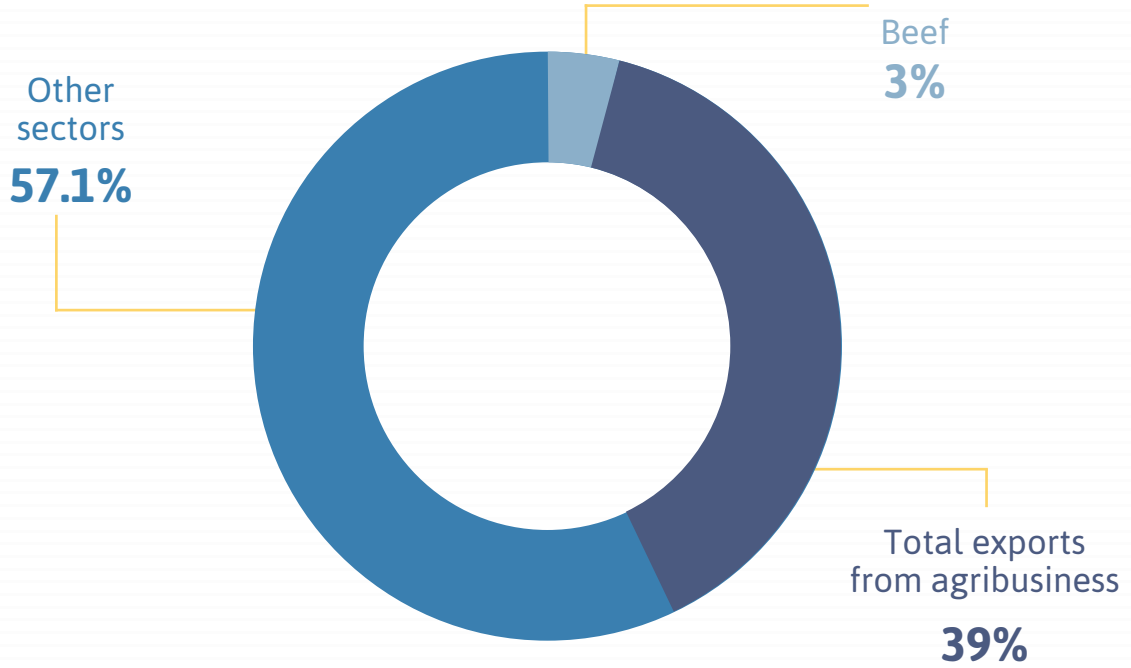
Source: Athenagro, MAPA, Secex/Ministério da Economia, AgroStat

Export Group - BRAZIL	US\$ million	%
Beef	11,130.92	4%
Total exports from agribusiness	109,390.53	39%
Other sectors	160,293.13	57%
Total Brazil exports	280,814.58	100%

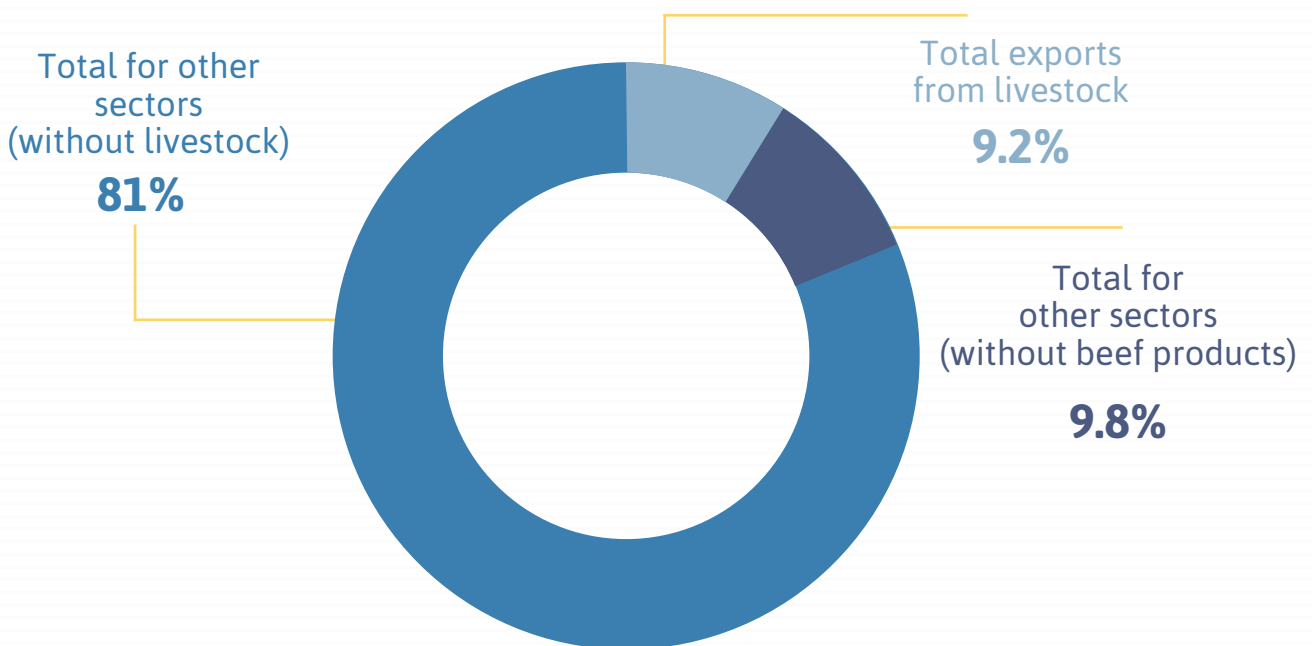
Source: Athenagro, MAPA, Secex/Ministério da Economia, AgroStat

Graph 12 Representativeness of beef (cattle) exports in the total exported by Brazil in 2021

