FGV PROJETOS

BRAZILIAN AGRIBUSINESS OVERVIEW

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Headquarters
Praia de Botafogo, 190, Rio de Janeiro – RJ, CEP 22250-900 ou Caixa Postal 62.591
CEP 22257-970, Tel: (21) 3799-5498, www.fgv.br

Institution of technical-scientific, educational and philanthropic character, created on December 20, 1944, as a legal entity of private law with the objective to act, broadly, in all subjects of scientific character, with emphasis on social sciences: administration, law and economics, contributing for the socioeconomical development of the country

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SUMMARY

PRESENTATION

Brazil occupies an outstanding position in the world´s agricultural production. According to data from the United States Department of Agriculture (USDA), the country is the main producer and exporter of orange juice, with a 57% share of the world production and 78,6% of exports, besides coffee and sugar, with 33.3% and 21% of production and 26.8% and 45.7% of exports, respectively. Additionally, the country occupies the 2nd position in soybean production (30.2%) and beef (17.4%), 3rd in poultry production (15%) and maize (7.6%), 4th in soybean oil production (15.4%) and pork meat (3.1%) and the 5th position in cotton production (5.9%), hand-in-hand with expressive figures in exports.

The sector´s national expertise depends on the entire chain that includes the industry, research, policies and management, and has become a model for several regions, especially Africa, Central America and the Caribbean, where there are ecological, economic and social similarities that have already been overcome in Brazil. FGV Projetos, a technical advisory unit for the Getulio Vargas Foundation, main think tank in Latin America, has contributed to the transfer of knowledge to the sector by developing projects that include feasibility studies for the production of food products and biofuel.

This publication presents a comprehensive outlook of the Brazilian agribusiness sector with data, including production and the main companies for each product, as well as the working model that FGV Projetos has been developing throughout the world. With the dissemination of this data, in a structured way, we intend to draw attention to the size and relevance of this sector to attract more investment for its development.

Enjoy the reading!

Cesar Cunha Campos
Director
FGV Projetos

INTRODUCTION

FGV PROJETOS EXPERTISE IN AGRICULTURE

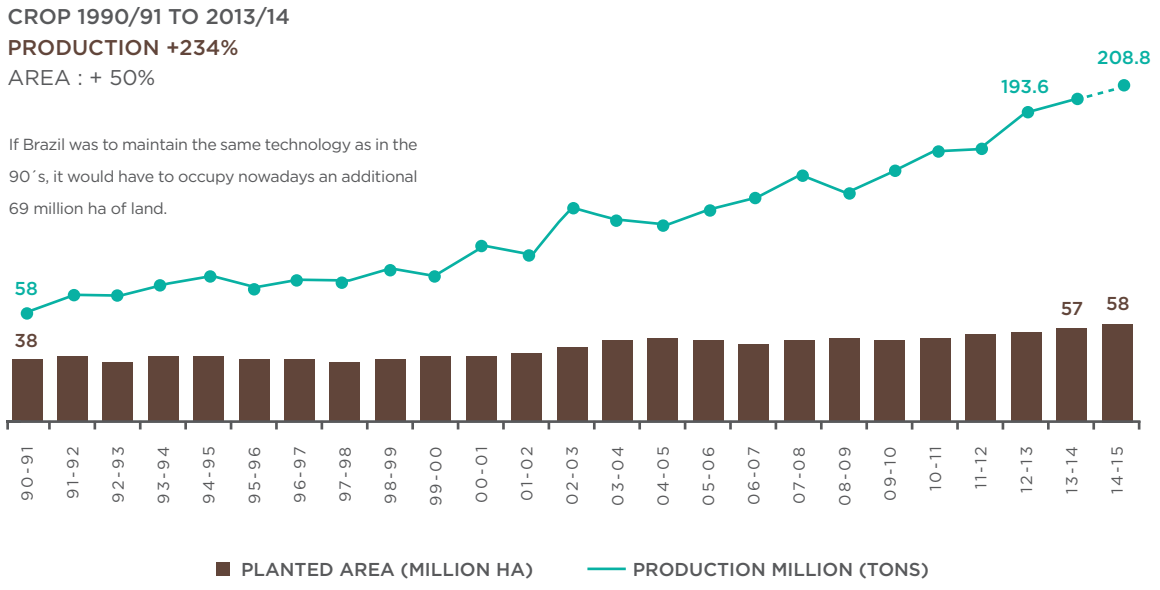
Food safety is not a trivial issue, and neither is it a semantic one: this condition could warrant universal peace. There is no peace wherever hunger is present. The United Nations Organization states that it is necessary to increase food production worldwide by 60% until 2050, when the planet will have 9 billion inhabitants. This is a rather complex goal and one that demands gargantuan efforts on the part of public policies, although 2050 is still very far away and several factors and phenomena could contribute to changing this imagined scenario. At the beginning of the current decade, the OECD and FAO carried out a more appropriate study focusing on the time-frame up to 2020. The work points to the need, up to that year, to augment international food supply by 20%.

This is also not a simple goal to reach: the European Union, for example, will grow around 4%; the United States and Canada can grow 15% at the most, approximate figures for Oceania. The large countries from Eurasia - China, India and Russia - may be able to produce 27% more food. And Brazil, according to the study, can increase its production by 40%. In other words, for the world to have an additional supply of food of 20% up to 2020, it would behoove Brazil to grow two-fold, thanks to its tropical and highly sustainable technology, on land availability and the competency of the modern rural producers.

In fact, the country has been carrying out good work in that direction, notably due to the outstanding technological development observed in the last 25 years. Suffice it to look at the chat below, in which what is observed is the much greater growth in production than that of planted grain areas, preserving more than 60 million hectares of cerrado or woodlands.

BRAZIL: GRAIN PRODUCTION

BRAZILIAN GRAIN PRODUCTION (HARVESTS 1990/91 TO 2012/13)



Source: CONAB. Elaboration: GV Agro

The present collection of work shows what Brazil has done in a variety of production chains in agribusiness. Given the availability of tillable land, it can do much more, servicing that formidable world demand and not only with food, but also with energy and fibers.

Roberto Rodrigues

Coordinator of the Agribusiness Center at FGV, Special Ambassador for the FAO for Cooperatives and Chairman of LIDE Agronegócio

AGRICULTURE IN BRAZIL

FGV Projetos is Fundação Getulio Vargas unit of studies and research responsible for the application of academic knowledge generated and built upon by its schools and institutes. With offices in Rio de Janeiro and São Paulo, the unit develops projects that contribute to more effective economic and management practices of public and private institutions, in Brazil and overseas.

The consulting work of FGV Projetos is distinguished by its greatest asset: the credibility and reliability established over the years through projects recognised for their excellence and competence.

The state-of-the-art FGV Methodology for the Tropical Agricultural Sector was established in 2007, aiming to combine Brazil's unique expertise in developing integrated and sustainable agribusiness projects, together with its own agricultural research & development know-how in the global tropical belt.

In this context, former Minister of Agriculture, Dr. Roberto Rodrigues, established a leading team of agricultural experts that completed several projects within the global tropical belt region - in particular Africa and Latin America. At the core of these initiatives stand the generation of employment and wealth, improvement of field productivity, and wider access to up-to-date agronomic knowledge and training.

THE FGV METHODOLOGY

The general objective of FGV's Methodology is to create a "plan" for the agricultural development of a specific region or project, either green or brownfield. The "plan" for a smallholder integrated commercial farming concept will typically have 3 basic components.

The first one is the development of a "technical plan" for agricultural development. This plan will seek to understand the socio-economic and agronomic environment of the project area, and hence, to identify: the appropriate agricultural land, the most suited crops, the applicable technologies and the best practices, given the unique features of the area. The working steps for the 'technical plan' include:

1. Agricultural zoning: soil and climate mapping to identify areas best suited to a specific crop/ livestock;

2. Identification of the ideal combination of variety and soil/crop management package to achieve high productivity for the target locations (inventory of varieties and proven management methods); and

3. Segmentation of smallholder farmers based on their potential to obtain productivity gains, improving incomes and managing risk. For each segment, FGV will develop specific recommendations for training, products, and systems.

The second component consists of an "investment plan". Based on the preliminary findings of the 'technical plan', the aim is to define agricultural investment opportunities for the private sector that promote profitable agricultural and/or agro-industrial development, as well as funding & financing opportunities. The "investment plan" should clearly articulate how it will achieve the following objectives:

1. Provide a clear understanding of existing barriers to investment and private sector growth in agriculture;

2. Identify ways to create an enabling environment through government policies and interventions to support private sector led agricultural development; and

3. Catalyse private sector investment into the target region or project, by identifying potential investors, demonstrating the potential for investment, and providing investors with actionable investment opportunities.

The third component lies in FGV Projetos' capacity to develop the detail engineering and the implementation plan of its projects, together with its partner firms. This gives the projects an unprecedented added value, minimizes unnecessary delays and offers a flexible project management of the business model.

SOCIAL RESPONSIBILITY

Social responsibility goes hand in hand with sustainable development in that it seeks to reconcile financial efficiency, social equity and environmental protection on the path to continuous improvement.

As the project manager, FGV Projetos will always place a strong emphasis on people and local cultures. The acknowledgment of the projects' impact on the environment, society and economy, demonstrates our full commitment to sustainable development.

Our main priorities include sustainable farming, conscious water usage, energy consumption versus CO2 emissions, traceability of ingredients, community involvement and increased living standards, independence, communicating commitments, among many others. FGV Projetos strive to build relationships based on trust, strong ethical values and transparency.

ENVIRONMENTAL CONCERNS

Environmental issues have become very important to the local community, the government, clients, investors and other stakeholders involved in our projects. Permits for new large-scale agribusiness undertakings, for example, depend on the technical consideration of the environmental aspects in the project plans.

In this sense, FGV Projetos has established solid environmental standards, including the introduction of general but also specific principles, ranging from the prevention of vulnerable habits and environmental pollution to potential liabilities associated to the event of environmental impacts.

EXPERIENCE IN THE TROPICAL BELT REGION

The 2007 agreement between Brazil and the Unites States to promote the development of biomass-based energy in the "Tropical Belt" countries, was FGV Projetos starting point to conduct several on ground feasibility studies for the development of biomass-based energy projects (ethanol, biodiesel, thermal/energy generation, and food production) and food production projects in many countries including: Argentina, Dominican Republic, Honduras, Guatemala, Haiti, El Salvador, Guinea, Liberia, Senegal, Guinea Bissau, Mozambique, Paraguay, Zambia.

FGV Projeto's agricultural production activities involve small and medium-scale farmers, as well as large agro-industrial corporations, and a variety of crops across a diverse range of edaphic, climatic and agronomic conditions.

FGV Projetos has done most of its international projects in Africa, where it was responsible for the technical management of the projects under ProSAVANA, a Triangular Cooperation Programme for the agricultural development of Mozambique's tropical savannah, conducted as part of an international partnership between Mozambique, Brazil and Japan.

The agricultural sector occupies a key position in the economy of many African countries, representing 50% or more of export earnings. And the vast untapped agricultural potential

(both in terms of resources and market opportunities) could turn several African nations into global players in agricultural production. However, the continent remains a net importer of main agricultural products.

The reasons range from limited access to inputs (fertilizers, land and water), slow transfer/adoption of technology and inefficiencies in the land titling processes, to conflicts, natural disasters and lack of infrastructure for production, storage and marketing – all contributing to stagnating agricultural production yields. Africa's food security will depend on the successful development of smallholder integrated commercial farming concepts that aim to maximize the production per hectare (at competitive costs) and spread the benefits widely.

In that context, ProSAVANA aims to transfer Brazilian agribusiness know-how by providing technical support to increase agricultural productivity in the Nacala Corridor, located in the north of Mozambique. The technology and techniques that enabled the agricultural development of similar regions, such as the Brazilian Cerrado in the late 70's and 80's, can now be used to fasten that process in Africa. In fact, the continent is today better placed to achieve that goal, as rapid economic, population and urban growth provide for diverse and large domestic markets. Hence, the use of new technologies offers an attractive environment for increased foreign and domestic investments into sustainable agriculture.

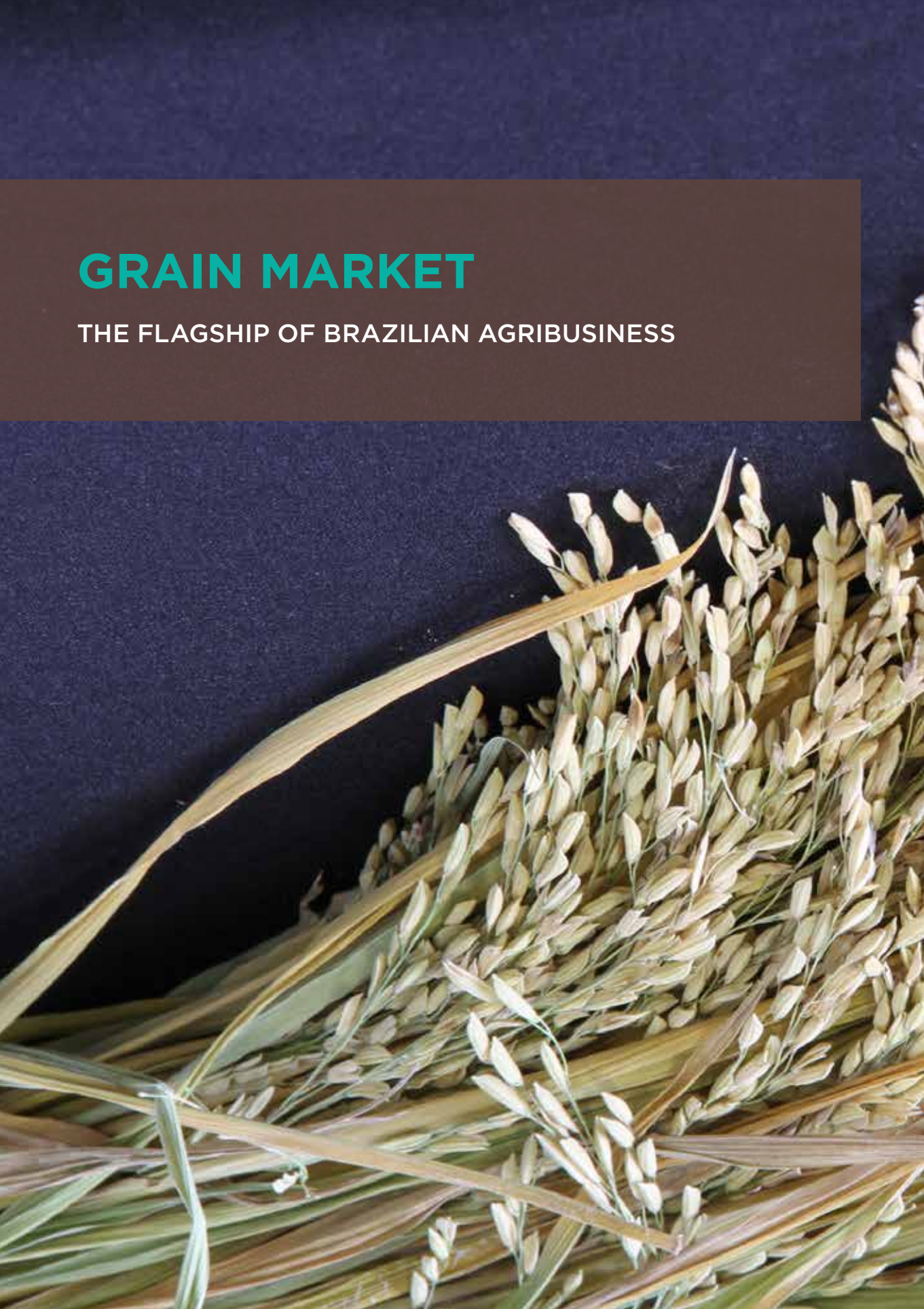
FGV has played a key role by developing the ProSAVANA Master Plan along with an investment fund specially designed to attract investments to the Nacala Corridor. In this way, FGV is helping to further economic development, social inclusion and environmental progress in Mozambique.

With this combination of good management, broad knowledge of soil and climatic dynamics, proven experience in executive and engineering projects, and the right tools to enable interaction with local governments and the international financial community, FGV Projetos is well prepared to support both the private and public sector in bringing significant improvements for the agricultural communities involved.

BRAZILIAN AGRIBUSINESS OVERVIEW

GRAIN MARKET

THE FLAGSHIP OF BRAZILIAN AGRIBUSINESS



Representing almost 30% of the gross value of Brazilian agribusiness in 2015, according to the estimates of the Ministry of Agriculture, Livestock and Supply (MAPA), grain production is Brazilian agribusiness´ flagship. A considerable part of the agricultural frontier expansion observed in Brazil in the last two decades was thrust precisely by grain introduction, with a special highlight for soybean and maize. However, despite the favorable numbers in the last years, grain producers will have to get used to a period with more modest scenarios. Regarding fundamentals, stocks continue to be high, and financially, the North American monetary policy is undergoing a cautious normalization process. Jointly, both of these events force grain prices to operate at lower levels. This new situation poses an additional challenge for grain production, as producers´ margins tend to become narrower. Notwithstanding this, there are winners in this situation, animal protein chains producers that can benefit, as feed is one of the main components in their production costs.

MAIN INTERNATIONAL TRADE FLOWS

In general, grains have well-developed international markets that allow different markets to be strongly connected with the main players. Despite the several similarities, each commodity that is part of this group has a market with a very specific dynamic. Because of this, in the next pages we will analyze the panorama of world production for the four main grains, which are soybean, maize, rice and wheat.

Different from the other grains mentioned, soybeans count with a geographically concentrated production. USDA projections for the 2015/16 harvest suggest that only three producers – the United States, Brazil and Argentina – should concentrate over 80% of the global soybeans production. In a similar way, the purchases of this grain also point to a high degree of concentration; based on the same projections from the USDA, China and the European Union should be buying more than 75% of the soybeans traded in the international market. Consequently, given the characteristics set forth, the main soybeans suppliers in the international market will be, in order, Brazil, the United States and Argentina, which jointly should supply more than 87% of all the soybeans geared to exports in the current harvest.

SHARE OF THE MAIN SOYBEAN EXPORTERS IN THE INTERNATIONAL MARKET IN THE 2015/16 HARVEST*

RANK	COUNTRY	SHARE
1	BRAZIL	42.9%
2	UNITED STATES	36.9%
3	ARGENTINA	7.7%
4	PARAGUAY	3.6%
WORLD (MI TON)		127.18

Source: USDA I * USDA Projections

Despite the lower intensity, maize production also presents a considerable degree of concentration. The United States should produce in the current harvest a little over 35% of all the maize supplied in the planet, followed by China (23%) and by Brazil (8%). Purchases of this grain in the international market are more fragmented than those of soybeans; imports of the ten largest buyers (European Union, Japan, Mexico, South Korea, Egypt, Colombia, Saudi Arabia, Taiwan and Algiers) account for more than 60% of all the maize negotiated in the international market. Additionally, maize supplies to these markets are already more concentrated; United States, Brazil, Ukraine and Argentina should supply almost 85% of the maize for the world market from the current harvest.