Share of Brazilian exports by sector

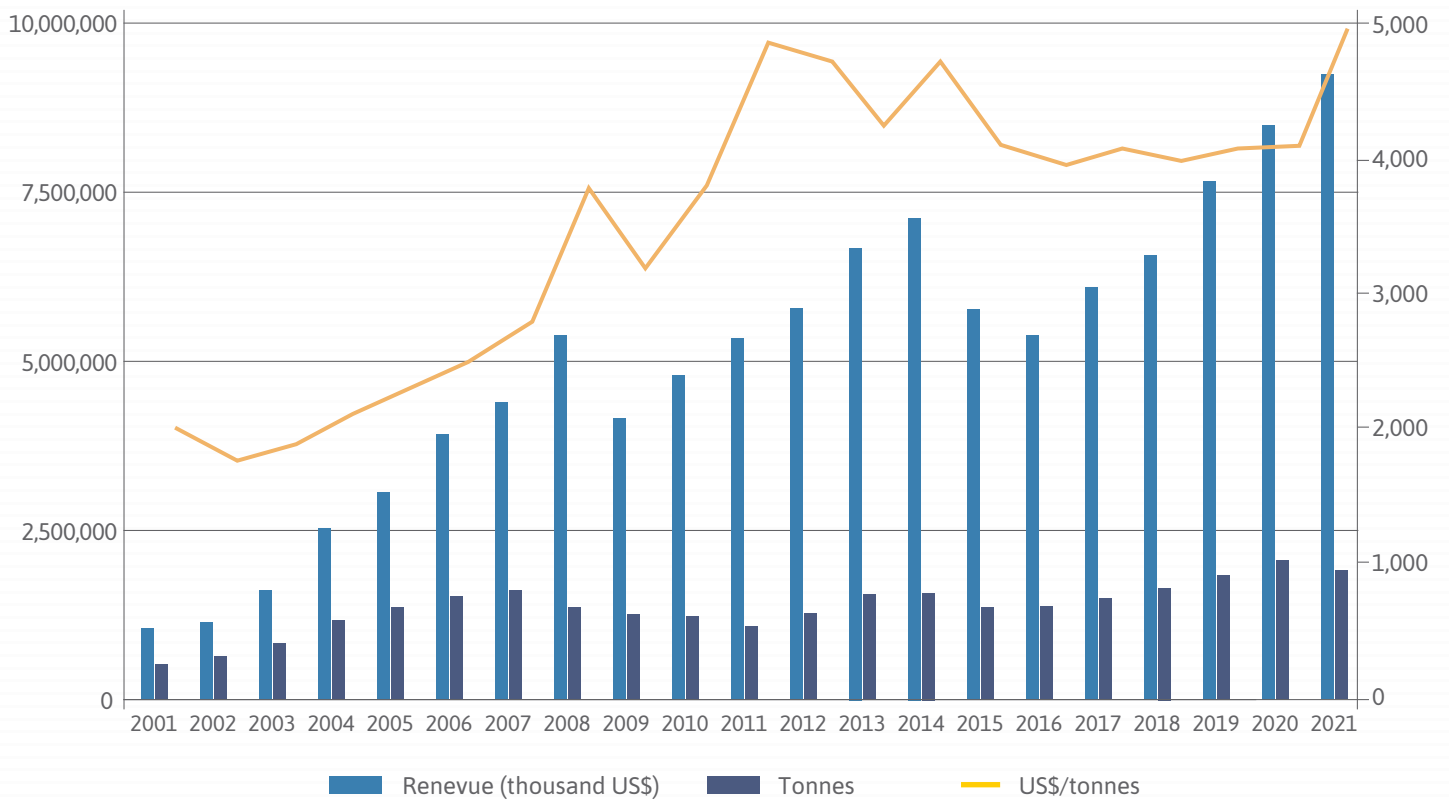


Share exports by agrobusiness



Source: Athenagro, MAPA, Secex/Ministério da Economia, AgroStat

Graph 12 Evolution of Brazil's beef exports



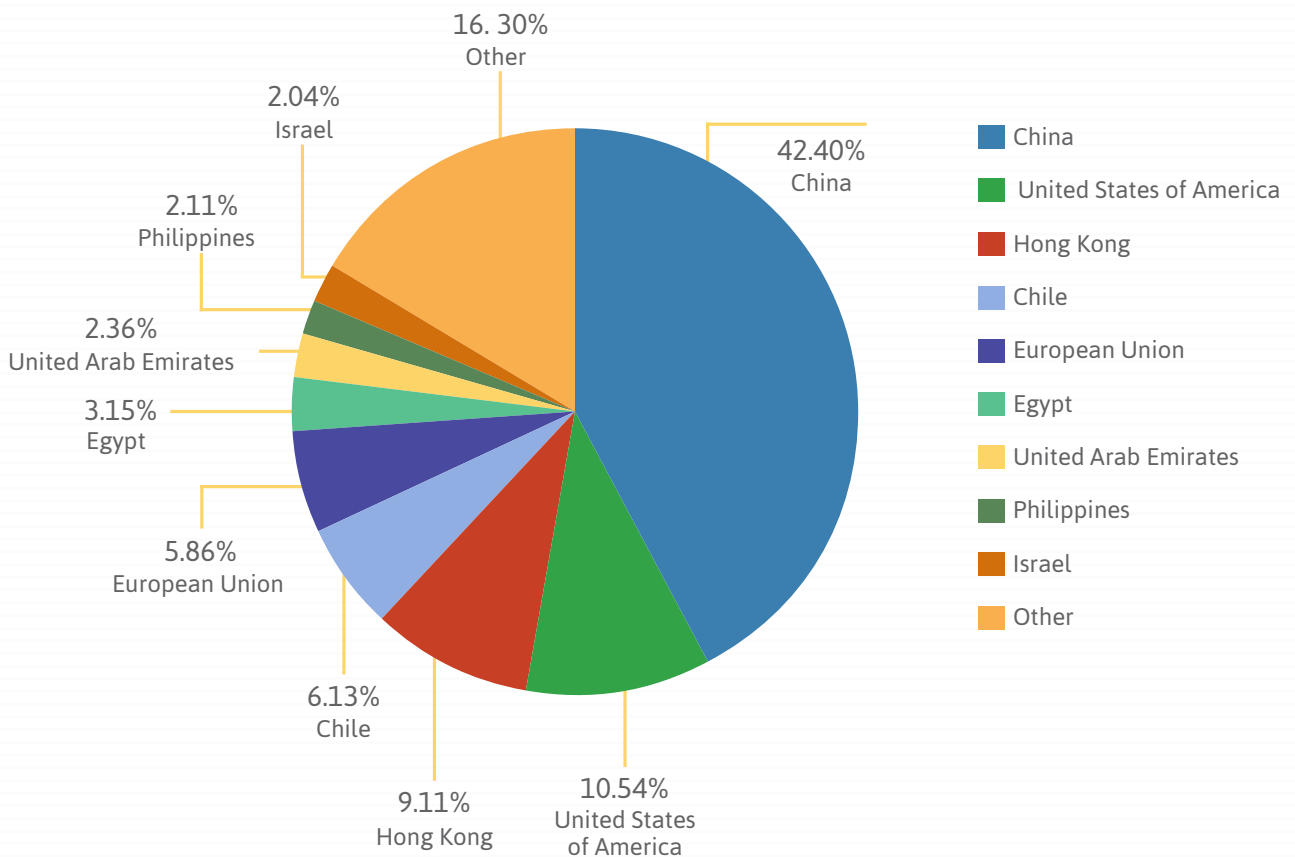
Source: SECEX/ Ministry of Economy / ABIEC



Graph 13 Main destinations for Brazilian Beef exported in 2021 - in revenue (Thousand US\$)

Country	Revenue (Thousand US\$)	Revenue (%)
China	3,908,071,07	42.40%
United States of America	971,681,01	10.54%
Hong Kong	839,842,27	9.11%
Chile	564,688,93	6.13%
European Union	539,933,99	5.86%
Egypt	290,415,33	3.15%
United Arab Emirates	217,372,83	2.36%
Philippines	194,173,40	2.11%
Israel	187,933,43	2.04%
Other	1,502,116,86	16.30%
World	9,216,229,12	100%