SHARE OF THE MAIN MAIZE EXPORTERS IN THE INTERNATIONAL MARKET IN THE 2015/16 HARVEST*

RANK	COUNTRY	SHARE
1	UNITED STATES	38.1%
2	BRAZIL	19.4%
3	UKRAINE	14.2%
4	ARGENTINA	12.6%
5	RUSSIA	3.2%
6	PARAGUAY	1.9%
7	EUROPEAN UNION	1.6%
WORLD (MI TON)		123.43

Source: USDA I * USDA Projections

Rice is a staple food for practically all societies in the world. It is therefore natural that its consumption become disperse and vary according to the size of the population in each country. Despite the consumption dispersion, in geographic terms, rice productions is strongly concentrated in Asia, especially in the southeastern area; among the ten largest producers, only one is not on the Asian continent: Brazil, that is the ninth worldwide producer. Due to population issues, China is the largest producer (for the current harvest, it should produce a little over 30% of world production) and at the same time, the largest importer (almost 12% of all the rice that will be traded in the international market). Naturally, the main suppliers of this grain in the world market are in the Southeast of Asia; Thailand, India and Vietnam together should supply a little over 60% of the rice commercialized in the international Market in the current harvest.

SHARE OF THE MAIN RICE PRODUCERS IN THE WORLD MARKET FOR THE 2015/16 HARVEST*

RANK	COUNTRY	SHARE
1	CHINA	30.5%
2	INDIA	21.7%
3	INDONESIA	7.7%
4	BANGLADESH	7.3%
5	VIETNAM	5.9%
6	THAILAND	3.8%
7	BURMA	2.7%
8	PHILIPPINES	2.6%
9	BRAZIL	1.7%
10	JAPAN	1.7%
WORLD (MI TON)		478.65

Source: USDA I * USDA Projections

Among the grains analyzed, wheat is the one that has the most dispersed production geographically. Among the main suppliers for the international market, there are three Europeans (European Union, Russia and Ukraine), two countries in North America (United States and Canada), two in South America (Argentina and Uruguay), besides Kazakhstan and Turkey in Asia and Australia in Oceania. Thus, as the production and exports, purchases in the international market are quite dispersed; no single country should individually acquire a share greater than 8% of the volume traded in the world in the current harvest.

SHARE OF THE MAIN WHEAT PRODUCERS IN THE WORLD MARKET IN THE 2015/16 HARVEST*

RANK	COUNTRY	SHARE
1	EUROPEAN UNION	20.3%
2	CHINA	17.9%
3	INDIA	12.4%
4	RUSSIA	8.3%
5	UNITED STATES	8.0%
6	CANADA	3.6%
7	AUSTRALIA	3.6%
8	UKRAINE	3.5%
9	PAKISTAN	3.4%
10	TURKEY	2.7%
WORLD (MI TON)		726.55

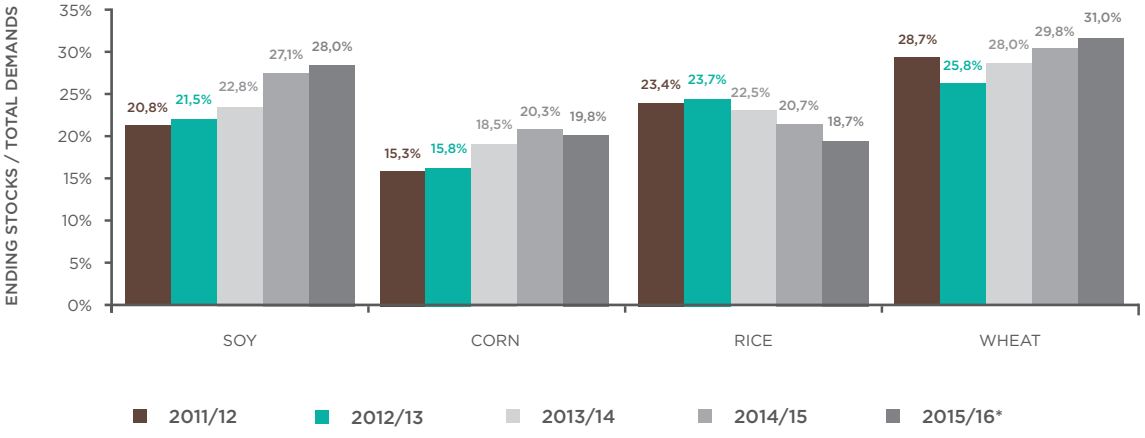
Source: USDA I * USDA Projections

HIGHER LEVELS OF INVENTORIES, BUT NOT FOR ALL GRAINS

As they are important inputs for human nutrition, as well as for the production of feed in animal protein chains, grain prices pose a great deal of concern for their producers as well as, on the other hand, for food safety policies. In this sense, the current situation, with price accommodation in the main international markets poses challenges for some agents and great relief for others.

Dollar prices have presented a falling trajectory for the four grains analyzed. In principle, this behavior should be justified due to a recovery in supply, at a greater intensity that the advance of demand, leading, consequently, to an increase in world inventories. Nevertheless, the inventory recovery is not something that is general, for example, the inventory/demand ratio in the rice market has undergone a contraction since the 2011/12 harvest, albeit prices having recorded strong slumps since that time.

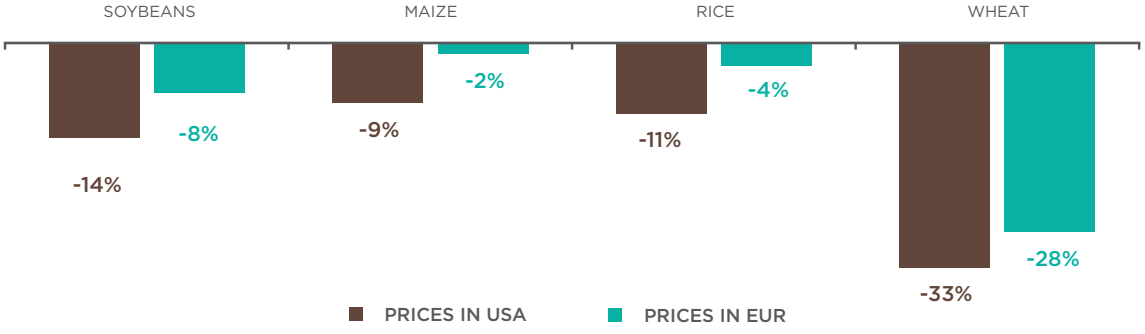
EVOLUTION OF THE FINAL INVENTORIES/DEMAND RATIO FOR THE MAIN GRAINS IN THE LAST 5 HARVESTS



Source: USDA I * USDA Projections

Regarding this point, it is important to have clarity that these slumps are partially due to a recovery of inventories, but there is also the contribution of the dollar appreciation. As all of these commodities are priced in North American currency, a dollar appreciation requires an adjustment in relative prices; to maintain the real value of each of these grains, their prices must drop as the dollar increases its value. This appreciation effect on the quotation of these commodities becomes clearer when pricing them in another convertible currency, for example, the Euro. In this case, it becomes clear that part of the drop observed is a monetary phenomenon.

PRICE VARIATION FOR THE MAIN GRAINS DENOMINATED IN DOLLARS AND EURO THROUGHOUT 2015



Source: World Bank

BRAZIL´S INSERTION IN THE INTERNATIONAL MARKET

Ensuing the expansion of Brazilian agribusiness towards the Brazilian Savana, the country consolidated its share as a great grain supplier in the international market, with a special emphasis on soybeans and maize. While in the 2010/11 harvest Brazil supplied less than 10% of all the maize traded in the world, this share amounted to more than 20% in the 2014/15 harvest, and the USDA projects a share of 19.4% for the current harvest. These figures already rank the country as the second main supplier for maize in the international market. A considerable part of this expansion is attributable to strides made in winter maize, also known as the interim harvest or 2nd harvest. In the case of soybeans, for some time Brazil has been one of the most important players in the international market. With the expansion of the agricultural frontier towards the Brazilian Savana and productivity gains obtained since that period, the country has become the largest exporter of soybeans, with an ever growing share. For the current harvest, the projection is that the country will supply almost 43% of all the soybeans traded in the world.

SHARE AND BRAZILIAN RANKING IN MAIZE AND SOYBEAN EXPORTS IN THE INTERNATIONAL MARKET

CROP	MAIZE		SOYBEANS	
	SHARE	RANK	SHARE	RANK
00/01	8.2%	4	28.7%	2
01/02	2.8%	4	27.4%	2
02/03	6.0%	4	32.0%	2
03/04	5.8%	4	36.4%	2
04/05	0.9%	3	31.1%	2
05/06	5.6%	4	40.6%	1
06/07	11.5%	3	33.0%	2
07/08	7.9%	4	32.4%	2
08/09	8.5%	3	38.8%	2
09/10	12.0%	4	31.3%	2
10/11	9.2%	4	32.7%	2
11/12	20.8%	3	39.3%	2
12/13	26.2%	3	41.7%	1
13/14	16.0%	3	41.6%	1
14/15	20.9%	2	40.1%	1
15/16*	19.4%	2	42.9%	1

Source: USDA I * USDA Projections

Due to the soil and climate characteristics in Brazil, the country is a net importer of rice and wheat. According to the figures from the Foreign Trade Secretary (SECEX), Brazilian imports for rice have decreased since 2010, when 1.35 million tons were purchased, vis-a-vis 0.62 million in 2014. Maize imports however continued to rise up to 2013, when a volume of 7.27 million tons were acquired. However, in 2014, these purchases diminished and dropped to 5.78 million tons, and it is still not clear what will happen in 2015, as up to June 3.02 million tons had already been imported.

BRAZILIAN RICE AND WHEAT IMPORTS SINCE 2010

YEAR	RICE	WHEAT
2010	0.43	1.32
2011	1.35	2.35
2012	1.15	2.40
2013	0.75	7.27
2014	0.62	5.78
2015*	0.23	3.02

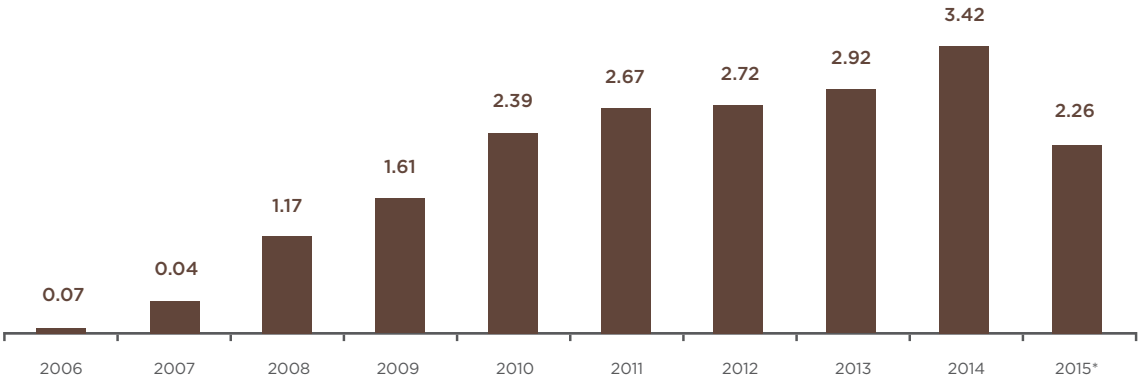
Source: Secex I * Values accrued up to August 2015

SOYBEANS, THE MAIN SUMMER CROP

In several locations in the Brazilian territory, crops are able to work with two production cycles. In popular terms, this phenomenon has been described as obtaining two harvests throughout the same year, the summer harvest (or 1st harvest) and the winter harvest (or 2nd harvest or interim harvest). In regions where it is possible to obtain two harvests, soybeans are consolidated as the main option for the summer harvest, due to the good economic returns this crop has provided. Generally, the earlier varieties of the soybean cycle are chosen, allowing the crop to be ready for the winter plantation in mid-March. Among the most frequent winter harvests: what merits mention are maize and cotton, again due to favorable returns. It has not been rare to find, in the last few years, producers who have worked with two soybean harvests in the same year, despite the losses that this repetition causes in the soil and in pest control. In regions in which in it possible to work with only one harvest, the preference is soybeans, and there is the need for a rotation with other crops, such as maize, rice and cotton.

Currently, with the accommodation of soybean prices in the international Market, soybean producers´ margins have become tighter and tighter. Although the exchange variation has been able to maintain, in reais, a minimum level of prices for that commodity, the rise in production costs (inputs, labor, freight, technology, etc.) has ended up reducing these producers´ margins. If on the one hand a cheaper soybean grain (in dollars) might cause discomfort for some, it may represent better economic conditions for other sectors, such as the animal protein chains and biodiesel producers.

BRAZILIAN BIODIESEL PRODUCTION (IN MI M³)



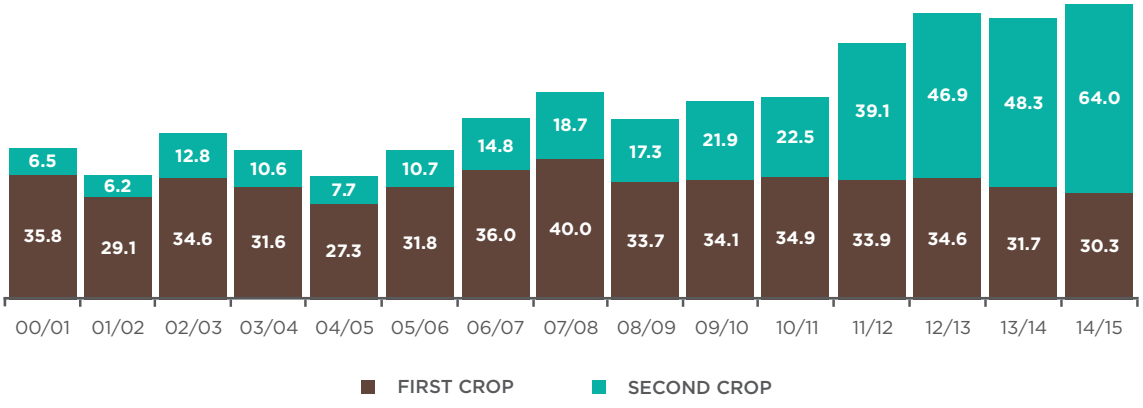
Source: ANP I * Values accrued up to July 2015

Grains with lower prices are also favorable for the animal protein chains, and this is not restricted to Brazilian breeders. With soybeans at a lower price, the Chinese can hike up their imports for this commodity for local crushing, to be able to finally service the pork meat demand – by far the meat that is most produced and consumed in that country. Finally, in case China ends up being successful in its strategy to expand poultry breeding, the demand for feed will increase and, consequently, their soybean purchases. With some effort in trade policies, it is even possible to expand exports of the soybean complex to other Asian countries, such as India, Thailand, Vietnam, South Korea and Japan, that have as their goal to expand the animal protein chains, once again with a highlight for pork meat.

MAIZE: THE IMPORTANCE OF THE 2ND HARVEST

Although maize prices, even in reais, have pointed to a less favorable expansion than soybeans, the area cultivated with maize has increased. While in the Center-West of Brazil, with a special highlight for the state of Mato Grosso, maize area expansion has taken place thanks to the possibility of obtaining that second harvest, with part of the costs amortized by revenues from summer crops, in Paraná this expansion comes about due to the greater demand for grains to apply to pork breeding and that of local poultries. If on the one hand, the price drop can reduce margins of maize destined to the Paranaguá port, on the other, it can increase demand for this grain to service the domestic animal protein chains. Finally, it is important to mention that dairy producers have also benefited from this accommodation in maize prices, as well as from the silage quality, resulting in a lower use of agrochemicals during grain production.

BRAZILIAN MAIZE PRODUCTION SPLIT BETWEEN THE 1ST AND 2ND HARVEST (MI TON)

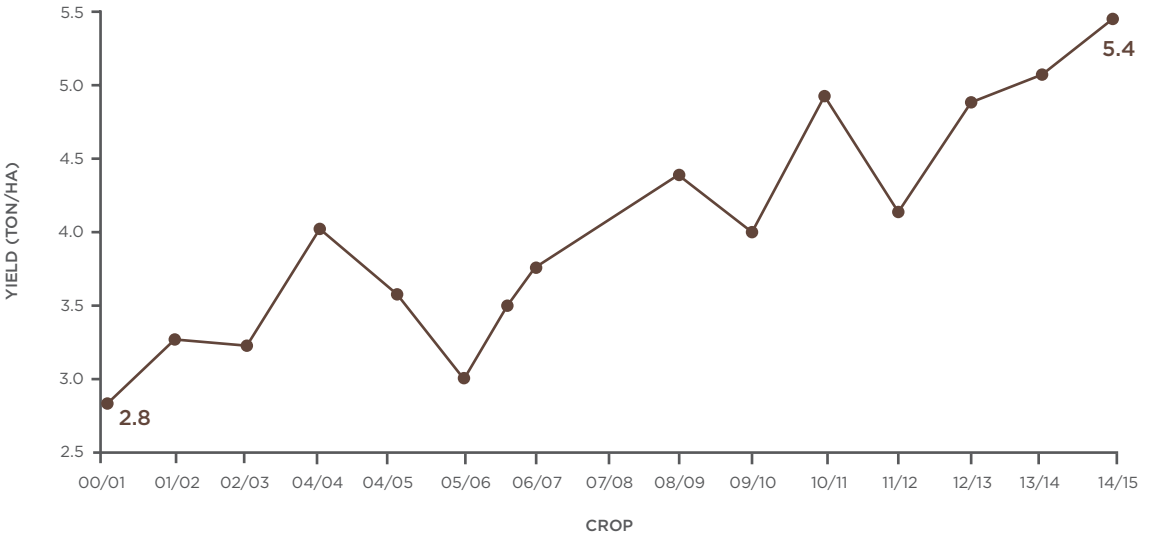


Source: CONAB

RICE: ADVANCES AND HURDLES

Rice cultivation in Brazil has presented considerable productivity gains. Regarding this aspect, what is noteworthy is the growing production of rice in a rotation with soybeans – in other words, in some areas rice is no longer a single crop. Additionally, despite advances in technical terms, producers have witnessed a process of margin compression. As in the international market, the price of rice in Brazil has evolved in a way that is not very favorable for producers. To make things even more uncomfortable, producers´ returns has been under pressure due to the increase in leasing costs. Faced by this scenario, Brazilian rice growing has undergone persistent problems of insolvency, and the temporary solutions repeat themselves in what is practically a cyclic solution: (i) debt postponement; (ii) subsidies to stock inventories; and (iii) subsidies for trade. Unfortunately, none of these solutions seem able to resolve the internal conflicts in this chain for the medium run.