Source: ABIEC, Ministry of Economy, Secex

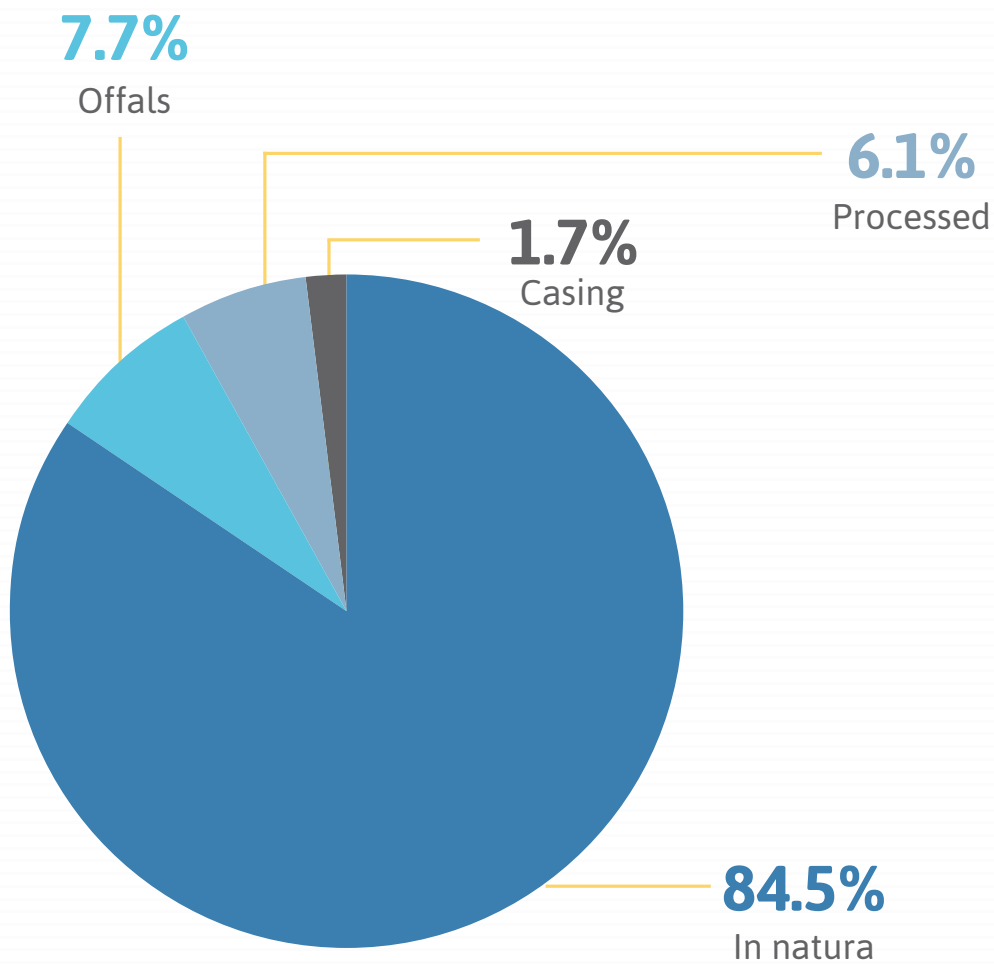


Source: SECEX/ Ministry of Economy / ABIEC

Table 15 Beef exports per category - 2021

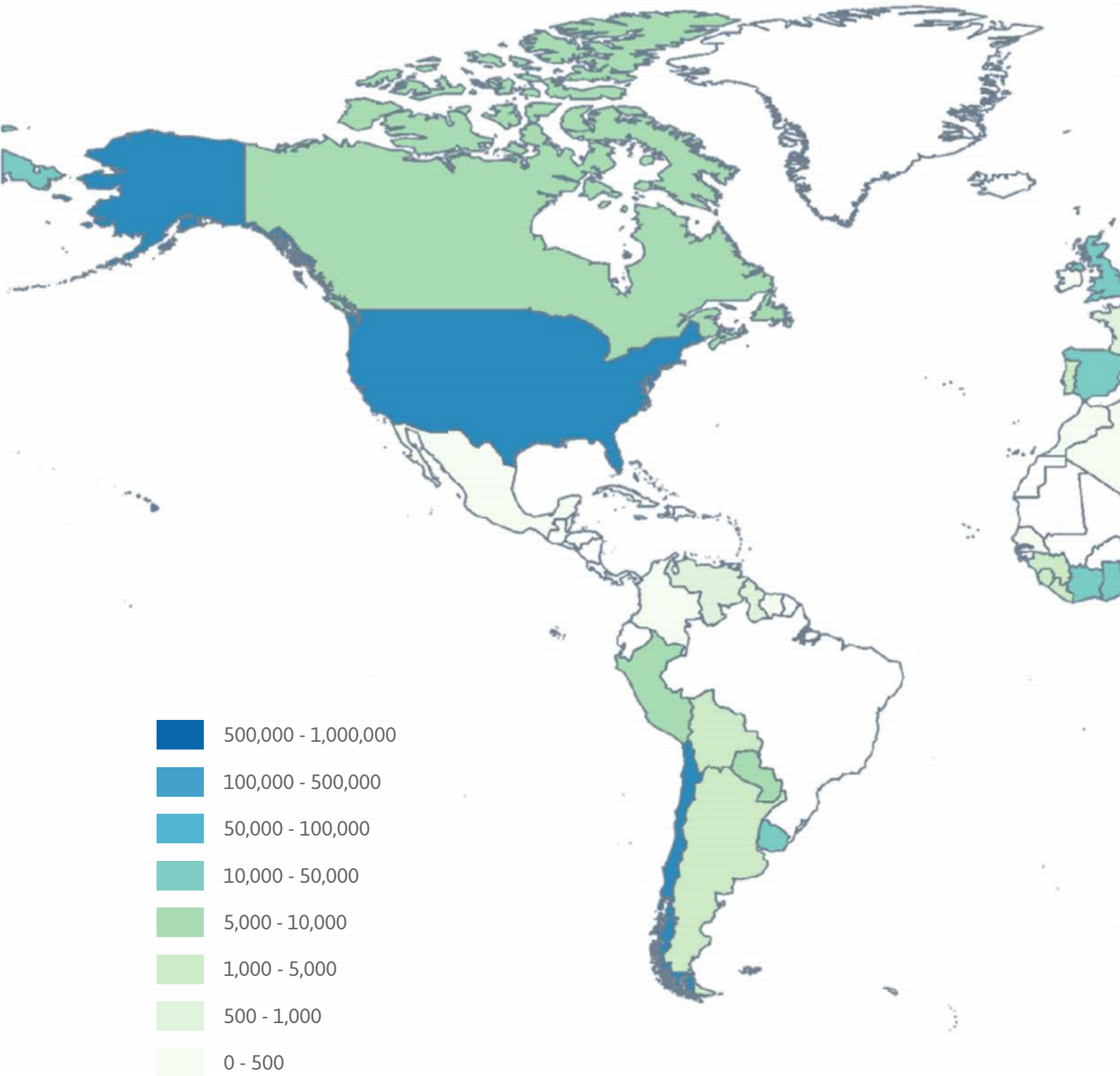
Category	Thousand US\$	Tonnes
In natura	7,967,403	1,560,200
Processed	791,922	112,262
Offals	347,554	142,402
Casing	106,054	30,769
Salted	3,295	611
Total	9,216,229	1,846,243

Source: SECEX/ Ministry of Economy / ABIEC

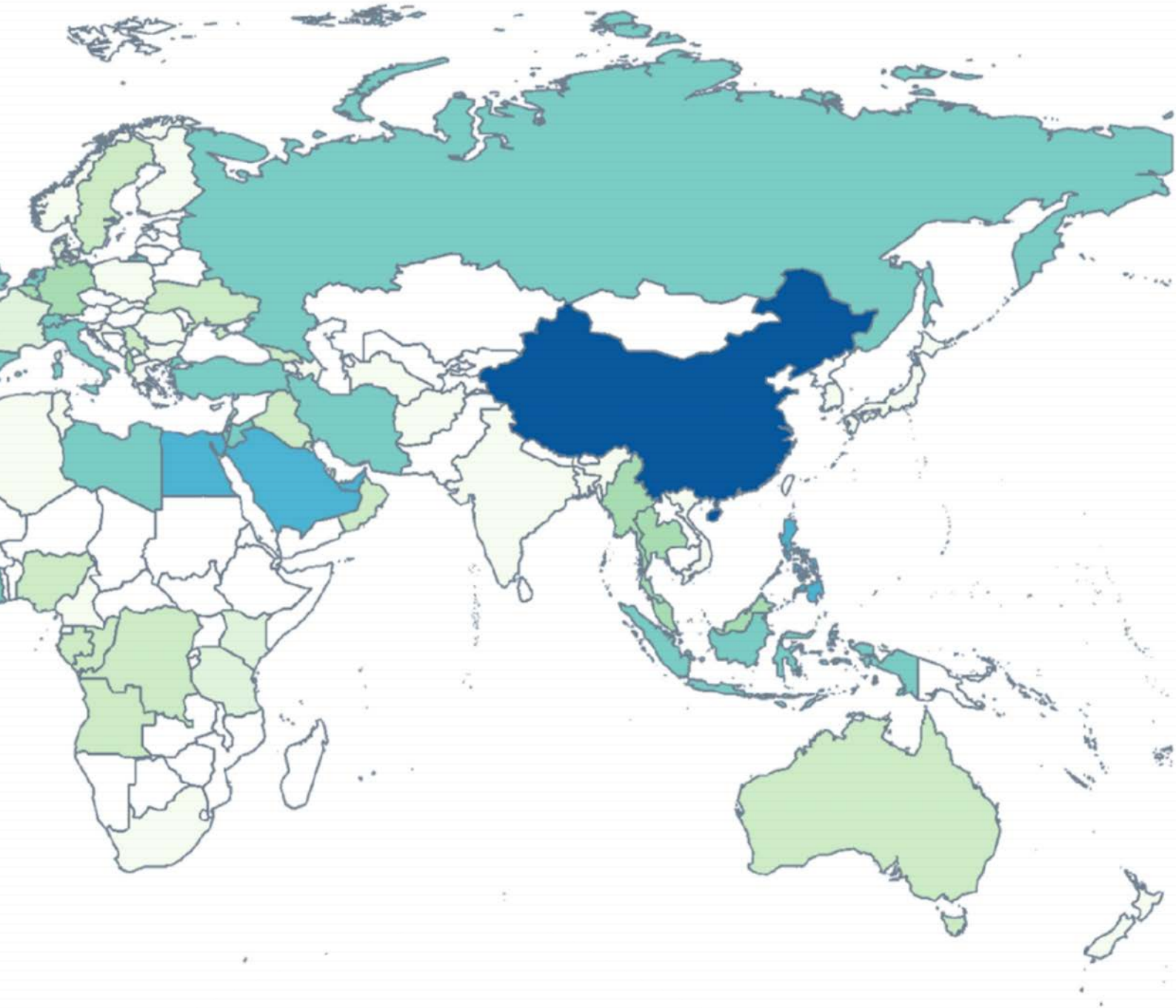




Mapa 3 Purchasers of Brazilian beef - 2021 (CWE)



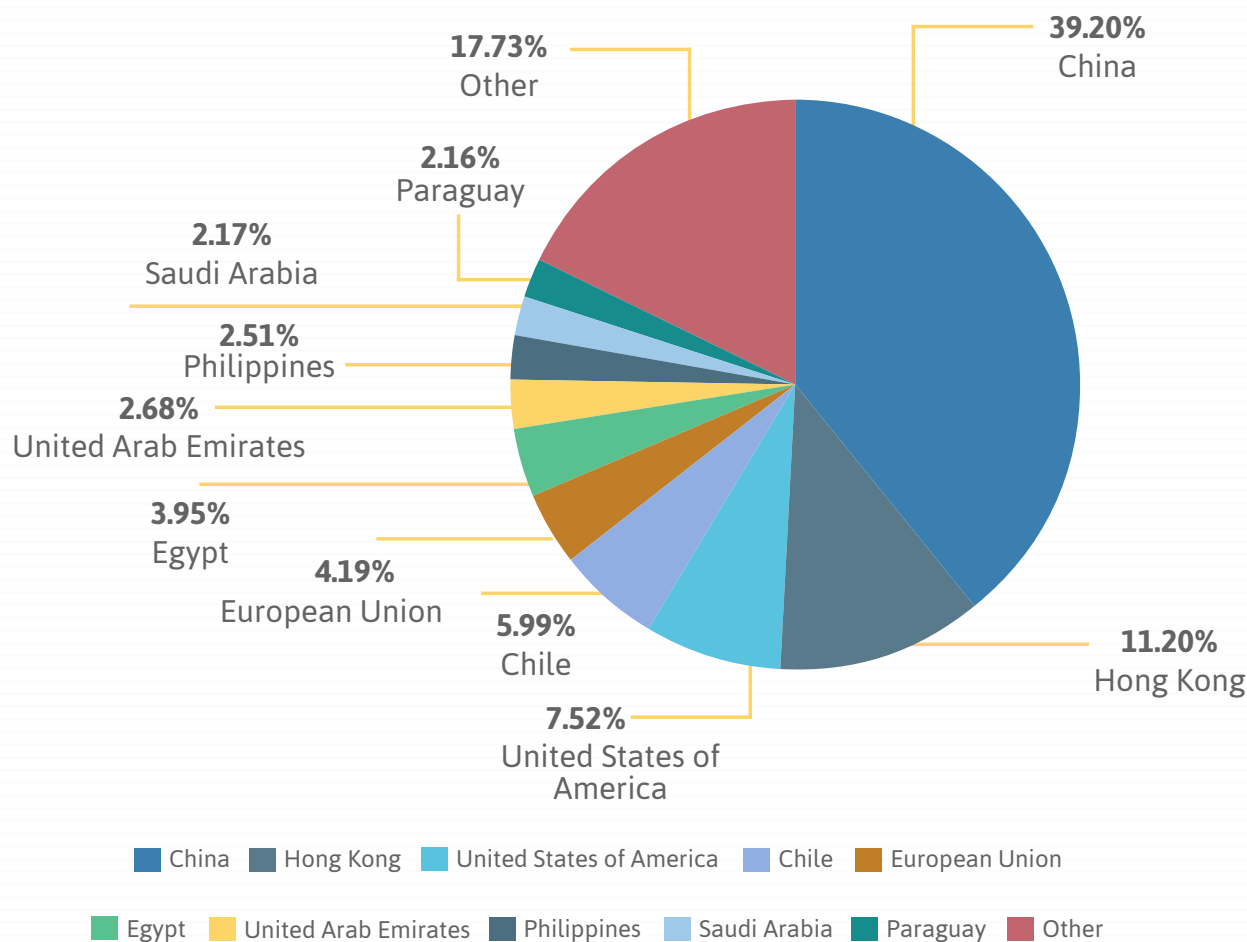
Source: Athenagro, Secex/Ministry of Economy



Graph 14 Main destination for Brazilian beef exported in 2021 - in volume (Tonnes)

Country	Tonnes	Tonnes (%)
China	723,656	39.20%
Hong Kong	219,933	11.91%
United States of America	138,783	7.52%
Chile	110,567	5.99%
European Union	77,266	4.19%
Egypt	72,968	3.95%
United Arab Emirates	49,487	2.68%
Philippines	46,350	2.51%
Saudi Arabia	40,059	2.17%
Paraguay	39,799	2.16%
Other	327,375	17.73%
World	1,846,243	100%