EVOLUTION OF BRAZILIAN RICE PRODUCTIVITY (TON/HA)



Source: CONAB

EXTRA TABLES

THE FIVE LARGEST GRAIN COMPANIES IN THE WORLD

RANK	COMPANY	COUNTRY	REVENUES IN 2012 (USD BI)
1	GLENCORE INTERNATIONAL	SWITZERLAND	236.0
2	CARGILL	UNITED STATES	133.9
3	ARCHER DANIELS MIDLAND CO.	UNITED STATES	89.0
4	BUNGE	UNITED STATES	60.9
5	LOUIS DREYFUS	FRANCE	54.0

Source: Reuters

THE TOP TEN WORLD SOYBEANS PRODUCERS(PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	UNITED STATES	106.6
2	BRAZIL	97.0
3	ARGENTINA	57.0
4	CHINA	11.5
5	INDIA	11.5
6	PARAGUAY	8.8
7	CANADA	6.2
8	UKRAINE	4.7
9	URUGUAY	3.5
10	BOLIVIA	3.1
WORLD		320.0

Source: USDA

THE TEN LARGEST GLOBAL SOYBEAN EXPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	BRAZIL	54.5
2	UNITED STATES	46.9
3	ARGENTINA	9.8
4	PARAGUAY	4.6
5	CANADA	3.8
6	URUGUAY	3.3
7	UKRAINE	3.0
8	BOLIVIA	0.3
9	INDIA	0.3
10	RUSSIA	0.3
WORLD		127.2

Source: USDA

THE TEN LARGEST WORLD SOYBEAN IMPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	CHINA	79.0
2	EUROPEAN UNION	13.5
3	MEXICO	4.1
4	JAPAN	2.9
5	TAIWAN	2.4
6	INDONESIA	2.3
7	THAILAND	2.1
8	TURKEY	2.1
9	EGYPT	2.0
10	RUSSIA	1.9
WORLD		123.3

Source: USDA

THE TEN LARGEST CORN PRODUCERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	UNITED STATES	347.6
2	CHINA	225.0
3	BRAZIL	79.0
4	EUROPEAN UNION	62.3
5	UKRAINE	27.0
6	ARGENTINA	25.0
7	INDIA	23.5
8	MEXICO	23.5
9	RUSSIA	13.5
10	SOUTH AFRICA	13.5
WORLD		985.6

Source: USDA

THE TEN LARGEST CORN EXPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	UNITED STATES	47.0
2	BRAZIL	24.0
3	UKRAINE	17.5
4	ARGENTINA	15.5
5	RUSSIA	4.0
6	PARAGUAY	2.4
7	EUROPEAN UNION	2.0
8	INDIA	2.0
9	SERBIA	1.8
10	SOUTH AFRICA	1.5
WORLD		123.4

Source: USDA

THE TEN LARGEST WORLD CORN IMPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	EUROPEAN UNION	15.0
2	JAPAN	14.8
3	MEXICO	10.3
4	SOUTH KOREA	10.0
5	EGYPT	8.0
6	COLOMBIA	4.5
7	SAUDI ARABIA	4.5
8	TAIWAN	4.3
9	ALGERIA	4.2
10	IRAN	4.0
WORLD		121.7

Source: USDA

THE TEN LARGEST RICE PRODUCERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	CHINA	146.0
2	INDIA	104.0
3	INDONESIA	36.7
4	BANGLADESH	35.0
5	VIETNAM	28.2
6	THAILAND	18.0
7	BURMA	12.8
8	PHILIPPINES	12.4
9	BRAZIL	8.0
10	JAPAN	7.9
WORLD		478.7

Source: USDA

THE TEN LARGEST WHEAT PRODUCERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	EUROPEAN UNION	147.8
2	CHINA	130.0
3	INDIA	90.0
4	RUSSIA	60.0
5	UNITED STATES	58.1
6	CANADA	26.5
7	AUSTRALIA	26.0
8	UKRAINE	25.5
9	PAKISTAN	25.0
10	TURKEY	19.5
WORLD		765.5

Source: USDA

THE TEN LARGEST RICE EXPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	THAILAND	10.2
2	INDIA	8.5
3	VIETNAM	7.0
4	PAKISTAN	4.0
5	USA	3.4
6	BURMA	2.2
7	CAMBODIA	1.0
8	URUGUAY	1.0
9	BRAZIL	0.9
10	GUYANA	0.5
WORLD		41.9

Source: USDA

THE TEN LARGEST RICE IMPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	CHINA	4.7
2	NIGERIA	3.0
3	IRAN	1.6
4	EUROPEAN UNION	1.6
5	SAUDI ARABIA	1.6
6	IRAQ	1.4
7	PHILIPPINES	1.3
8	SOUTH AFRICA	1.2
9	INDONESIA	1.1
10	SENEGAL	1.1
WORLD		39.6

Source: USDA

THE TEN LARGEST WHEAT EXPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	EUROPEAN UNION	31.0
2	UNITED STATES	25.2
3	RUSSIA	23.0
4	AUSTRALIA	18.5
5	CANADA	18.0
6	UKRAINE	13.0
7	KAZAKHSTAN	6.0
8	ARGENTINA	5.5
9	TURKEY	4.0
10	URUGUAY	1.3
WORLD		156.2

Source: USDA

THE TEN LARGEST WORLD WHEAT IMPORTERS (PROJECTION FOR THE 2015/16 SEASON - MI TON)

RANK	PRODUCER	2015/16
1	EGYPT	11.5
2	INDONESIA	8.1
3	ALGERIA	7.7
4	BRAZIL	6.5
5	EUROPEAN UNION	6.5
6	JAPAN	5.8
7	PHILIPPINES	4.5
8	MEXICO	4.4
9	NIGERIA	4.4
10	SOUTH KOREA	4.0
WORLD		155.1

Source: USDA

THE TWENTY LARGEST GRAIN BRAZILIAN EXPORTERS

1. Cargill Agrícola S.A.
2. Bunge Alimentos S.A.
3. ADM do Brasil LTDA
4. Amaggi Importação e Exportação LTDA
5. Louis Dreyfus Commodities Brasil S.A.
6. Nidera Sementes LTDA
7. BTG Pactual Commodites S.A.
8. Noble Brasil S.A.
9. Coamo Agroindustrial Cooperativa
10. CHS Agronegocio - Industria e Comercio LTDA
11. Cutrale Trading Brasil LTDA
12. Seara Industrialização e comercialização de Produtos Agro-pecuários LTDA.
13. CGG Trading S.A.
14. Multigrain S.A.
15. Agrex do Brasil S.A.
16. Glencore Importadora e Exportadora S.A.
17. Marubeni Brasil S.A.
18. Fiagril LTDA
19. Caramuru Trading Importação e Exportação LTDA
20. Gavilon do Brasil Comércio de Produtos Agrícolas LTDA

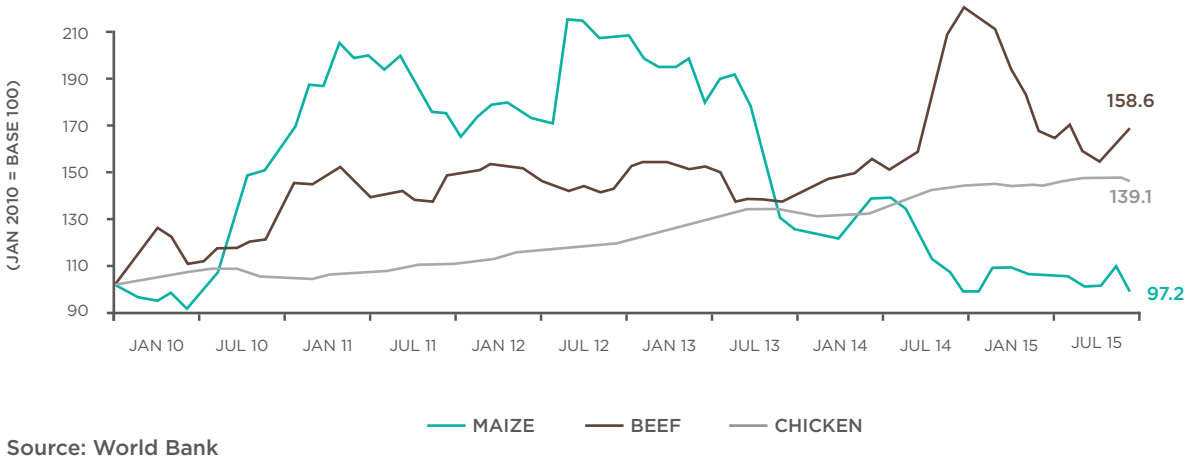
Source: Associação Nacional dos Exportadores de Cereais - ANEC

MEAT MARKET

IN THE OPPOSITE DIRECTION OF COMMODITIES

While grain prices has been plummeting in the last few months, meat prices have kept themselves at a high level. Underlying the dynamic is a combination of factors on the part of demand as well as on the maintenance of the urbanization process and expansion of purchasing power in emerging economies, and on the supply side, with a special emphasis on the bottlenecks created by the increase in feed prices. Although consumption has grown in the last years, poultry is the one with the most advances, and can soon occupy the position of the most consumed animal protein in the planet, a leading position at present occupied by pork. Finally, while the high grain prices posed a problem for animal protein chains in recent years, the current drop may represent a boost in producers´margins.

COMPARISON OF MAIZE PRICE EVOLUTION AND BEEF AND CHICKEN (BASE 100 = JANUARY 2010)



Source: World Bank

PRICE MAINTENANCE: SPECIFIC REASONS FOR EACH CHAIN

While demand factors that maintain meat prices high are common to almost the entire animal protein chain, at supply side, these factors tend to be more specific. Albeit producers feeling the impact of grain price rises, raising feed costs, the responses given by each chain were different. Additionally, as these meats are in a certain measure substitutes among themselves, movements in the market of one alters the balance in the markets of all others. As regards to beef:

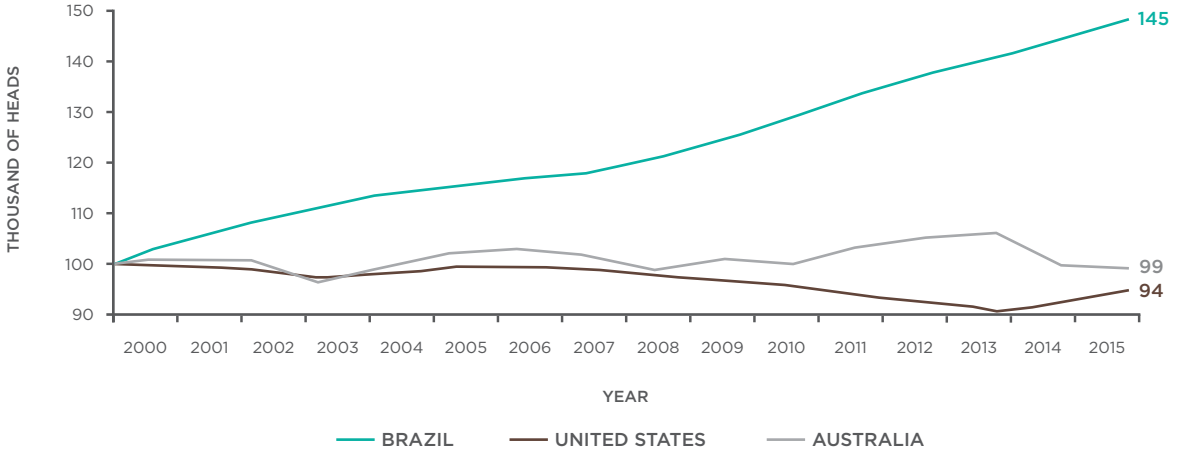
- In the United States, the owner of the third largest commercial herd in the world, there was a reduction in the number of animals. As American breeding is done through confinement, livestock production is sensitive to feed prices. A hike in these prices forced cattle breeders to reduce the size of their herds to maintain profitability in their operations;

- Something similar took place with Australia, the owner of the sixth largest commercial herd in the planet. Greater pressure on local producers´ margins led to the termination of a greater part of their herds;

- In both cases, as more time is needed than for the other animal protein chains to recover the matrix stocks, the restriction on the part of supply should maintain prices for some time;

- As an important part of the Brazilian cattle breeding production takes place on grasslands instead of confinement, it is less sensitive to grain price variations. With this, Brazil was able to expand its herds and consolidate its position further as the owner of the largest commercial herd worldwide. Despite advantages in Brazilian production, higher beef consumption has pressured local prices, due to the difficulties that calf producers breeding phase have found in augmenting their productivity to face the expansion in demand for reproduction and finishing or fattening.

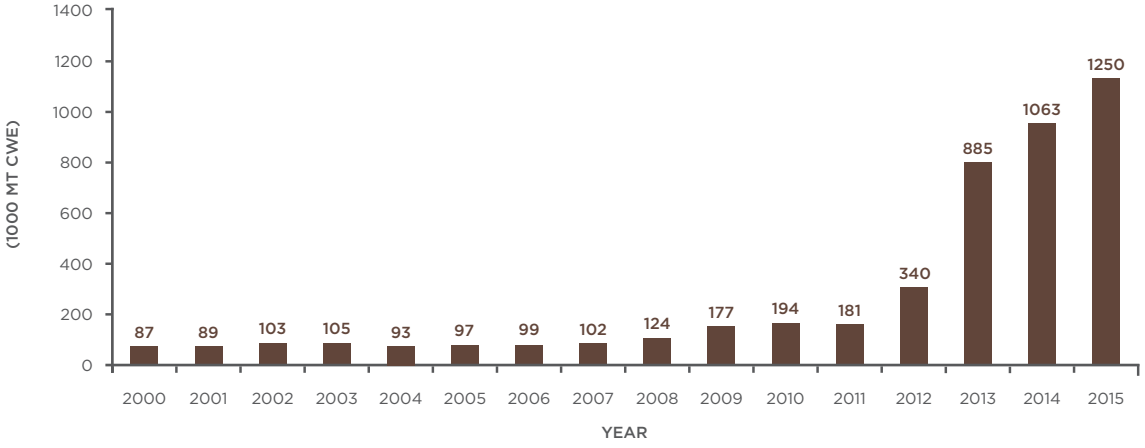
BEEF CATTLE EVOLUTION IN BRAZIL UNITED STATES AND AUSTRALIA (BASE 100 = 2000)



Source: USDA

In pork markets, the increase in grain prices also affected breeders and the mismatch between supply and demand became ever more clear when observing the evolution of the Chinese market. By far, China is simultaneously the largest pork consumer and the owner of the largest pork herd in the planet. While the entire European Union counts with approximately 147 million heads, the Chinese have herds with over 420 million animals. Despite efforts of the Chinese government to stimulate the production of local pork meat, its producers have not been able to keep up with demand and Chinese imports of this type of meat increased strongly in 2013.

CHINESE BEEF IMPORTS (MI CARCASS-WEIGHT EQUIVALENT)



Source: USDA

These events have led to an increase in beef and pork prices. As poultry breeding produces a good that can replace those meats, there has been a hike in demand for chicken, also incrementing its price. Although poultry production has also faced complicated hurdles, such as the case of avian flu in the Southeast of Asia, leading to the sacrifice of significant parcels of local herds, as this is the most elastic production compared to other meats, this sector has managed to make an adjustment more expeditiously, occupying the excess demand in the meat markets. Thus, it is possible that chicken will soon occupy the front line as the main animal protein in the planet.

Steep beef prices in Brazil have distinct impacts on the production destined to the domestic market and that geared to exports:

- In the domestic market, impacts can be limited, as there could be a migration from consumers to other animal protein sources, notably chicken. That situation can become even more complicated due to the current combination between inflation and the increase in the unemployment rate, reducing the purchasing power of domestic consumers. Faced with this restriction, there will be less space for agents to pass on any cost shock (freight, imported inputs, etc.) to the final price at the end of the chain;

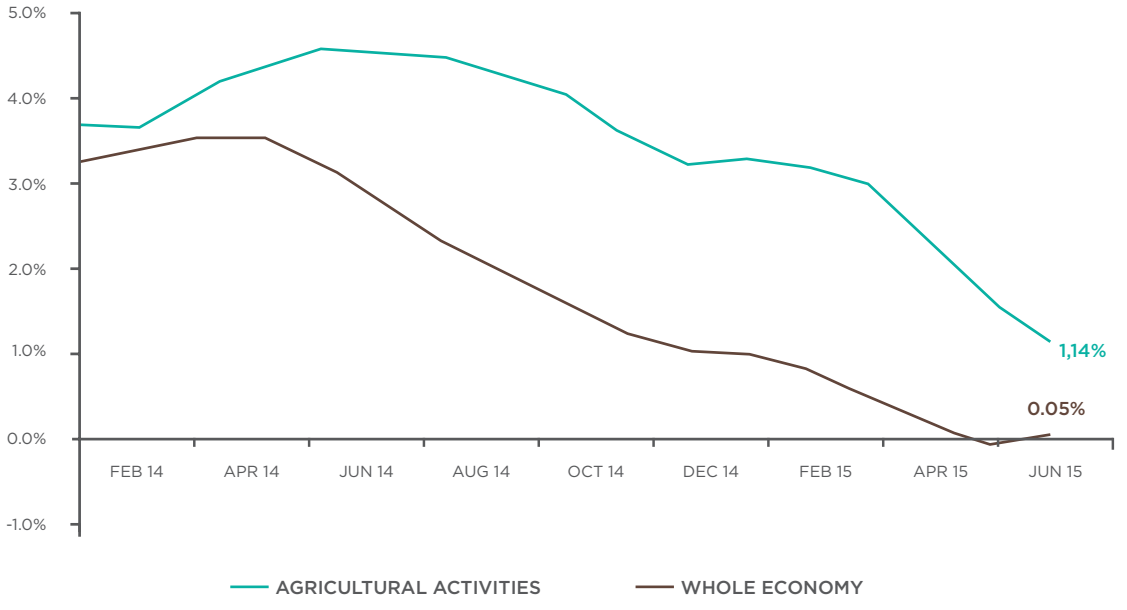
- In the foreign market, the price increases could make Brazilian meat less competitive, reducing its shipments. If, on the one hand, the exchange depreciation could recover part of the competitiveness of Brazilian meat, the main market accessed by domestic producers are located in countries that are less stable (Russia, Middle East and Venezuela); that is, armed conflict, political and economic crisis can also affect national shipments.

BOTTLENECKS IN BEEF CATTLE BREEDING ARE STRUCTURAL

As in the international market, prices of beef in Brazil are also steep. Partially, as in the foreign market, an increase in consumers´ per capita income and the high costs of feed have contributed to maintaining prices. However, the Brazilian case is strengthened by two specific factors:

- Increase in labor costs: the agribusiness expansion has warmed up the service sector in the main producing regions. As this sector generally is labor intensive, there was a greater demand for labor, pressuring salaries upwards. With this, the cost of payroll has become steeper in cattle breeding activities; and

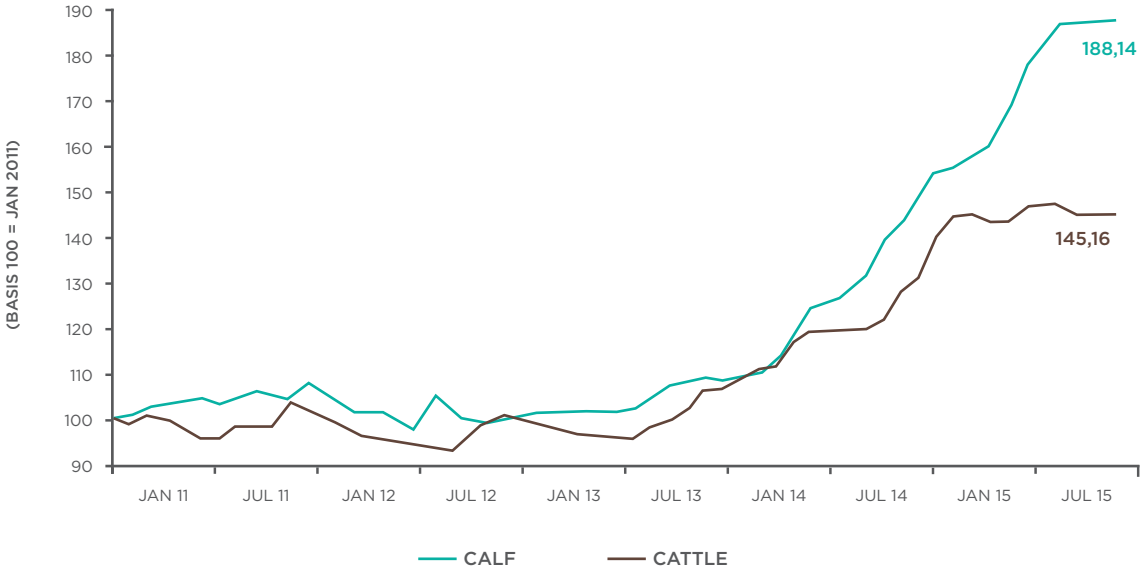
INCOME OF AVERAGE INCOME NORMALLY RECEIVED IN AGRICULTURAL ACTIVITIES AND IN BRAZILIAN ECONOMY (MOVING AVERAGE OF 12 MONTHS)



Source: IBGE

- A bottleneck in calf production, due to greater meat consumption, has incremented the demand for calves for reproduction and fattening. Nevertheless, productivity in the reproduction phase has not been able to keep up with the increased efficiency of the beef production process (reproduction and fattening or finishing). With this, there has been a bottleneck in calf breeding and the price has increased almost permanently, increasing costs and pressuring other links in this chain.