Fonte: ABIEC, Ministério da Economia, Secex

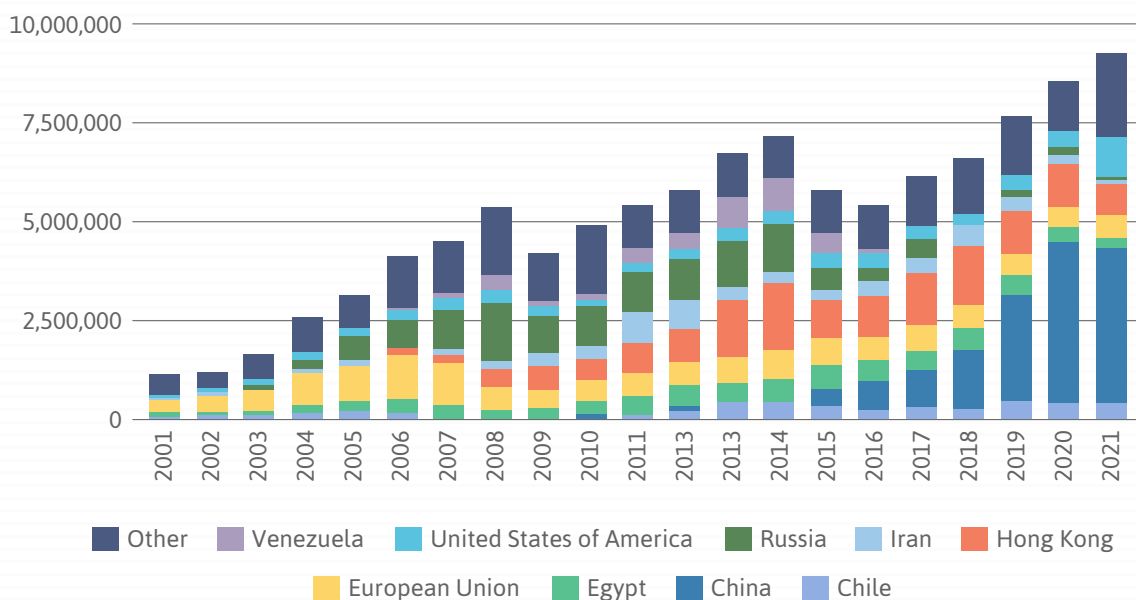


Source: SECEX/ Ministry of Economy / ABIEC

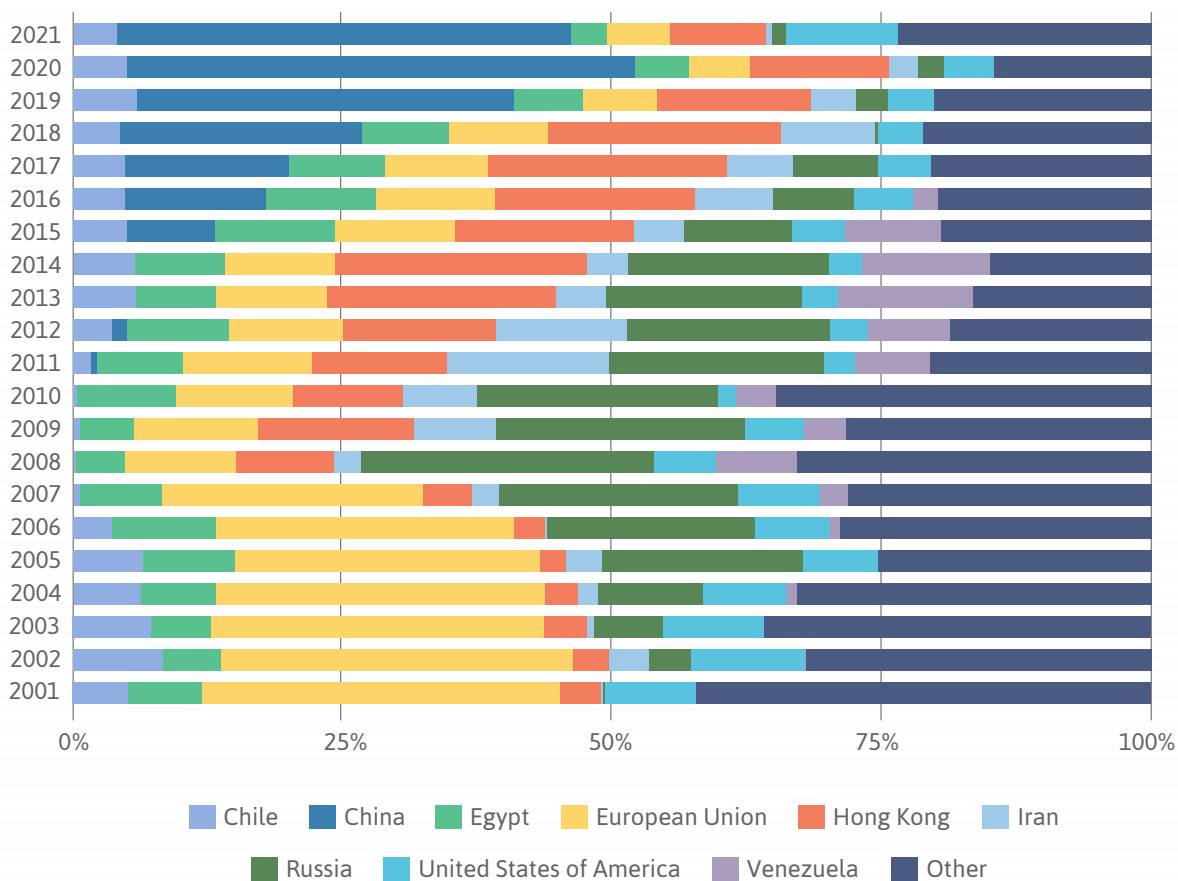
Graphs 15 e 16

Evolution of the ranking of the largest importers of Brazilian beef - Revenue (thousand US\$)