CALF PRICE VS. PRICE OF CATTLE ARROBA (NATIONAL AVERAGE, BASE 100 = JANUARY 2011)



Source: Agrolink

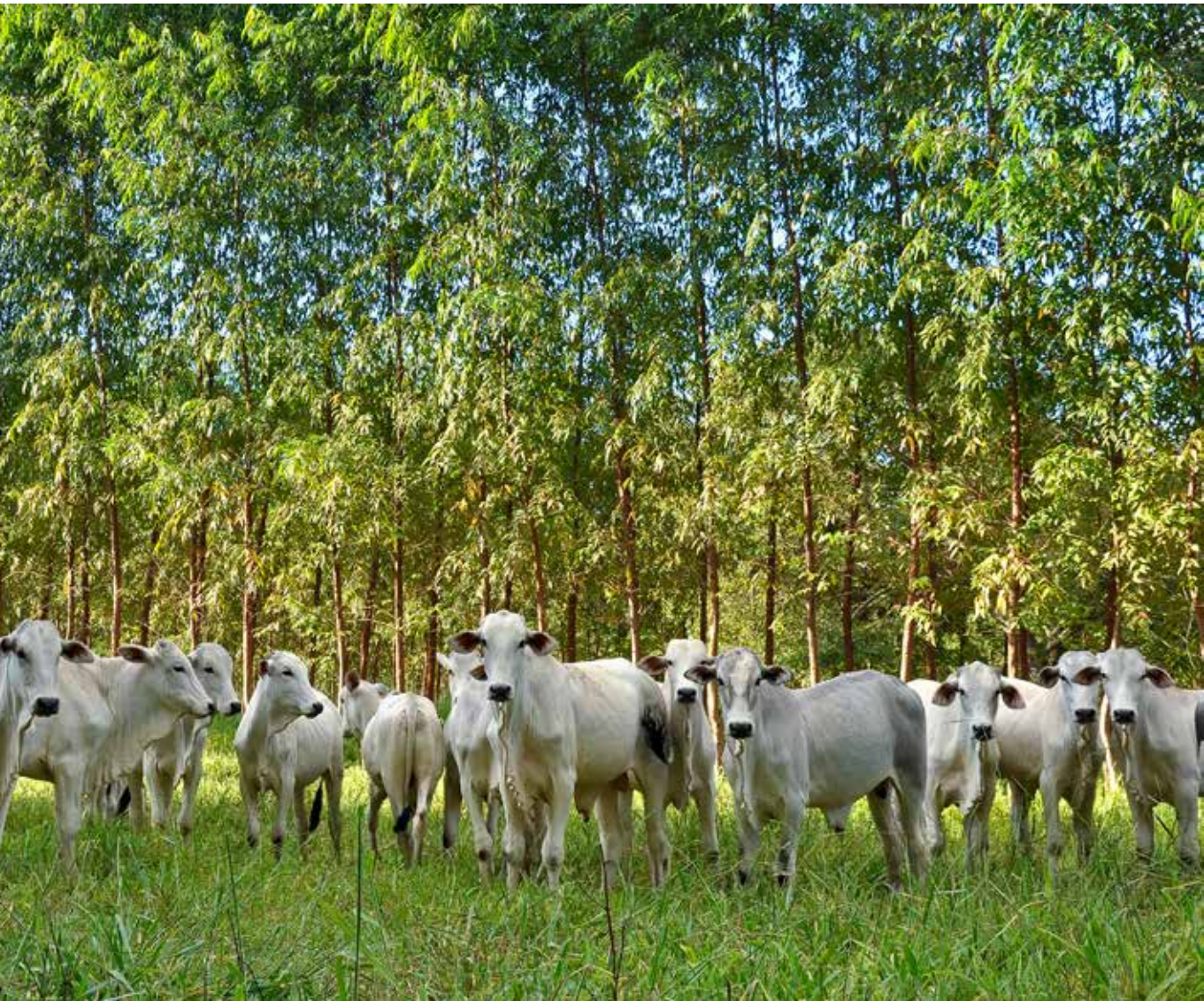
When it comes to the calf breeding bottleneck, it is worthwhile delving deeper into this point, as overcoming this obstacle does not seem a simple task. Breeders, especially the less capitalized ones, enter a cycle with a difficult way out: as there is low productivity in the breeding link, joined with an increase in production costs, the number of arroba produced per hectare has been insufficient to expand the breeders´ margins. As margins have not been increasing, it becomes more difficult to make the necessary investments to expand their productivity. This dynamic is less accentuated among the most sophisticated breeders who have been able to retain more females, an increase the acquisition of bulls and semen.

The strong expansion in the other phases (reproduction and fattening or finishing) of the beef chain can be explained through a series of factors. Among those that merit emphasis:

- Increase in the implementation of cultivated pastures;
- Intensification in the use of pastures through their division or split into smaller land;
- Enhancements in grazing management;
- Improvement in control of weeds, insects and pests;
- Improvement in the correction and fertilization of the soil and use of irrigation;

- Improvement and expansion of crop-breeding-forests integration systems;
- Improvement in winter grasslands, with supplementation, semi-confinement and confinement.

Although the adoption of these technologies is highly favorable for breeders, they are not readily available for all; the volume of fixed capital needed to carry out all of these investments has become greater. That is, in the last years, Brazilian cattle breeding production has become ever more costly and with more restrictive access. It is not rare to find less capitalized cattle breeders where the only economically feasible alternative is the sale of their assets, as they lack the minimum necessary scale to be able to obtain the necessary resources to adopt more efficient technological packages.



STRONG PRICE INCREASE: A WIN-WIN SITUATION FOR ALL?

As has been observed, beef prices have operated at higher levels for some time already in Brazil. This price does not impact the different links of the chain similarly:

- For links before the farm gates (input producers), the higher the value of the arroba, the greater the demand of other links for more sophisticated inputs, where margins are higher as these are less commoditized products. This means to say, the higher the beef price, the higher the profitability of the links before the farm gates;

- Higher prices for the arroba tend to increase demand for calves, whose price, in its turn tends to increase. For the more efficient breeders that are able to face this demand, this implies greater profitability;

- The breeders that have concentrated in the reproduction phase and fattening phase are those whose margins are under more pressure. On the one hand, calf prices have risen in an intensity that is greater than livestock prices. Therefore, only breeders that are able to expand their efficiency and have scale for this are able to maintain favorable economic returns.

SANITARY ISSUES HAVE FAVORED BRAZILIAN POULTRY PRODUCTION

Pork is the most consumed meat around the world; however, this position can be overcome by chicken, due to a diversity of factors. In terms of demand, chicken has a more competitive price and a perception as being healthier in the consumer´s mind, this chain has also been benefited with the phytosanitary problems present in pork herds in several places:

- The United States had to reduce its cattle due to the impacts of the Porcine Epidemic Diarrhea Virus (PEDV), leading to embargos in important consumer markets;

- Several countries in Southeast Asia, with a special highlight for China, also had to reduce six of their pork herd due to the Porcine Reproductive and Respiratory Syndrome Virus (PRRSV), also known as the Blue-ear pig disease;

- Brazilian shipments to Ukraine, one of the main pork meat destinations for Brazil were interrupted after the detection of the Listeria monocytogenes bacteria.

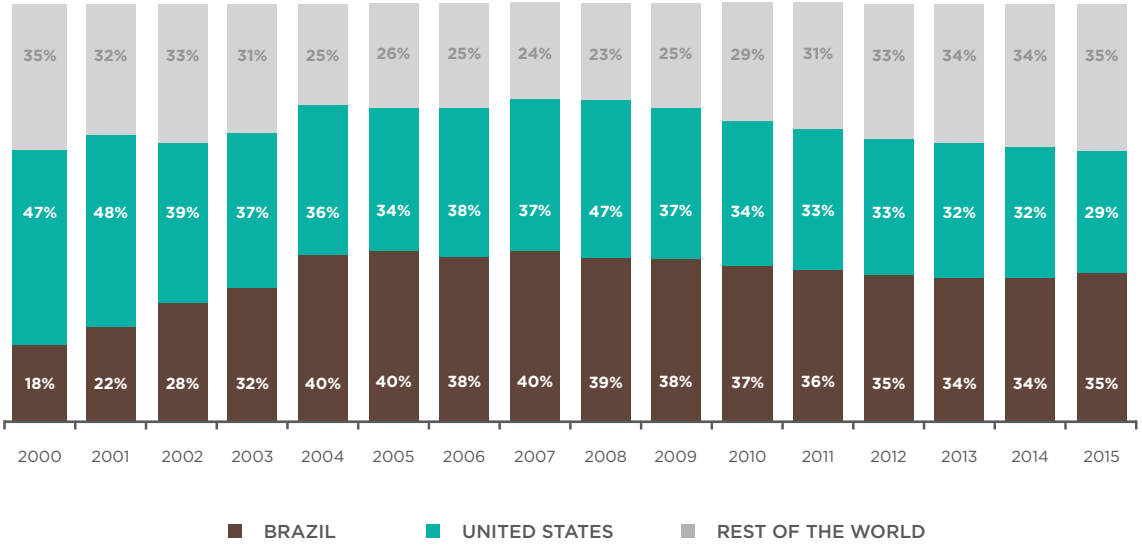
It is important to clarify at this point that sanitary problems are not exclusive to the pork raising chins. There has also been a considerable reduction in the poultry breeding in the Southeast of Asia due to avian flu cases, with relative frequency, always appearing in the headlines.

When it comes to supply, in a context with steep grain prices, aviculture has a competitive edge in terms of animal protein production. Chicken is more efficient than beef or pork. While to produce 1 kilo of prime chicken it is necessary to have 2.6 kg of feed, the two latter consume, respectively, 3.8 kg and 4.2 kg of feed. Besides this efficiency gain, aviculture is more flexible due to its shorter biological cycles. While the fattening cycle in bovine production is, on the average two years, in pork, on the average it is 5 to 6 months, in aviculture is has become less than 40 days. Therefore, the sector has greater capacity to adjust its supply expeditiously in new demand scenarios.

For some time already, Brazil has been the main supplier of chicken for the world market and restrictions in the other animal protein markets favor local producers. Underlying these favorable responses in the sector, what deserves merit are the efficiency gains that grant greater agility to Brazilian poultry breeding. For example, the combination of genetic breeding, an efficient management in farms and adequate nutrition have made it possible to slaughter chicken with less than 40 days of life – until a short time ago, it took at least 60 days.

Besides these structural advantages, with a stronger dollar, Brazilian exports benefit through two different channels. While simultaneously Brazilian poultry meat becomes less costly in the international market, the North American products, that are the second largest exporters of this type of meat, become ever more competitive, at least through price – together Brazil and the United States account for something 65% and 70% of all the chicken marketed in the international market.

SHARE OF BRAZIL AND UNITED STATES POULTRY EXPORTS IN THE INTERNATIONAL MARKET



Source: USDA

EXTRA TABLES

THE TEN LARGEST MEAT INDUSTRY COMPANIES IN THE WORLD

RANK	COMPANY	COUNTRY	REVENUES IN 2012 (USD BI)
1	JBS	BRAZIL	38.7
2	TYSON FOOD	UNITED STATES	33.3
3	CARGILL	UNITED STATES	32.5
4	BRF	BRAZIL	14.9
5	VION	FRANCE	13.2
6	SMITHFIELD FOODS	UNITED STATES	13.1
7	MARFRIG	BRAZIL	12.8
8	NIPPON MEAT PACKERS	JAPAN	12.8
9	DANISH CROWN AMBA	DENMARK	10.3
10	HORMEL FOODS	UNITED STATES	8.2

Source: Meat Atlas (2014)

THE TEN LARGEST CATTLE HERDS IN THE WORLD (PROJECTION FOR 2015 - MI HEADS)

RANK	COUNTRY	2015
1	BRAZIL	218.6
2	CHINA	100.3
3	UNITED STATES	91.9
4	EUROPEAN UNION	88.6
5	ARGENTINA	52.8
6	AUSTRALIA	27.4
7	MEXICO	18.6
8	URUGUAY	16.5
9	CANADA	12.2
10	JAPAN	11.8
WORLD		670.7

Source: USDA

THE TEN LARGEST BEEF EXPORTERS (PROJECTION FOR 2015 - MI TON

RANK	COUNTRY	2015
1	BRAZIL	2.01
2	AUSTRALIA	1.59
3	UNITED STATES	1.10
4	NEW ZEALAND	0.56
5	PARAGUAY	0.44
6	CANADA	0.38
7	URUGUAY	0.38
8	EUROPEAN UNION	0.31
9	BELARUS	0.23
10	MEXICO	0.21
WORLD		7.80

Source: USDA

THE TEN LARGEST BEEF WORLD IMPORTERS (PROJECTION FOR 2015 - MI TON CWE)

RANK	COUNTRY	2015
1	UNITED STATES	1.32
2	CHINA	1.25
3	RUSSIA	0.75
4	JAPAN	0.72
5	SOUTH KOREA	0.40
6	EUROPEAN UNION	0.37
7	CANADA	0.28
8	EGYPT	0.27
9	CHILE	0.25
10	MALAYSIA	0.22
WORLD		9.05

Source: USDA

THE TEN LARGEST PORK HERDS (PROJECTION FOR 2015 - MI TON)

RANK	COUNTRY	2015
1	CHINA	424.0
2	EUROPEAN UNION	147.0
3	UNITED STATES	68.9
4	BRAZIL	40.3
5	RUSSIA	19.4
6	CANADA	13.4
7	SOUTH KOREA	10.5
8	MEXICO	9.6
9	JAPAN	9.5
10	UKRAINE	7.6
WORLD		754.9

Source: USDA

THE TEN LARGEST PORK EXPORTERS (PROJECTION FOR 2015 - MI TON)

RANK	COUNTRY	2015
1	EUROPEAN UNION	2.25
2	UNITED STATES	2.16
3	CANADA	1.23
4	BRAZIL	0.53
5	CHINA	0.20
6	CHILE	0.16
7	MEXICO	0.12
8	VIETNAM	0.04
9	AUSTRALIA	0.04
10	BELARUS	0.03
WORLD		6.82

Source: USDA

TOP TEN WORLD PORK IMPORTERS (PROJECTION FOR 2015 - MI TON)

RANK	COUNTRY	2015
1	JAPAN	1.26
2	MEXICO	0.84
3	CHINA	0.80
4	UNITED STATES	0.56
5	SOUTH KOREA	0.51
6	HONG KONG	0.36
7	PHILIPPINES	0.21
8	CANADA	0.20
9	RUSSIA	0.20
10	AUSTRALIA	0.19
WORLD		5.93

Source: USDA

TOP TEN WORLD POULTRY PRODUCERS (PROJECTION FOR 2015 - MI TON)

RANK	COUNTRY	2015
1	UNITED STATES	18.0
2	CHINA	13.1
3	BRAZIL	13.0
4	EUROPEAN UNION	10.2
5	INDIA	3.9
6	RUSSIA	3.4
7	MEXICO	3.0
8	ARGENTINA	2.1
9	TURKEY	2.0
10	THAILAND	1.6
WORLD		86.7

Source: USDA

THE TEN LARGEST POULTRY EXPORTERS (PROJECTION FOR 2015 - MI TON)

RANK	COUNTRY	2015
1	BRAZIL	3.67
2	UNITED STATES	3.03
3	EUROPEAN UNION	1.15
4	THAILAND	0.57
5	CHINA	0.43
6	TURKEY	0.37
7	ARGENTINA	0.28
8	UKRAINE	0.17
9	CANADA	0.15
10	BELARUS	0.13
WORLD		10.36

Source: USDA

THE TEN LARGEST POULTRY IMPORTERS (PROJECTION FOR 2015 - MI TON)

RANK	COUNTRY	2015
1	JAPAN	0.90
2	SAUDI ARABIA	0.79
3	MEXICO	0.76
4	EUROPEAN UNION	0.71
5	IRAQ	0.71
6	SOUTH AFRICA	0.39
7	ANGOLA	0.34
8	HONG KONG	0.32
9	RUSSIA	0.32
10	VENEZUELA	0.22
WORLD		8.09

Source: USDA

THE TEN LARGEST BRAZILIAN EXPORTERS OF BEEF MEAT

1. JBS S/A
2. Minerva
3. Marfrig
4. Mataboi
5. Meat Snack
6. Sertrading
7. BFR - Brasil Foods
8. Irmãos Gonçalves - Frigon
9. Rodopa
10. Frisa

EXPORTS

TOTAL BRAZIL : 7 (Bl usd)

TOTAL TOP 10 : 5,82 (Bl usd)

SHARE TOP 10 : 83,09% (Bl usd)

IMPORTS

TOTAL BRAZIL : 1,52 (Bl usd)

TOTAL TOP 10 : 1,23 (Bl usd)

SHARE TOP 10 : 80,92% (Bl usd)

Source: ABIEC (Associação Brasileira das Industrias Exportadoras de Carnes)

THE FORTY LARGEST BRAZILIAN EXPORTERS OF POULTRY

1. BFR
2. JBS
3. Aurora
4. C. Vale
5. Copacol
6. Lar
7. Agropen
8. Gonçalves & Tortola
9. Kaefer
10. Céu Azul
11. Coopavel
12. Irmãos Dallas Costa
13. Jaguafrangos
14. Copagrill
15. Zanchetta
16. Bello
17. Coasul
18. Cooperativa Languiru
19. São Salvador Alimentos
20. Granjeiro
21. Nogueira Riveli
22. Agrosul
23. Vossko
24. Rio Branco
25. Frangos Pioneiro
26. Agrodanieli
27. Kit Trading
28. Ad´oro
29. Minuano
30. Avenorte
31. Sertrading
32. Mais Frango
33. Cocari
34. Nutriza
35. Frios Guajara
36. Oderich
37. Braslo
38. Frigorífico Votuporanga
39. Anhambi Alimentos
40. Somave

Source: Meat Atlas (2014)

THE FIFTY LARGEST BRAZILIAN EXPORTERS OF PORK MEAT

1. BFR
2. Seara Alimentos
3. Alibem
4. Aurora
5. Pamplona
6. JBS
7. Frimesa
8. Cotrijui
9. Consuel
10. Sposito & Menon
11. Fernandes
12. São Miguel
13. Conservas Oderich
14. Frigoestrela
15. Lopesco
16. Jandelle
17. Rio Branco
18. Irmãos Dalla Costa
19. Marp
20. Natural Pork
21. Rainha da Paz
22. Coopavel
23. Cooperativa Languiru
24. Cooperativa Agraria Xanxere
25. Kaefer
26. Medirional Meat
27. SRZ
28. Progress Brasil
29. Nutribras
30. E.S.B.
31. Catarinense
32. Industrial
33. Coimbra
34. Talisma
35. Win Alliance
36. Cajuru
37. Agromass Brasil
38. Tangara
39. MGS
40. Agra
41. Odebrecht
42. Bagaense
43. M.S.
44. Ask Foods
45. Lamajo
46. Nova Araca
47. Valupi
48. South Service
49. America
50. Guajara

Source: Meat Atlas (2014)

INCONTESTABLE LEADER

BRAZIL IS THE LARGEST PRODUCER AND EXPORTER OF ORANGE JUICE WORLDWIDE

Orange juice is a beverage based on the fruit that is most taken in the world, with a share of approximately 35% among juices. And, it is from the oranges cultivated in Brazil that the most consumed juice in the planet is made of. It can be said quite calmly that out of each 100 glasses of orange juice consumed in the world, 75 were produced in Brazil. Or yet, out of every five glasses consumed in the world, three were produced in Brazil.

By producing more than half of the orange juice manufactured in the world, Brazil is a global leader in production and exports, followed by the United States, specifically by the State of Florida.

Data from the Ministry of Agriculture, Livestock and Supply (Mapa) reveal that, per year, Brazil harvests between 18 and 19 million tons of oranges – about 425 million boxes with 40.8 kilos each. Approximately 80% of the Brazilian orange production is transformed into industrialized juice.

According to Cepea/Esalq/USP, the highlight in this agribusiness chain is the sophisticated juice processing sector. The agribusinesses that are installed in Brazil have a large scale, besides being highly competitive in the international market. According to the institution, the main factors contributing to this steep competitiveness are:

- An abundant supply and top quality for juice production (orange);
- The harvest extends throughout the year;
- Balanced production costs
- Excellent climate;
- Proximity to the productive sector and outflow channels (ports);
- As they are large scale, agribusinesses in the sector have their own ships for juice distribution, private ports and strong coordination channels;
- Orange juice exports do not pose any problems with phytosanitary barriers.
- This modern agribusiness complex orange juice manufacturer produces several types of beverages, with an emphasis on four:
- Whole [juice without the addition of sugars and in its natural concentration];

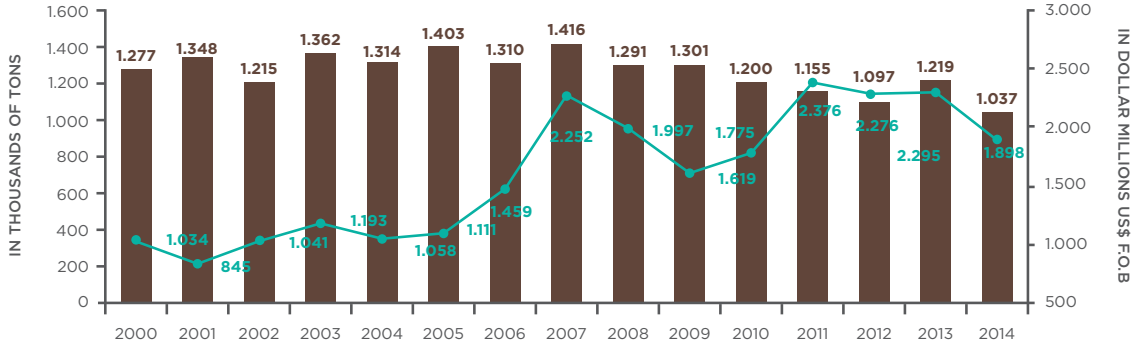
- Concentrated [partially dehydrated juice];
- Reconstituted [juice made of the concentrated juice, with the addition of water];
- Nectar [beverage with at least 30% of juice in its composition].

GIGANTIC FIGURES

During the 2013/14 season, Brazil was responsible for 34% of the world´s orange production, 57% of world exports of fruit juice and for an incredible 79% of world juice trade according to data from CitrusBR (National Association of Citric Juice Exporters). The relevance of the Brazilian citrus sector can also be understood by the amount of jobs that it generates, around 230 thousand between direct and indirect ones, as well as for the volume of taxes paid annually to the IRS, in an order of about US$ 200 million.

In 2014, Brazil exported 1.037 million tons of orange juice, totaling a profit of US$ 1.89 billion. What is expected is that this year´s results will be 5% higher to those recorded last year.

BRAZILIAN ORANGE JUICE EXPORTS IN FCOJ EQUIVALENT

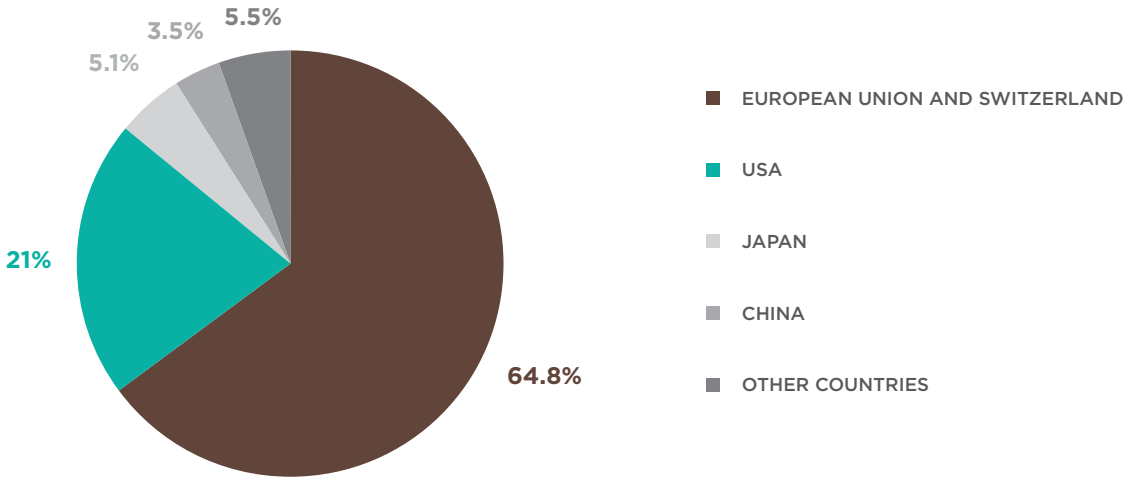


Source: USDA

Brazil has exported orange juice regularly to around 20 countries, with a highlight to the European Union, that absorbs 64.8% of exports, followed by the United States with 21%; Japan with 5.1%; and China 3.5%.

BRAZILIAN ORANGE JUICE EXPORTS

TOTAL: 1,037 THOUSAND TONS OF FCOJ EQUIVALENT



Source: SECEX 2014

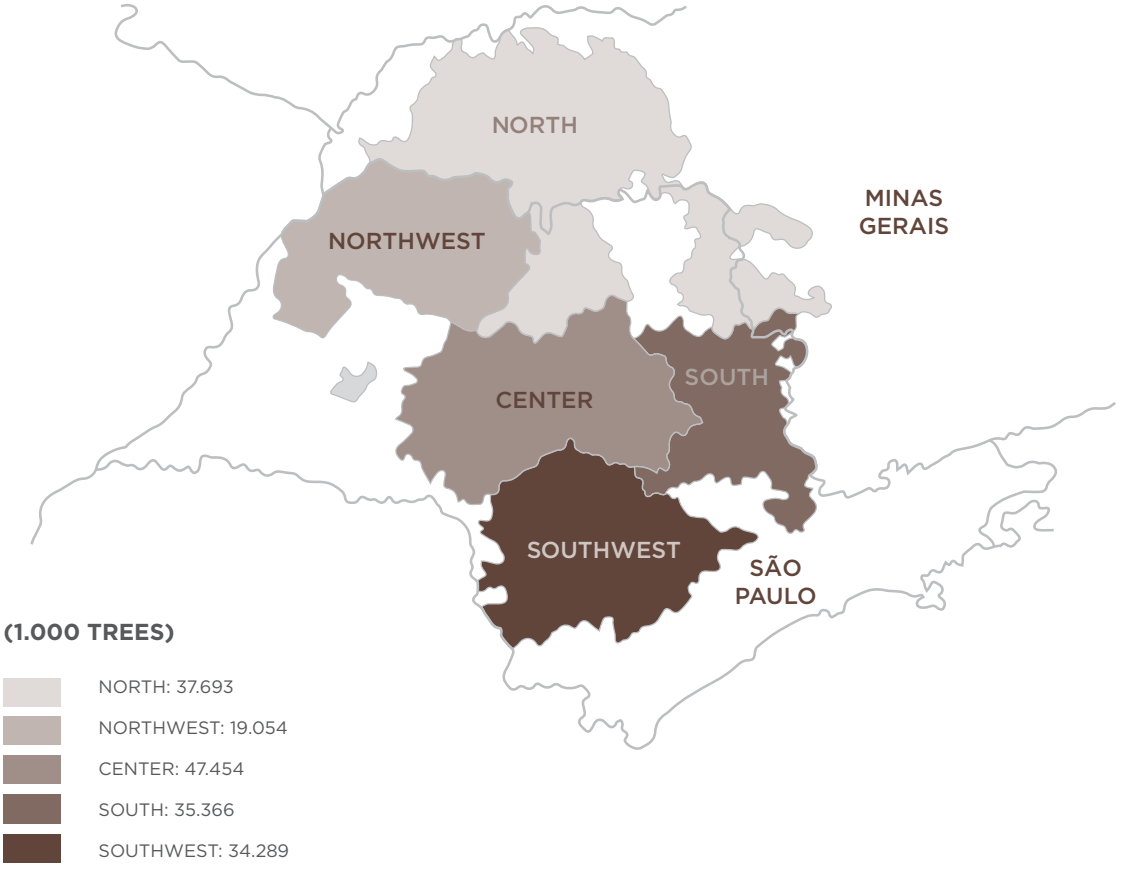
According to Ibiapaba Netto, Executive Director of CitrusBR, Brazilian orange juice exports are basically of the concentrated and reconstituted types. In the former, explains Ibiapaba, part of the water is extracted, and then added by the client-exporter, which is the case of bottlers, in accordance to the products these companies plan to sell in the retail market. For the latter, stresses the Executive Director of CitrusBR, there is the beverage´s natural water, that is also sold to bottlers, but now in a format with a different characteristic, that of a “ready to drink beverage”.

Notwithstanding this, in the director´s evaluation, one of the challenges for the domestic orange is to reach, with its own brand, the gondolas of international supermarkets. “We continue to be halfway in the chain of production.”

CITRUS BELT

The so called citrus belt, the region where the greatest concentration of properties that are devoted to the commercial production of oranges in Brazil encompasses the municipalities of the State of São Paulo and some in Minas Gerais, specifically located in the regions of the "Mineiro Triangle" and the Southeast of this State.

PRODUCTIVE ORANGE TREES PER REGIONS / TOTAL: 174.126 MILLION TREES



Source: Fundecitrus

According to a study "Inventory of trees in the citrus belt of São Paulo and Minas Gerais", launched this year by the Fund for the Defense of Citrus Growers (Fundecitrus), the citrus groves area totals 482.5 thousand hectares in the citrus belt, and is distributed in 11.5 thousand farms located in 349 cities.

With 444.5 thousand hectares, oranges are the citric fruit par excellence with the greatest cultivated area, followed by acid limes and lemons with 27.9 thousand hectares and by tangerines with 10 thousand hectares.

Orange varieties that most stand out in the citric belt are: Hamlin, Westin, Rubi Valencia Americana, Valencia Argentina, Seleta, Pineapple, Pera Rio, João Nunes, Valencia, Natal and Valência Folha Murcha.

The orange trees of the most representative varieties add up to 174.13 million productive ones, of which 22% have ages between three to five years, 45% between six and ten years and 33% above ten years.

The average size of a citrus property is of approximately 42 hectares with stands measuring 8.50 hectares on average. Properties with less than 100 thousand Orange trees correspond to 91% of the total number of citrus properties in the citrus belt. If we consider up to 500 thousand trees, this rate reaches 98%.

According to the Fundecitrus report, significant gains have been observed referring to technological evolution and management, with a highlight to the densification technique and irrigation systems, among the groves cultivated in more recent years, if compared to the older ones.

Groves that are older than a decade present a density of 364 trees/hectare, while those that are under formation, that is, whose trees still have not attained three years of age have 631 trees/hectare.

The orange grove area with irrigation totals 105.7 thousand hectares, corresponding to 24.6% of the total orange area, in groves that are over ten years. More than half of the irrigated area is in properties with over 500 hectares.

When it comes to the challenges in the groves, it is pest control and diseases, which bring losses, evidently, agronomic ones and of course financial as well. As regards productivity, specialists state that the sector has potential, and needs to increment it. Currently, the average productivity is of two boxes of 40.8 kg per tree a year.

For the 2015/16 season, another study carried out by Fundecitrus, this time in a partnership with the Markestrat Consulting company, as well as with the teaching institutions USP and Unesp, estimates that the production should reach 278.99 million boxes (40,8 kg), with an estimated number of productive trees reaching 174.1 million.

ORANGE HARVEST ESTIMATES FOR 2015/16 PER REGION / TOTAL: 278.99 MILLION BOXES OF 40.8 KG

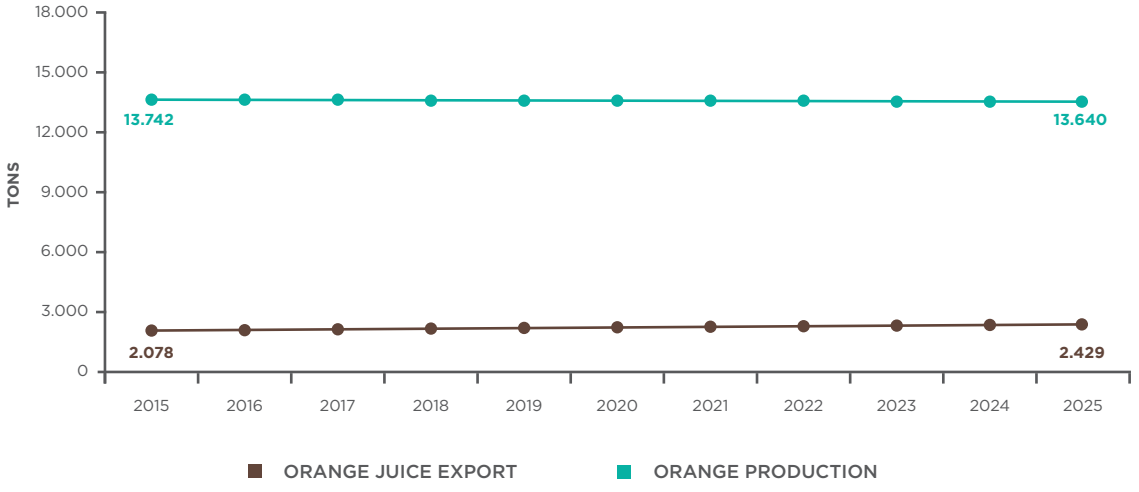
Source: Fundecitrus

OPPOSITE PATHS

IN THE COMING TEN YEARS, ORANGE PRODUCTION WILL TAKE A SMALL STEP BACKWARDS, WHILST JUICE EXPORTS WILL HAVE A SLIGHT INCREASE

Brazilian orange production should drop from 13.7 million tons in the 2015 harvest to 13.6 million tons in 2025, according to the Mapa projections. The cultivated area will also have a drop, which should occur mainly due to the decrease in activity in the State of São Paulo.

ORANGE PRODUCTION AND EXPORTS OF ORANGE JUICE



Source: AGE/MAPA and SGE/EMBRAPA

As the main producer in the country, São Paulo has been diminishing the orange harvest area. In 1990, the State had an area of 722.8 thousand hectares which dropped to around 456.8 thousand in the last two years, a reduction of 36.8%.

In its turn, production has been maintained at around 13 million tons a year, according to a survey disseminated this year by the IBGE (Brazilian Institute of Geography and Statistics).

The productivity expressed in tons produced per area harvested has varied in the last few years between 20 and 22 tons per hectare, without pointing to a downward trend.

According to Mapa forecasts, orange juice exports should, within a decade, advance from the current level located at around 2.1 million tons to 2.4 million tons- an increase of 16.9% in the amount exported.

STRATEGIES TO CONQUER NEW CONSUMERS

TO ACTIVATE DEMAND, ORANGE JUICE WILL UNDERGO NEW MARKETING ACTIONS AND PUBLIC RELATIONS

Research from the Markestrat consultancy warns that orange juice has been losing ground in the last few years to other juices and beverages, among which are the aromatized and energetic beverages, for example. Launched ever more frequently, these beverages, underscores the study, have been gaining space in the Market, be it due to the fact they have less caloric content, cost less for the consumer or represent an opportunity for better margins for bottling companies and for wholesale and retail chains.

In the following ping-pong, Ibiapaba Netto, Executive Director of CitrusBR, gives a peek view on the marketing and public relations efforts that are underway and being strengthened to halt the drop in consumption and especially win over the new consumer.

DOES THE DOWNWARD TREND PREVAIL IN WORLDWIDE CONSUMPTION? IF AFFIRMATIVE, HOW TO INVERT THAT? WITH WHICH APPEAL?

Yes, the trend remains. In our last survey that uses the data from TetraPak and Euromonitor, compiled by Markestrat to verify the demand of the 40 main consuming countries, we observed that between 2004 and 2014, world consumption of orange juice dropped 15.3%. This means that during that period, the world stopped consuming 450 million boxes of oranges in the form of juice. That represents more than the current harvest.

We have a project that is being formatted or structured in a partnership with AIJN, which is the European juice association, to carry out work in public relations for fruit juices, among which is orange juice. The idea is to work jointly with physicians, nutritionists and opinion makers on a series of studies that we already have, and that speak about the benefits of orange juice. This project is at the final stage of negotiation and should begin in brief.

WHICH WERE THE MAIN RESULTS OF THE MARKETING CAMPAIGN "I FEEL ORANGE"?