Largest importes of Brazilian beef - thousand US\$



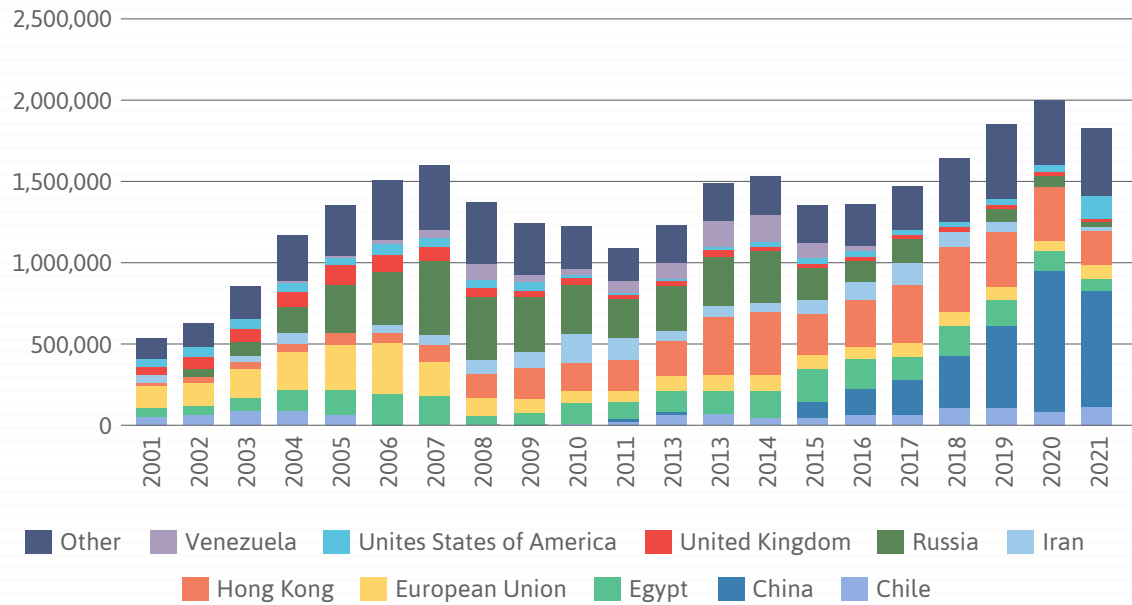
Largest importes of Brazilian beef - %



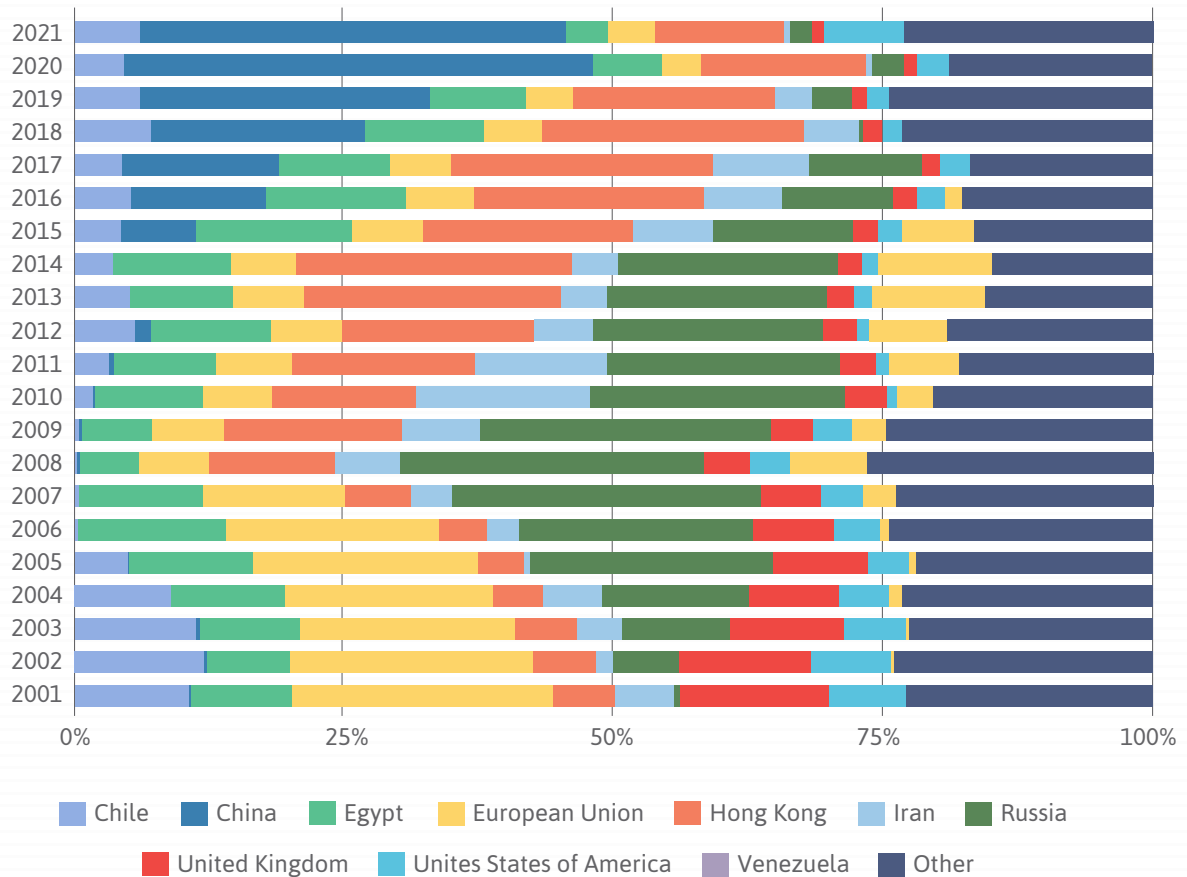
Source: SECEX/ Ministry of Economy / ABIEC

Graphs 17 e 18 Evolution of the ranking of the largest importers of Brazilian beef - tonnes

Largest importes of Brazilian beef - tonnes



Largest importes of Brazilian beef - %





14

5030
970-396-0834

574

LIVESTOCK: PAST HISTORY AND FUTURE PROJECTIONS

Tabela 16

History of the Brazilian herd, beef production, exports, imports, consumption, per capita consumption of beef in the last ten years

	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Herd	Million heads	181,5	181,4	183,5	186,9	187,5	189,4	188,2	187,5	188,9	190,8	196,5
Beef production	Thousand CWE	8,932	9,111	9,686	10,179	9,602	10,208	9,816	10,780	10,422	9,797	9,714
Exports	Thousand CWE	1,492	1,679	2,003	2,042	1,828	1,825	1,968	2,194	2,483	2,691	2,478
Imports	Thousand CWE	45	60	57	77	59	64	57	47	50	63	71
Consumption	Thousand CWE	7,485	7,493	7,740	8,215	7,832	8,446	7,905	8,633	7,989	7,169	7,307
Consumption per capita	kg/inhab/year	38	38	39	41	38	41	38	41	38	34	34

Source: Athenagro, Secex/Ministry of Economy, IBGE

CWE: Carcass Weight Equivalent

Table 17

Historic data and projection for livestock until 2031

In the most conservative scenario, Brazilian beef exports will exceed three million tonnes between 2025 and 2030. In order to make sure that this meets the needs of internal and external markets, beef production will need to increase by 35% between 2020 and 2030. This increase will only be possible with a 45% increase in the average productivity of Brazilian livestock.

Variável	Unidade	2001	2006	2011	2016	2021	2026	2031
Total Herd	1.000 head	167,534	176,657	181,507	189,418	196,468	201,529	203,131
Production	1.000 CWE	7,179	8,005	8,932	10,208	9,714	11,751	12,742
Exports	1.000 CWE	835	2,186	1,492	1,825	2,478	2,658	2,852
Imports	1.000 CWE	42	28	45	64	71	68	66
Domestic Consumption	1.000 CWE	6,386	5,848	7,485	8,446	7,307	9,162	9,956
Availability per capita	kg of beef/inhabitant/year	36	31	38	41	34	42	44
Estimated consumption of beef	kg of beef/inhabitant/year	29	25	31	33	28	34	35
Slaughter	1.000 head	30,505	34,115	38,204	42,470	39,143	45,810	47,506
Pasture Area	1.000 ha	182,932	180,478	177,228	167,113	163,152	155,874	151,582
Occupancy rate	head/ha	0,92	0,98	1,02	1,13	1,20	1,29	1,34
Capacity	animal units/ha	0,75	0,78	0,81	0,90	0,93	1,00	1,03
Carcass average weight	kg/slaughtered head	235,33	234,66	233,81	240,35	248,17	256,53	268,22
Off-take	Percentage	18%	19%	21%	22%	20%	23%	23%

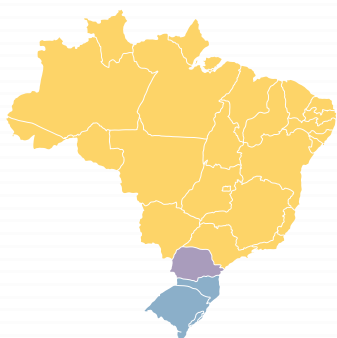
Fonte: Athenagro, IBGE, Secex/Ministério da Economia

CWE: Carcass Weight Equivalent



ANIMAL HEALTH

FOOT-AND-MOUTH DISEASE



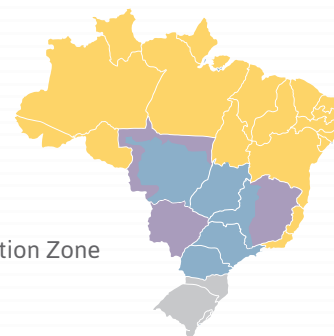
1998

Recognition of the first foot and mouth disease-free zone where vaccination is practiced, comprising the States of Rio Grande do Sul and Santa Catarina.

- FMD-free zone where vaccination is practiced
- Foot and mouth disease-free zone with a suspended recognition
- Infected zone
- Buffer Zone/Protection Zone

2000

Reintroduction of foot-and-mouth disease in the State of Rio Grande do Sul, suspending the sanitary status of foot and mouth disease-free zone where vaccination is practiced for the States of Rio Grande do Sul and Santa Catarina.



- Foot and mouth disease-free zone with a suspended recognition
- FMD-free zone where vaccination is practiced
- Infected zone
- Buffer Zone/Protection Zone



2001

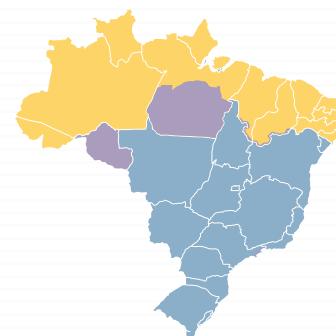
Expansion of the foot-and-mouth disease-free zone where vaccination is practiced, with the recognition of the States of Bahia, Espírito Santo, Mato Grosso do Sul, Rio de Janeiro, Sergipe, Tocantins and part of Goiás, Minas Gerais and São Paulo.

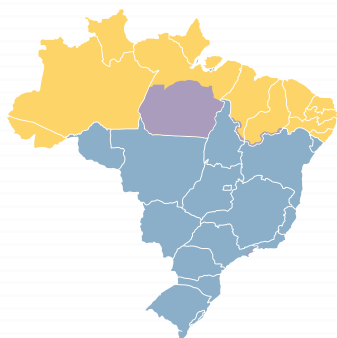
- Foot and mouth disease-free zone with a suspended recognition
- FMD-free zone where vaccination is practiced
- Infected zone
- Buffer Zone/Protection Zone

2002

The sanitary status as a foot-and-mouth disease-free zone where vaccination is practiced was restored for the States of Rio Grande do Sul and Santa Catarina.

- FMD-free zone where vaccination is practiced
- Infected zone
- Zona Tampão/Zona de Proteção





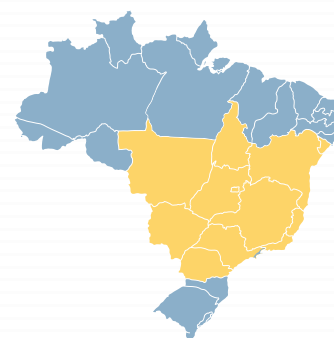
2003

Expansion of the foot and mouth disease-free zone where vaccination is practiced with the recognition of the State of Rondônia.

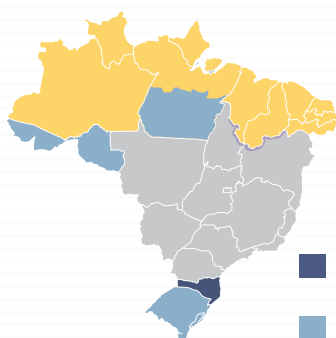
- FMD-free zone where vaccination is practiced
- Infected zone
- Zona Tampão/Zona de Proteção

2005

There was an expansion of the foot and mouth disease-free zone where vaccination is practiced with the recognition of the State of Acre and two municipalities of the State of Amazonas. And there was a reintroduction of the foot-and-mouth disease virus in the States of Mato Grosso do Sul (MS) and Paraná (PR), that resulted in the suspension of the health condition of the foot-and-mouth disease free zone where vaccination is practiced for these States and also for the states of Bahia (BA), Federal District (DF), Espírito Santo (ES), Goiás (GO), Mato Grosso (MT), Minas Gerais (MG), Rio de Janeiro (RJ), São Paulo (SP), Sergipe (SE), and Tocantins (TO).



- Zona livre sem vacinação
- Zona livre com reconhecimento suspenso
- Zona livre com vacinação
- Zona infectada
- Zona Tampão/Zona de Proteção



2007

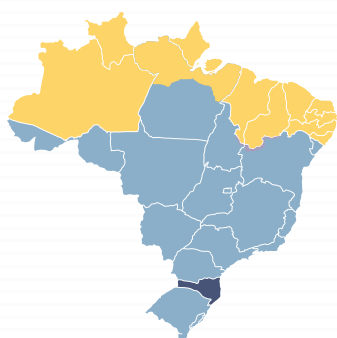
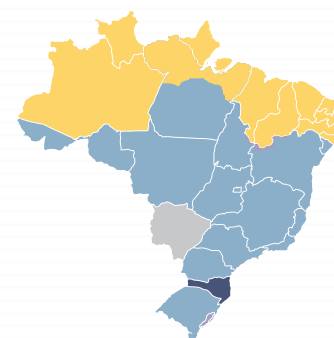
Recognition of the State of Santa Catarina as a foot and mouth disease-free zone where vaccination is not practiced and of the center-south region of the State of Pará as a foot-and-mouth disease free zone where vaccination is practiced.

- FMD-free zone where vaccination is not practiced
- Foot and mouth disease-free zone with a suspended recognition
- FMD-free zone where vaccination is practiced
- Infected zone
- Buffer Zone/Protection Zone

2008

May: restoration of the recognition as a foot-and-mouth disease-free zone for the States of Bahia, Federal District, Espírito Santo, Goiás, Mato Grosso, Minas Gerais, Paraná, Rio de Janeiro, São Paulo, Sergipe and Tocantins.

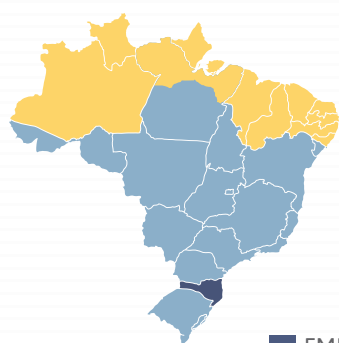
- FMD-free zone where vaccination is not practiced
- Foot and mouth disease-free zone with a suspended recognition
- FMD-free zone where vaccination is practiced
- Infected zone
- Buffer Zone/Protection Zone



2008

July: restoration of the recognition as a foot-and-mouth disease-free zone for the State of Mato Grosso do Sul. Full restoration of suspended area in 2005.

- Zona livre sem vacinação
- Zona livre com vacinação
- Zona infectada
- Zona Tampão/Zona de Proteção



2011

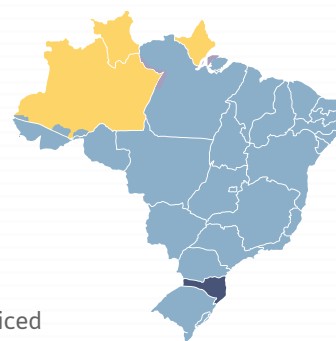
Restoration of recognition of the sanitary status as a foot and mouth disease-free zone where vaccination is practiced in the High Surveillance Zone of the State of Mato Grosso do Sul. - February 2011.

Recognition of the protection zones of Bahia and Tocantins as foot and mouth disease-free zones where vaccination is practiced, and expansion of the foot and mouth disease-free zone where vaccination is practiced in Rondônia and Amazonas - May 2011.

- FMD-free zone where vaccination is not practiced
- FMD-free zone where vaccination is practiced
- Infected zone

2014

Recognition of the states of Alagoas, Ceará, Maranhão, Paraíba, Pernambuco, Piauí, Rio Grande do Norte and the Northern region of the State of Pará as foot and mouth disease-free zones where vaccination is practiced, and their incorporation into the already consolidated free zone in Brazil - May 2014.