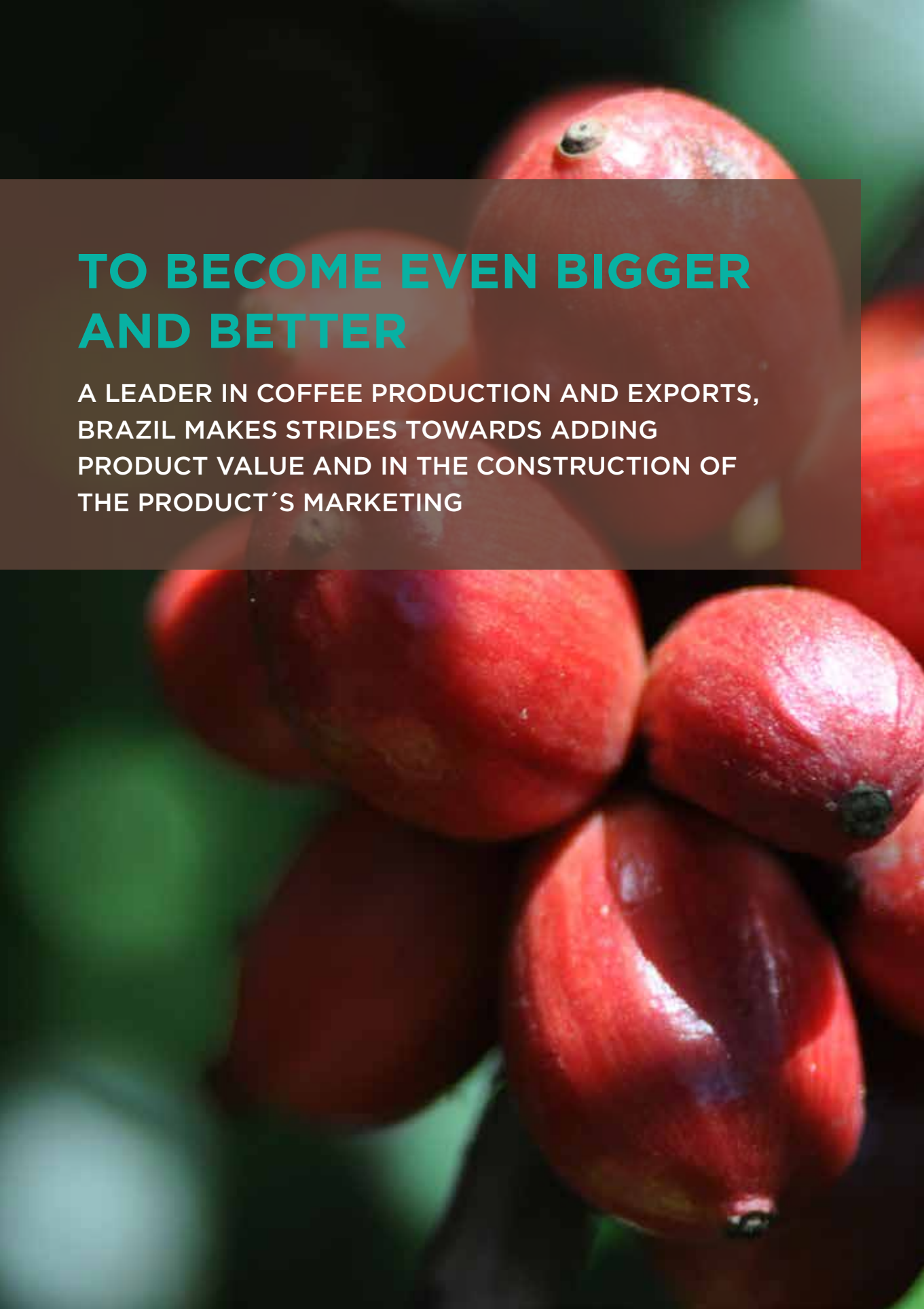
In truth, this campaign was a "rehearsal" to work with the marketing for orange juice. It was developed as a pilot-project in England, with good participation of social media and actions such as, for example, the publication of a recipe book with illustrations made by a famous artist in that country.

It was a project that contributed with great learning on consumption habits and the consumer´s viewpoint on orange juice. This effort ended up in a broad study on the characteristics of the main consumer markets for the product, helping us map the causes underlying the drop in consumption. This work is the embryo of a project we are developing currently along with AIJN in Europe.

TEN MAIN BRAZILIAN ORANGE JUICE PRODUCERS AND EXPORTERS

1. Cutrale
2. Citrosuco
3. Louis Dreyfus Commodities
4. Natural One
5. Xandô (Sucorrico)
6. Agromex
7. Hildebrand
8. Guaxo
9. Selial Citrus
10. Bascitrus

Source: CitrusBR



TO BECOME EVEN BIGGER AND BETTER

A LEADER IN COFFEE PRODUCTION AND EXPORTS, BRAZIL MAKES STRIDES TOWARDS ADDING PRODUCT VALUE AND IN THE CONSTRUCTION OF THE PRODUCT´S MARKETING

Coffee is a part of Brazilian history and of a large part of the world. The first fruit trees at that time were cultivated in Brazil in the XVIII Century.

From that time up to present, the activity – that reached its apogee between the end of the XIX Century and beginning of the XX Century, at that time being the main item on the Country´s exporting agenda, developed considerably, allowing Brazil to consolidate itself as the largest green coffee bean producer and exporter in the world. Brazil accounts for 35% of the supply of all the coffee consumed in the planet.

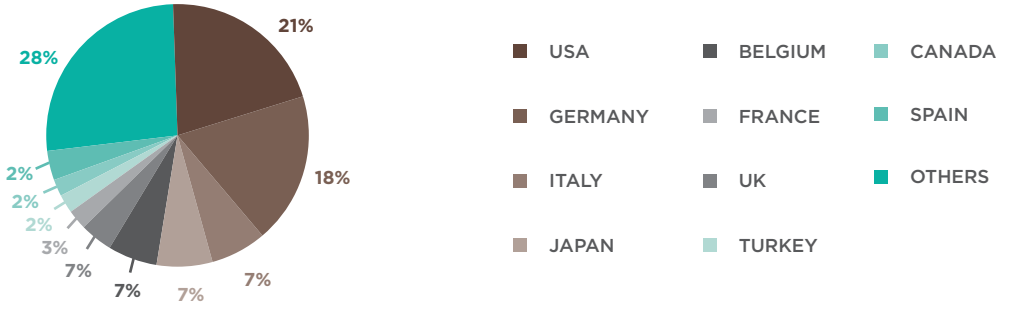
With production and shipments estimated respectively at 44 million and 30 million 60 kg bags, currently coffee production is present in approximately 15 Brazilian states, with a highlight for Minas Gerais, Espírito Santo, São Paulo, Bahia, Paraná and Rondonia, allowing for the possibility to offer varied types of products, by-products of the conilon or robusta species and arabica.

According to data from the National Supply Company (Conab), a state company linked to the Ministry of Agriculture, Livestock and Supply (Mapa), production of Arabica coffee- the best quality one, is of 32.9 million bags, around 74% of the volume produced in the country. In its turn, the production of conilon, estimate at 11.35 million bags represents 25.7% of the total. The cultivated area represents almost 2 million hectares.

EXPORTS

Coffee is the fifth most exported item in Brazilian agribusiness, responsible for almost 5% of export revenues from agricultural products in the country, equivalent to approximately US$ 5.2 billion. The main buyers are the European Union (EU), United States (USA), Japan, Canada, South America and Turkey.

SHARE % IN QUANTITY OF BRAZILIAN COFFEE EXPORTS BY COUNTRY OF DESTINATION



Source: Arabica, Robusta and Roasted & Ground - CECAFÉ / Soluble - ABICS

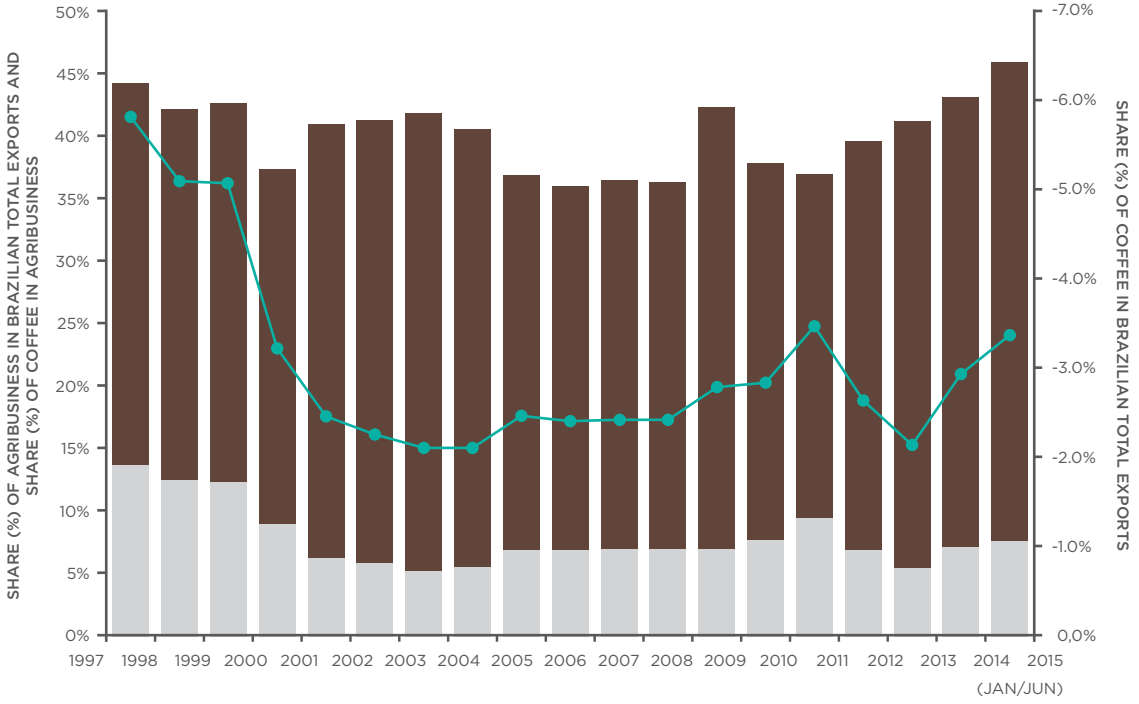
BRAZILIAN COFFEE EXPORTS TO THEIR MAIN DESTINATIONS.

COUNTRY OF DESTINATION	JAN-15 TO JUL-15	JAN-14 TO JUL-14	VARIATION (%)
USA	4.305.636	4.363.693	-1.33%
GERMANY	3.726.281	3.951.583	-5.70%
ITALY	1.533.653	1.548.316	-0.93%
JAPAN	1.383.576	1.330.234	4.01%
BELGIUM	1.383.409	1.339.670	1.77%
UK	695.937	440.650	57.93%
FRANCE	-467.817	384.891	21.55%
TURKEY	-467.724	382.819	22.18
CANADA	-443.204	504.816	-12.20%
SPAIN	-432.086	429.383	0.63%
SUBTOTAL	14.819.523	14.676.055	0,63%
OTHERS	5.698.973	5.947.857	-4.18%
TOTAL	20.518.496	20.623.912	-0.51%

CROP: JANUARY TO JULY / 60 KG BAGS

Source: Arabica, Robusta and Roasted & Ground - CECAFÉ / Soluble - ABICS

SHARE (%) OF COFFEE IN BRAZILIAN AGRIBUSINESS AND TOTAL EXPORTS

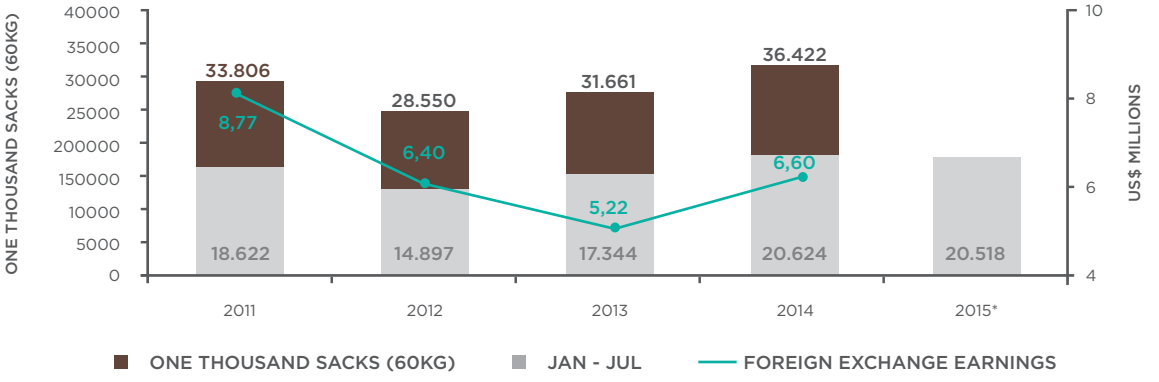


- SHARE (%) OF AGRIBUSINESS IN BRAZILIAN TOTAL EXPORTS
- SHARE (%) OF COFFEE IN AGRIBUSINESS
- SHARE (%) OF COFFEE IN BRAZILIAN TOTAL EXPORTS

Source: Exports - CECAFÉ | Agribusiness and Other Sectors (Imports and Exports) - SECEX/MDIC

More recent figure referring to the first seven months of the year reveal that the Brazilian exchange revenues from coffee grew 4.5% vis-à-vis the previous period, closing at US$ 3.6 billion. Volumes remained practically stable, recording a drop of 0.5% in the same comparison base. The data is from CeCafé (Coffeee Exporter´s Council of Brazil).

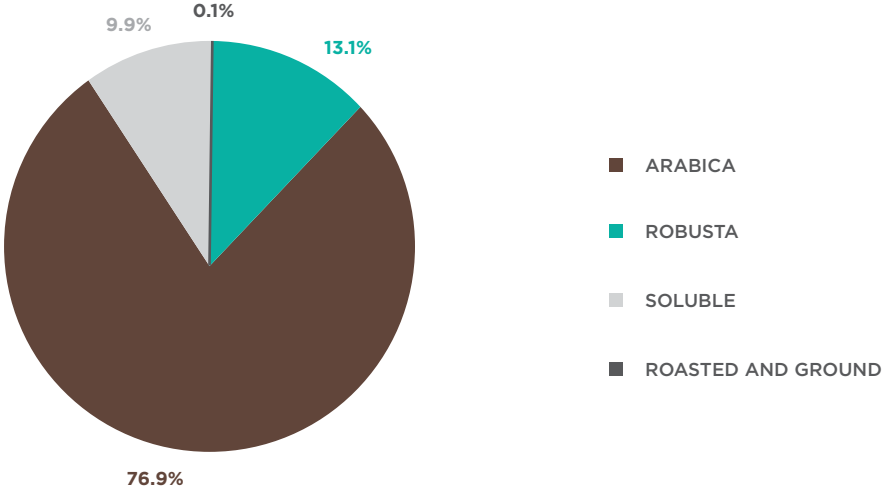
VOLUME EVOLUTION AND EXCHANGE REVENUES FROM COFFEE EXPORTS



Source: CeCafé

Considering the product quality, this survey shows that the arabica variety is responsible for 76.9% of the country´s sales, followed by the conilon shipments (13.1%), soluble coffee (9.9%) and roasted and ground (0.1%).

SHARE % IN QUANTITY IN BRAZILIAN COFFEE EXPORTS BY TYPE



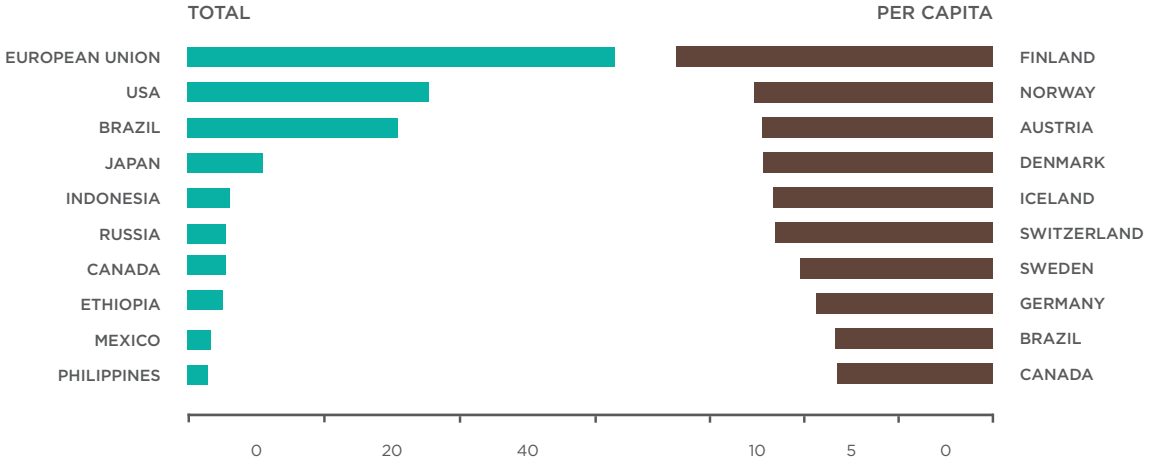
Source: Arabica, Robusta and Roasted & Ground - CECAFÉ / Soluble - ABICS

Mapa projections point to the fact that Brazil will continue to be the largest world producer and exporter of coffee, at least for the next decade.

Up to 2024/25, exports of this product should reach 45 million bags, an increase of 22% on the results forecast for the 2014/15 season. Production, in its turn, should grow 21% over and above the current one.

As expected, besides this leading role in production and exports, Brazil is also a large coffee consumer, occupying the third position, behind the EU and the USA -, according to the ICO (International Coffee Organization). Domestic consumption, according to Abic (Brazilian Association for the Coffee Industry) statistics, has had an annual growth and is located at around 21 million bags, and should attain the mark of 27 million in 2024/25, as foreseen by Mapa.

TEN LARGEST COFFEE CONSUMERS



Source: ICO

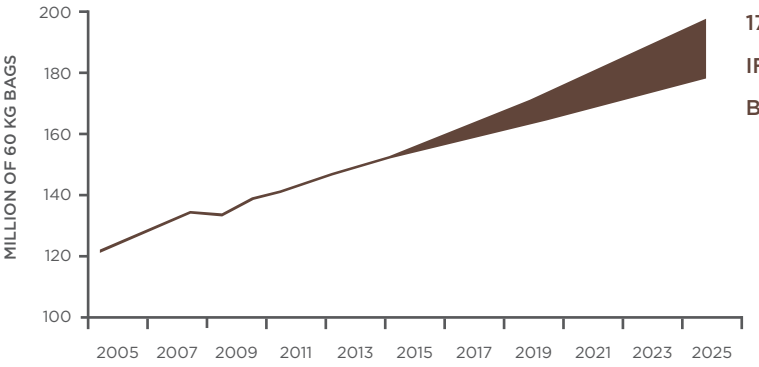
The sector´s industrial link has been undergoing an accentuated concentration process, with the ten largest companies [see box at the end of article] – from a total of approximately 1.2 thousand Abic members, accounting for 74.4% of the volumes produced in the country.

When it comes to the prior stage, production of crops, Brazilian coffee crops have made strides in productivity [greater volume per hectare], as well as in quality, through specialty coffees and certifications, such as products with geographic indication, with the aim of reaching better markets, observing trends linked to demand pointed out by the ICO.

WORLD CONSUMPTION PROJECTIONS

According to a survey by the ICO, global coffee consumption has been growing, year after year, at a rate of about 2.3%. Even in a more conservative scenario, the expectation is that in 2025 the world market will demand approximately 25 million additional bags compared with the present volume, projected at around 149.3 million bags.

PROJECTED WORLD CONSUMPTION



175 TO 195 MILLION BAGS BY 2025 IF THE GROWTH RATE WAS OF BETWEEN 1.5% AND 2.5%

Source: ICO

The consumption increase would take place through exporting countries (Brazil, Indonesia, Ethiopia, Mexico), but more specifically through emerging markets, traditionally not great coffee importers. In this latter group, those that stand out are countries in Asia, with an emphasis on China and South Korea; the Middle East and East Europe, as well as in the North of Africa.