- FMD-free zone where vaccination is not practiced
- FMD-free zone where vaccination is practiced
- Infected zone
- Buffer Zone/Protection Zone



2018

Recognition of the States of Amapá, Roraima, parts of Amazonas and Pará (old protection zones) as foot-and-mouth disease-free zones where vaccination is practiced, and their incorporation into the already consolidated free zone in Brazil - May 2018.

- FMD-free zone where vaccination is not practiced
- FMD-free zone where vaccination is practiced

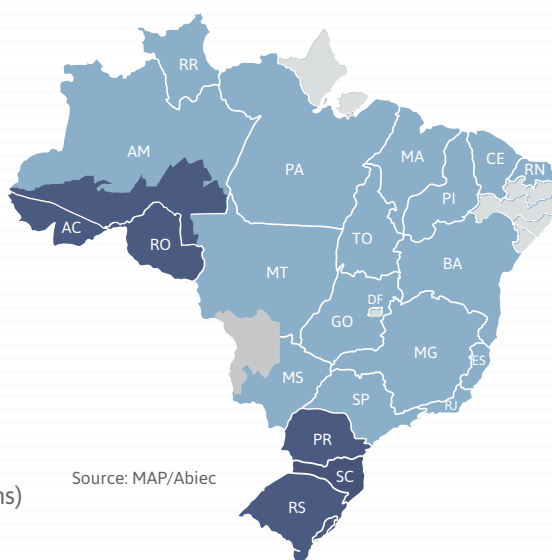
2018 - Commencement of the use of bivalent foot and mouth disease vaccines (A and O), with a 5 ml dose.

2019 - Bivalent vaccines, 2 ml dose.

2020 - Paraná, Acre, Rondônia and Mato Grosso leave the vaccination calendar. Vaccination schedule altered owing to the effects of the Pandemic.

2021 - Paraná, Rio Grande do Sul, Acre, Rondônia, areas of Mato Grosso and Amazonas acquire the status of being FMD-free zones where vaccination is not practiced.

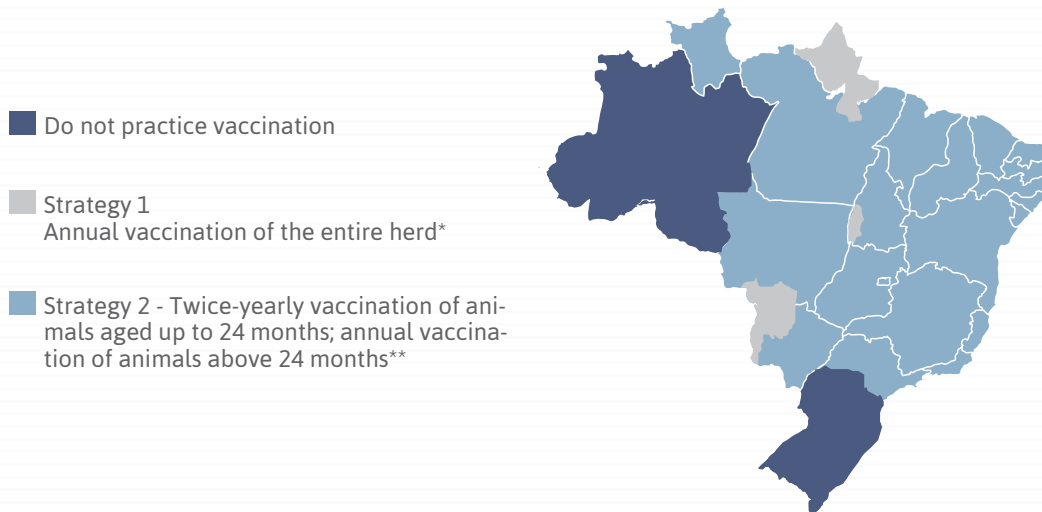
- Strategy 1 (vaccination every six months <24 months and annual < 24 months)
- Strategy 2 (annual vaccination of the entire herd)
- FMD vaccination-free zone



Source: MAP/Abiec

State from Amapá, Pantanal - MS e MT, Ilha do Bananal - TO e Ilha do Marajó - PA
The municipalities of Pacaraima, Normandia, Uiramutã in RR vaccinate 100% of the herd in both semesters (official data)

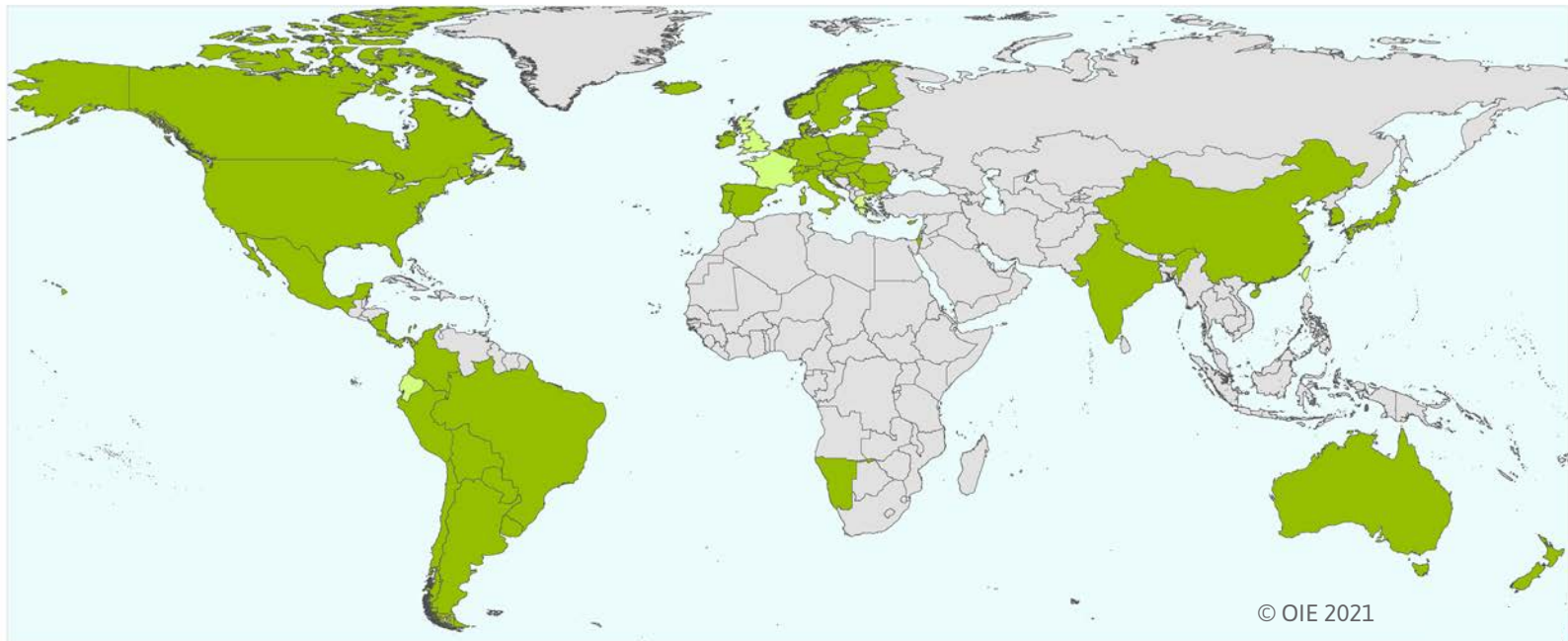
Foot-and-Mouth Disease Vaccination Strategy in Brazil, 2021



BSE

OIE Members' official BSE risk status map

Last update May 2021



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- Members and zones recognised as having a negligible BSE risk status
- Members and zones recognised as having a controlled BSE risk status
- Countries and zones without an OIE official BSE risk status





**Brazilian
Beef**

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