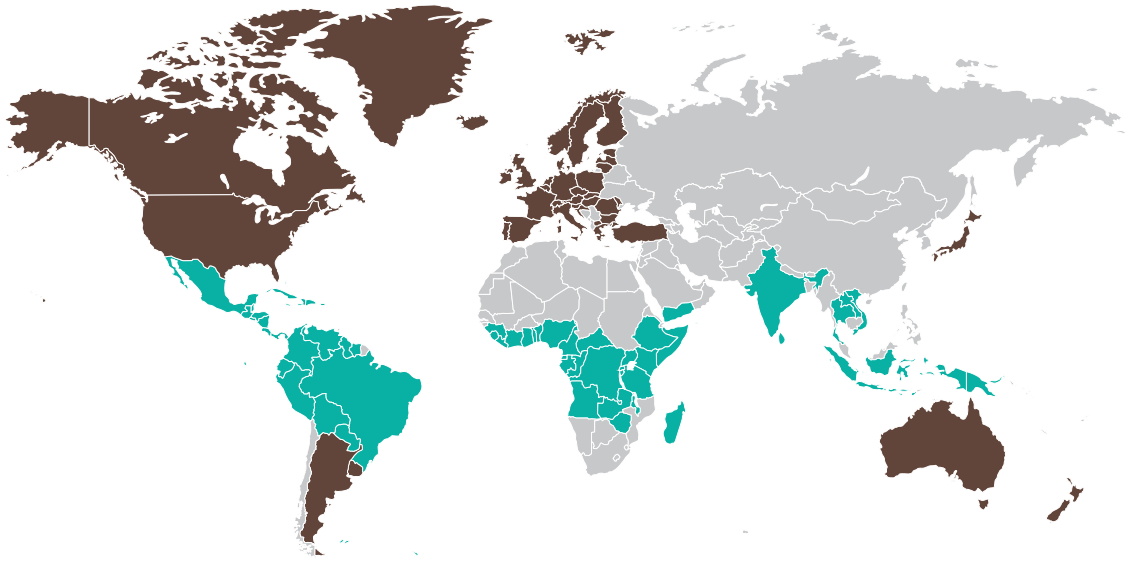
Since 2000, according to the ICO, consumption has increased more than two-fold in emerging markets, with the thrust of expansion due to economic growth, associated to income gains.

Still according to the ICO, exporting countries are acquiring a taste for coffee, thus leveraging demand in such countries. Notwithstanding this, this phenomenon may also mean lower availability of the product volumes for export, as the organization warns.

In traditional markets (EU, USA, Japan, Canada), consumption trends are going in the direction of products with greater added value, where attributes such as origin and manufacturing process, as an example, become ever more relevant.

PROJECTION GRAPHS

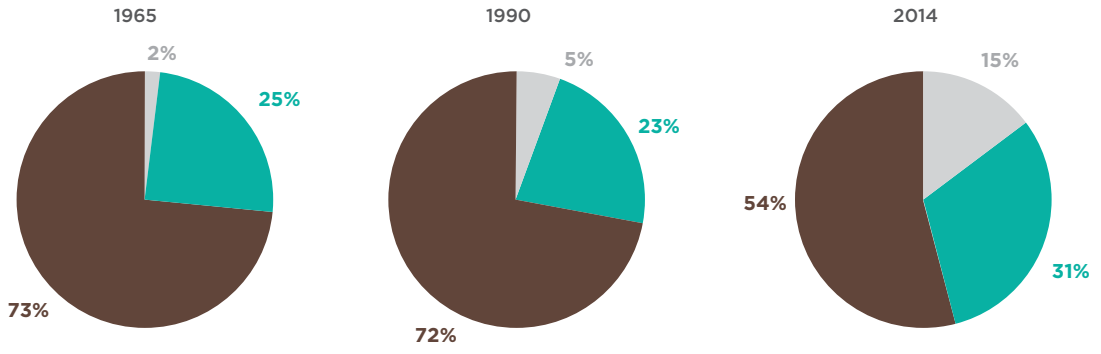
WORLD CONSUMPTION DISTRIBUTION



TRADITIONAL MARKETS EXPORTING COUNTRIES EMERGING MARKETS

Source: ICO

WORLD CONSUMPTION DISTRIBUTION



TRADITIONAL EXPORTING COUNTRIES EMERGING MARKETS

Source: ICO

INVESTING EVER MORE IN SPECIALTY COFFEE

BRAZIL PRODUCES AROUND FIVE MILLION BAGS OF BEANS, DEEMED AS "GOURMET"

In the last two decades, the coffee sector with the greatest growth is that of specialty coffee, referring to the quality and the origin of the bean or even to the manufacturing process. Currently, this segment already represents around 12% of the product´s international market.

Albeit with a cost 30 to 40% steeper for the consumer, compared to the common type, "gourmet" coffees, among which are the organic ones, decaffeinated, aromatized, etc., have gained a growing number of fans around the globe. In Europe, as an example, around 60% of consumption refers to specialty coffee.

Paradoxically, despite having a production cost relatively similar to the tradition product and a much higher remuneration – the bag of specialty coffee can be sold for twice the price -, however, the production of "gourmet" type coffee is still quite low in Brazil.

Arthur Moscofian, owner of the farm and of Café Santa Mônica is one of the largest specialty coffee producers in the country, and will not sell a bag of his product for less than R$ 800, while the value in the market for the conventional type will run for approximately R$ 400.

According to statistics from the Brazilian Specialty coffee Association (BSCA), annual production in the country is located at about five million bags, and spread throughout the main producing states, with a special highlight for Minas Gerais. From this total, four million bags are destined to exports, and one million for the internal market.

Additionally, what can be observed is a trend for growth in domestic demand for specialty coffee, thanks to the population´s enhanced knowledge on the qualities and advantages of this type of consumption, and also due to the increase in purchasing power for many families.

Within the niche of "gourmet" products, the capsule and sachet segment, for example, has been gaining ground speedily, due to the addition of value and the high profitability it poses. A study by the ICO evaluates that the consumption of coffee through these new formats still represents a minor parcel of the Brazilian Market, although it is a sector with high growth potential – of about 50% per year in the next few years, as estimated by Abic.

OLYMPIC COFFEE

BRAZIL WANTS THE OLYMPICS TO BECOME A SHOWCASE FOR THE PRODUCT

Despite the fact that Brazil is the largest green coffee producer and exporter, undeniably the country continues to be a supporting actor in world trade when it comes to products with greater added value [roasted and ground, soluble, specialty coffee, etc.], and also in terms of marketing production.

The country is a leader in export volumes, but Germany, for example, – despite not cultivating a single coffee tree – is a leader in invoicing. Germans import raw material from the leading coffee producers for domestic industrialization, adding value to their own business.

Much like the mythical character "Juan Valdez", Colombia, Brazil´s regional rival, has set up throughout the years a strategy to add value to its coffee that is very efficient. Hollywood productions and the Roland Garros tournament tennis courts have been the showcase for Colombian coffee, constantly praised as being the best in the planet.

Investments in marketing are needed so that Brazilian coffee can be acknowledged as a product with quality abroad, as in the domestic market as well. One of the actions that is under study to change this scenario refers to our sports calendar.

At a recent meeting with the coffee producing sector, the Minister of Agriculture, Kátia Abreu, stated she plans to create partnerships with the Ministry of Tourism to work on marketing actions during the 2016 Olympic Games, that will take place in August in the city of Rio de Janeiro.

According to Abic´s assessment, it is necessary to stimulate coffee consumption by further investing in marketing, advertising, in product differentiation and in innovation. For the entity, the behavior of consumers worldwide has been to expand their tasting and to value products with better quality, with certification and that are sustainable.

PARTNERSHIPS

For the CNC (National Coffee Council), as part of the challenge to make feasible strategies to strengthen Brazil´s share in roasted and ground types of coffee, and the soluble one, what is needed are partnerships with large international tasting companies, to hike up the share of Brazilian coffee in "blends", and include in the packaging that the product is made with Brazilian coffee.

Another effort, according to the CNC, would be the creation of export processing areas or zones, which, among other factors, would make drawbacks possible, with Brazil importing coffee to industrialize it and export it, as a way of increasing its market share.

A global marketing program for Brazil is also recommended as a way to "do away with the foreign discrimination" against the product, as Brazilian coffee is taxed in the European Union countries, in China and in other markets, while other competitors, such as Colombia and other countries in Central America enter these same markets with lower costs.

THE TEN MAIN BRAZILIAN COFFEE PRODUCERS AND EXPORTERS

1. Café Três Corações S/A
2. D. E. Cafés do Brasil Ltda.
3. Indústria de Alimentos Maratá Ltda.
4. Melitta do Brasil Ind. e Com. Ltda.
5. Cia. Cacique de Café Solúvel
6. Mitsui Alimentos Ltda.
7. São Braz S/A Indústria e Comércio de Alimentos S/A
8. Café Bom Dia Ltda.
9. Café Pacaembu Ltda.
10. Foods Indústria e Comércio Ltda.

Source: Associação Brasileira da Indústria de Café - Abic

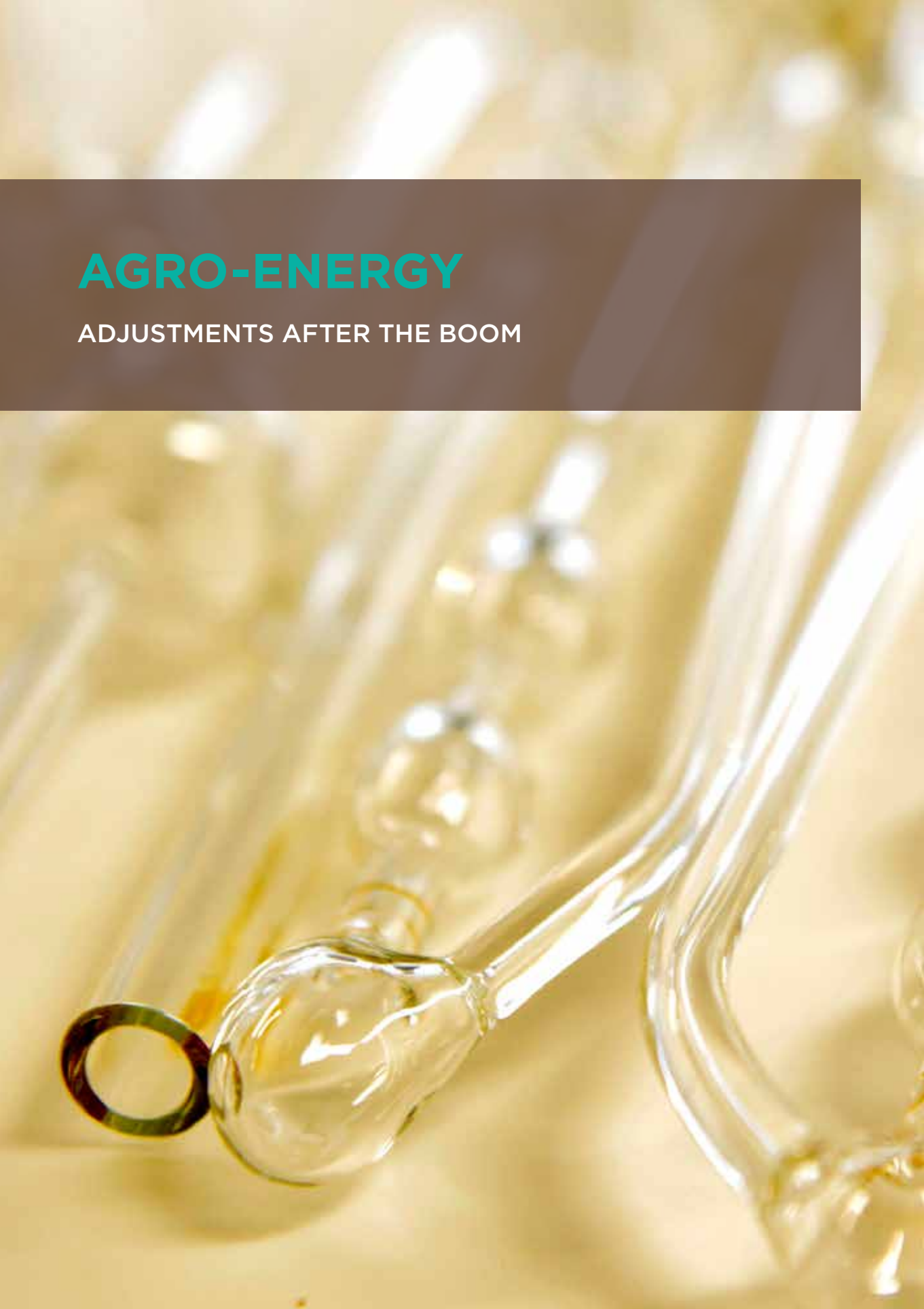
THE TEN MAIN BRAZILIAN COFFEE EXPORTERS

- Companhia Cacique de Cafe Soluvel
- Coop Regional de CAFEIC em Guaxupe LTDA
- Custodio Forzza Comercio e Exportação
- EISA - Empresa Interagricola S/A
- Exportadora de Café Guaxupi LTDA
- Louis Dreyfus
- Outspan Brasil Importação e Exportação
- Stockler Comercial e Exportadora LTDA
- Terra Forte / Grande Leste
- Unicafe Companhia Comercio Exterior

Source: Conselho dos Exportadores de Café do Brasil – CECAFÉ

AGRO-ENERGY

ADJUSTMENTS AFTER THE BOOM



The last decade has witnessed a period of strong optimism for the biofuel markets. There were expectations that demand for fuels obtained from biomass would grow considerably, replacing part of the demand for fossil fuels. Unfortunately, reality has proven to be much more complicated and the process to set up an international market for these products was slower and more costly than foreseen initially. In Brazil, the frustrated expectations led to a serious crisis of excess installed capacity in the sector. It is only now that a light begins to appear at the end of the tunnel.

ETHANOL: STILL A PRODUCT IN THE DOMESTIC MARKET

Ethanol is the main biofuel in the world market. In 2013, according to the International Energy Agency (IEA), it represented over 90% of the total world biofuels production. To have an idea of the importance of ethanol, the second largest biofuel is biodiesel, whose production accounts for a mere 7.6% of the total. The other varieties, such as biogas, vegetable oils and second-generation biofuels count upon what is only a marginal production, responsible for less than 2.5% of the world production.

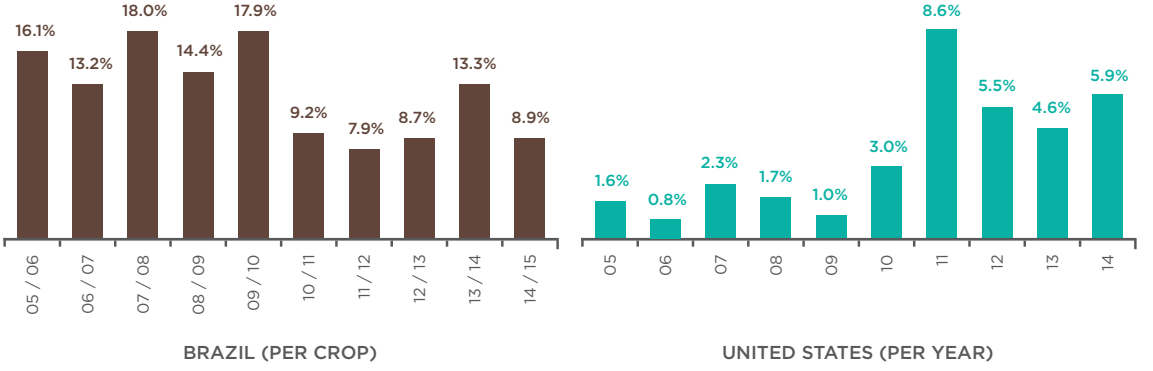
Regardless of which variety, biofuels are essentially products for the domestic market; only a residual fraction has, as its destination, the foreign market, even ethanol. Despite this, the United States and Brazil, which by far are the largest world producers of ethanol – jointly, the two countries account for almost 85% of all of the ethanol produced in the world, and exported in 2014 less than 10% of their total productions.

SHARE OF THE MAIN ETHANOL PRODUCERS IN THE WORLD MARKET IN 2014

RANK	COUNTRY	SHARE
1	UNITED STATES	58.2%
2	BRAZIL	25.2%
3	EUROPE	5.9%
4	CHINA	2.6%
5	CANADA	2.1%
6	THAILAND	1.3%
7	ARGENTINA	0.7%
8	INDIA	0.6%
WORLD (BIGALLON)		24.6

Source: F.O. Licht in Renewable Fuels Association, Ethanol Industry Outlook 2014 report

SHARE OF ETHANOL EXPORTS ON THE TOTAL PRODUCED IN BRAZIL AND THE UNITED STATES



Source: Brazilian Sugarcane Industry Association (UNICA) and Renewable Fuels Association (RFA)

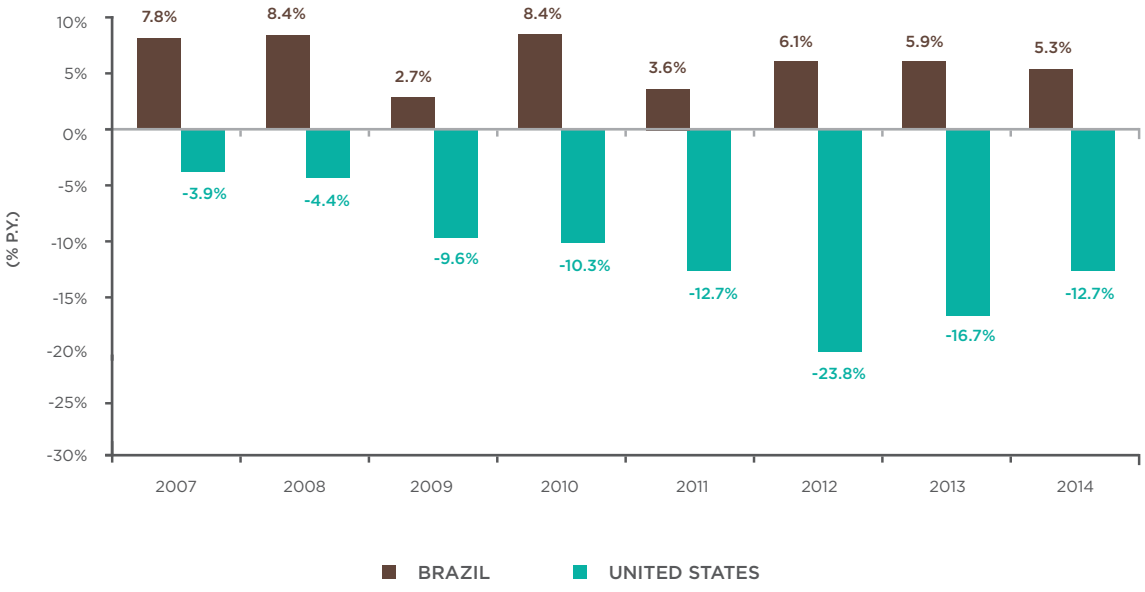
Despite strong expectations for an expansion in the international trade of these products in the past decade, the creation of an international market for ethanol and biodiesel proved to be slow and highly complex. Among the main reasons, those that merit mention are:

- On the demand side, the difficulty of setting up fixed demand (mandatory blends with gasoline) in an environment where there is prevailing uncertainty on which will be the ethanol supply available for the world market; even currently, the supply for the international market depends on the production of a limited number of countries – in the case of ethanol, only two (Brazil and the United States);

- On the supply side: there are complicated hurdles in expanding the biofuel supply, as demand is associated to characteristics not observed in these fuels, mainly those associated to environmental and social sustainability. To signal that a biofuel counts upon those non-observable characteristics, different countries and institutions have set forth different stamps and certificates. As there is great variability in the standards demanded by these stamps and certificates, it is much too risky for a producer to invest in adapting a production process to characteristics demanded by a sole certificate, as these demands could change rapidly;

- On the substitute goods side: consumption of fossil fuels has not grown according to the intensity expected due to the greater efficiency of vehicle engines, the increasing concern about environmental issues and the slowdown of the world economy. As in the vast majority of countries, biofuels are used as additives for fossil fuel, consequently their demand also grows less. Besides the downturn of demand, the plummeting of oil prices in the international market has also reduced the competitiveness of biofuels.

GASOLINE SALES EVOLUTION IN THE RETAIL MARKET, IN BRAZIL AND IN THE UNITED STATES (% P.A.)



Source: Brazilian National Agency of Petroleum, Natural Gas and Biofuels (ANP) and U.S. Energy Information Administration (EIA)

DOMESTIC MARKET: SURVIVORS AMONG THOSE DEAD AND WOUNDED

Currently, the sugar energy sector in Brazil is concluding as lengthy process of crisis that had its onset at the beginning of the past decade. The sugar energy sector in Brazil benefitted from an exceptional blend of factors that created the expectation of a strong demand for its products, with a special highlight for ethanol.

- In the domestic market: the introduction of flex-fuel engines in the automotive market of Brazil beginning in 2003. With this, consumers could decide which fuel they would use to run their cars, evaluating the ratio between the ethanol and gasoline prices; whenever the price of the former was lower than 70% the price of the latter, it was worthwhile fueling up with ethanol;

- In the international market: the Brazilian sugar energy sector also benefitted from the growing international concern with global warming, arising from gas emissions causing the so- called greenhouse effect (GEE). Among those responsible for this problem, fossil fuels received special attention. Soon thereafter, faced with this context, ethanol appeared as an economic and sustainable environmental alternative to gasoline. Through this, Brazilian exports of this biofuel increased considerably up to the 2008/09 harvest.

With the expectation for a growing demand for the near future, the Brazilian agro-energy chain sought out financing and made heavy investments to:

- Expand the raw material supply, especially sugarcane;
- Introduce new technologies (for example, to accelerate the process to eliminate sugarcane burning through mechanization);
- Make logistics ever more efficient; and
- Carry out improvements in the production process.

Besides making the sugarcane energy chain more efficient, the sector also became indebted to be able to respond to a concentration process, through which smaller groups or the less daring ones were incorporated by other with greater financial clout or greater appetite for risk. This period of bonanza came to a stop due to an unfavorable combination of factors, leading to a process of crisis:

- Unfavorable climate events that lead to breaks in harvests and an increase in raw material costs, shrinking the margins of sugar mill owners; there is
- Excess of installed capacity that was idle for some time, reducing the sector´s profitability;
- Gasoline price policies practiced by Petrobras that, to hold back inflation, kept the fossil fuel prices at artificially low levels, exhausting or depleting the ethanol competiveness.

Only now, after five harvests since the beginning of the crisis in the sector has it become possible to see the light at the end of the tunnel. On the one hand, there are measures that reduce the size of the sector, redress the excessive sizing of demand, and on the other, granting greater profitability to ethanol.

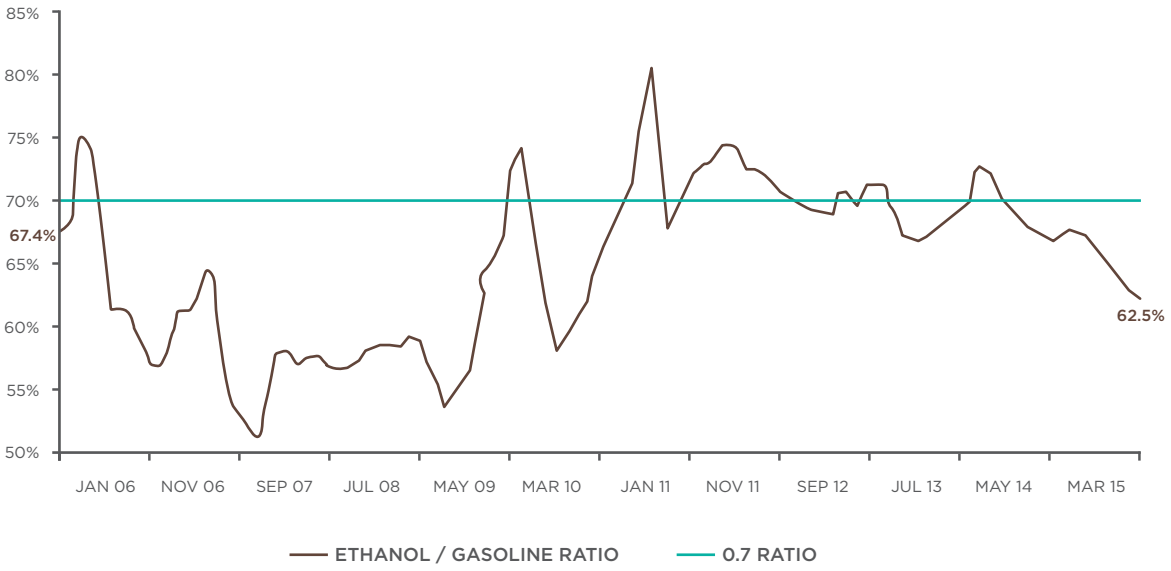
- Reduction in the installed capacity: the problem with of an excessively idle installed capacity is being corrected through mergers, acquisitions, the closing down of plants and bankruptcy of the smaller groups;

- Reduction of the crop areas that supplied sugarcane two harvests ago: sugarcane cultivation done in rotation with other crops, such as soybeans, to improve soil quality, fixate nitrogen and guarantee financial returns during the fallow period. However, due to low profitability, part of the producers have not gone back to producing sugarcane, maintaining the soybean crops even after the rotation period;

- A more flexible policy by Petrobras for gasoline prices: since the beginning of the year, Petrobras has adopted a more realistic policy for its fuel prices, even though this exerts greater pressure on inflation. A recent possibility that there will be an increase in the taxation burden on gasoline reinforces the recovery of the ethanol competitiveness in the Brazilian market.

To sum up, as in any other economic sector in which there is reasonable flexibility and free competition, periods with excessive investments are temporary. Although there are many casualties and many wounded, after the storm comes that period of stability and, if the situation should improve, new investments.

RATIO BETWEEN ETHANOL AND GASOLINE PRICES AT THE PUMP IN BRAZIL



Source: Brazilian National Agency of Petroleum, Natural Gas and Biofuels (ANP)

SUGAR: DROPPING PRICES, DESPITE AN INVENTORY SHRINKAGE

According to USDA projections, the global demand for sugar for the current harvest will be of approximately 174.2 million tons. Should this projection confirm, it will be the highest volume consumed in the history of this market. In truth, this result is not exceptional in the current harvest; world consumption for sugar has continued to boom for some time. If these figures confirm, the 2015/16 harvest will be the eighth to break a record in consumption, consecutively.

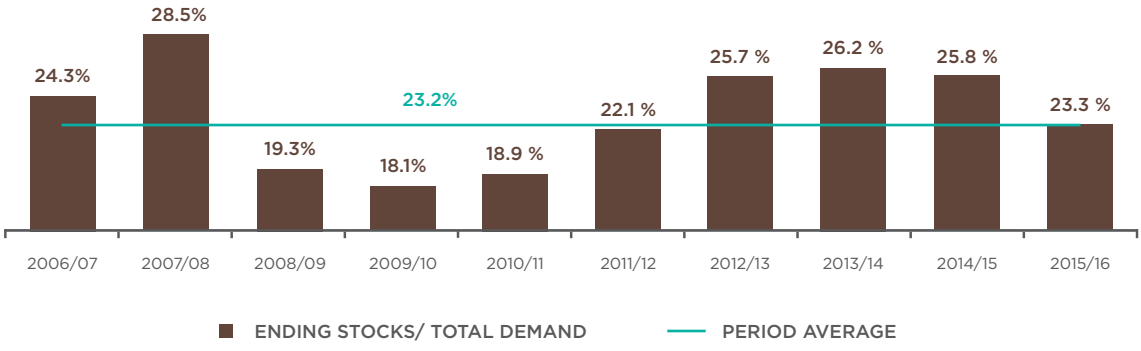
The projection for a reduction in inventories for the second consecutive harvest suggests that supply will not grow with the same intensity as demand. Still according to USDA projections, the world sugar supply should increase 0.25% this harvest, after having recorded a weak expansion in the previous harvest (0.15%). It is important to have clarity that the weakness of this expansion is the result of a contraction in supply from important producers in India (-1.47%), the European Union (-7.46%), China (-1.64%) and the United States (-0.9%), that was only slightly offset with the increase of production in Brazil (0.42%), Thailand (3.92%), Pakistan (3.82%), Australia (2.13%) and Russia (3.45%). The combination of demand exploding at a greater intensity than supply has led to a reduction in total world inventories.

SHARE OF MAIN SUGAR PRODUCERS IN THE WORLD MARKET IN THE 2015/16 HARVEST *

RANK	COUNTRY	SHARE
1	BRAZIL	20.8%
2	INDIA	16.8%
3	EUROPEAN UNION	8.9%
4	THAILAND	6.6%
5	CHINA	6.2%
6	UNITED STATES	4.4%
7	MEXICO	3.7%
8	PAKISTAN	3.1%
9	AUSTRALIA	2.8%
10	RUSSIA	2.6%
WORLD (MITON)		173.4

Source: USDA

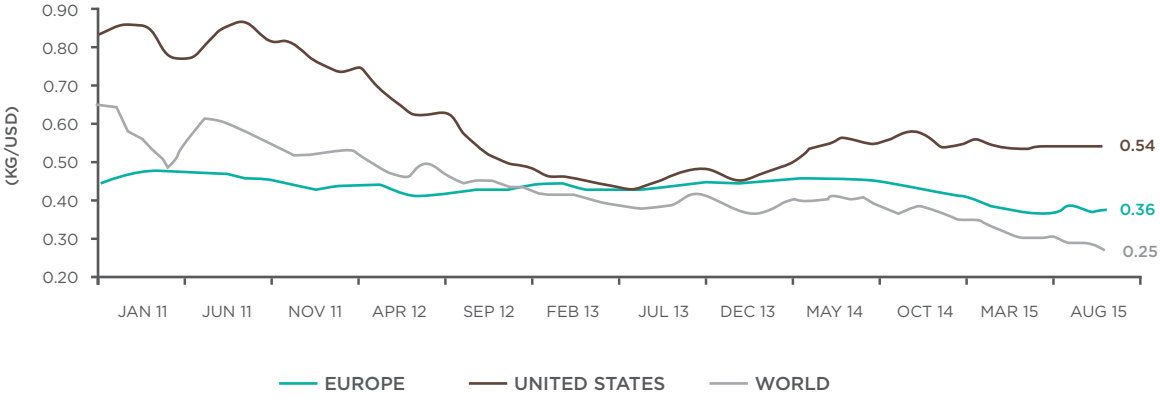
EVOLUTION OF THE ENDING STOCKS/TOTAL DEMAND RATIO IN THE LAST TEN HARVESTS



Source: USDA

Curiously, despite the inventory contraction since the last harvest (2014/15), prices in this sector have presented a falling trend at least since the first semester of 2014 – for sugar traded outside of the European Union and USA markets, they have been dropping since the second semester of 2011. This apparent contradiction, as in markets with other commodities, such as grains, is explained by the dollar appreciation. As the North American currency gains force, commodities measured in dollars tend to reduce their prices to maintain their "real" value.

EVOLUTION OF SUGAR QUOTATIONS IN THE EUROPEAN AND NORTH AMERICAN MARKETS AND THE REST OF THE WORLD, MARKETS, BETWEEN JANUARY OF 2011 AND AUGUST 2015



Source: World Bank

ADDITIONAL TABLES

THE FIFTEEN TOP BIOFUEL PRODUCERS IN THE WORLD

RANK	COMPANY	COUNTRY	PRODUCTION CAPACITY IN 2012 (MI GALLONS)
1	ARCHER DANIELS MIDLAND CO.	UNITED STATES	1720
2	POET BIOREFINING	UNITED STATES	1629
3	COPERSUCAR	BRAZIL	1268
4	VALERO RENEWABLE FUELS	UNITED STATES	1130
5	ODEBRECHT AGROINDUSTRIAL	BRAZIL	792
6	GREEN PLAINS RENEWABLE ENERGY	UNITED STATES	730
7	RAÍZEN (COSAN + SHELL)	BRAZIL	581
8	BIOSEV (LOUIS DREYFUS)	BRAZIL	475
9	AVENTINE RENEWABLE ENERGY INC	UNITED STATES	460
10	FLINT HILLS RESOURCES	UNITED STATES	440
11	ABENGOA BIOENERGY	UNITED STATES	378
12	BIG RIVER RESOURCES LLC	UNITED STATES	350
13	THE ANDERSONS ETHANOL GROUP	UNITED STATES	330
14	BUNGE	BRAZIL	264
15	CARGILL	UNITED STATES	230

Source: New England Center for Investigative Reporting

THE TOP WORLD ETHANOL PRODUCERS (BI GALLON)

RANK	PRODUCER	2015/16
1	UNITED STATES	14.30
2	BRAZIL	6.19
3	EUROPE	1.45
4	CHINA	0.64
5	CANADA	0.51
6	THAILAND	0.31
7	ARGENTINA	0.16
8	INDIA	0.16
WORLD		24.57

Source: USDA

THE TEN LARGEST SUGAR PRODUCERS IN THE WORLD (PROJECTION FOR THE 2015/16 HARVEST – MI TON)

RANK	PRODUCER	2015/16
1	BRAZIL	36.0
2	INDIA	29.1
3	EUROPEAN UNION	15.5
4	THAILAND	11.4
5	CHINA	10.8
6	UNITED STATES	7.7
7	MEXICO	6.4
8	PAKISTAN	5.4
9	AUSTRALIA	4.8
10	RUSSIA	4.5
WORLD		173.4

Source: USDA

THE TOP WORLD SUGAR EXPORTERS (PROJECTION FOR THE 2015/16 HARVEST – MI TON)

RANK	PRODUCER	2015/16
1	BRAZIL	24.4
2	THAILAND	8.3
3	AUSTRALIA	3.7
4	GUATEMALA	2.4
5	INDIA	2.2
6	MEXICO	1.9
7	EUROPEAN UNION	1.5
8	CUBA	1.1
9	COLOMBIA	0.8
10	PAKISTAN	0.7
WORLD		55.8

Source: USDA

THE TEN LARGEST SUGAR IMPORTERS (PROJECTION FOR THE 2015/16 HARVEST – MI TON)

RANK	PRODUCER	2015/16
1	CHINA	5.5
2	UNITED STATES	3.5
3	EUROPEAN UNION	3.2
4	INDONESIA	3.2
5	UNITED ARAB EMIRATES	2.5
6	BANGLADESH	2.1
7	MALAYSIA	2.1
8	SOUTH KOREA	1.9
9	ALGERIA	1.8
10	NIGERIA	1.5
WORLD		52.9

Source: USDA

THE TEN LARGEST BRAZILIAN BIOFUELS PRODUCERS

1. **Raizen**

   66.8 Milling capacity In 2014 in mi ton

2. **Odebrecht Agro**

   36.7 Milling capacity In 2014 in mi ton

3. **Dreyfus (Biosev)**

   36.4 Milling capacity In 2014 in mi ton

4. **São Martinho**

   23.0 Milling capacity In 2014 in mi ton

5. **Guarani**

   22.5 Milling capacity In 2014 in mi ton

6. **Santa Terezinha**

   21.6 Milling capacity In 2014 in mi ton

7. **Bunge**

   21.0 Milling capacity In 2014 in mi ton

8. **Lincoln Junqueira**

   18.0 Milling capacity In 2014 in mi ton

9. **Noble**

   15.1 Milling capacity In 2014 in mi ton

10. **Tercio Wanderley**

    14.2 Milling capacity In 2014 in mi ton

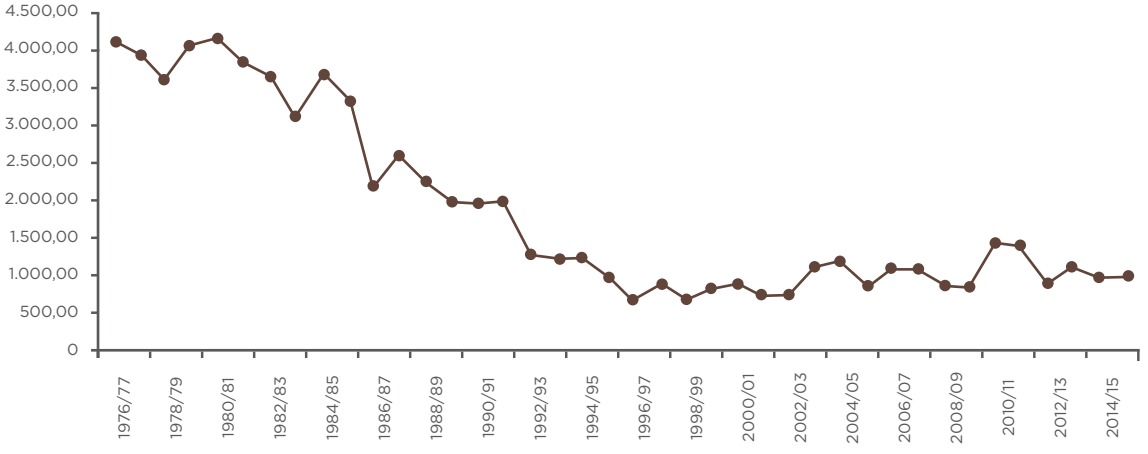
Source: Itau BBA

BRAZILIAN COTTON CULTIVATION RAISES THE BAR

THE COUNTRY IS ONE OF THE FIVE MAIN WORLD COTTON PRODUCERS AND EXPORTERS

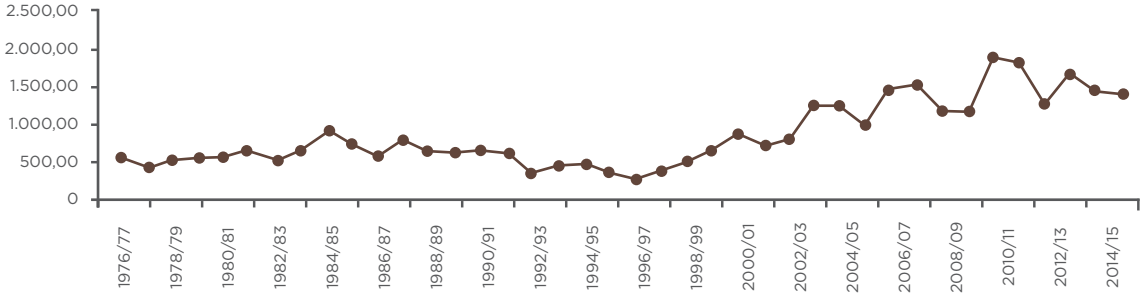
Brazil is a giant in the production of agricultural commodities, and this situation does not differ when it comes to cotton cultivation. Considering the last four harvests – up to the previous 2013/14 season -, the country positions itself with a cotton harvest of around 1.7 million tons, among the five main world markets for the natural fiber, side by side with China, India, the United States (USA) and Pakistan.

CULTIVATED AREA / IN THOUSAND HECTARES



Source: Conab

PRODUCTION / IN THOUSAND TONS



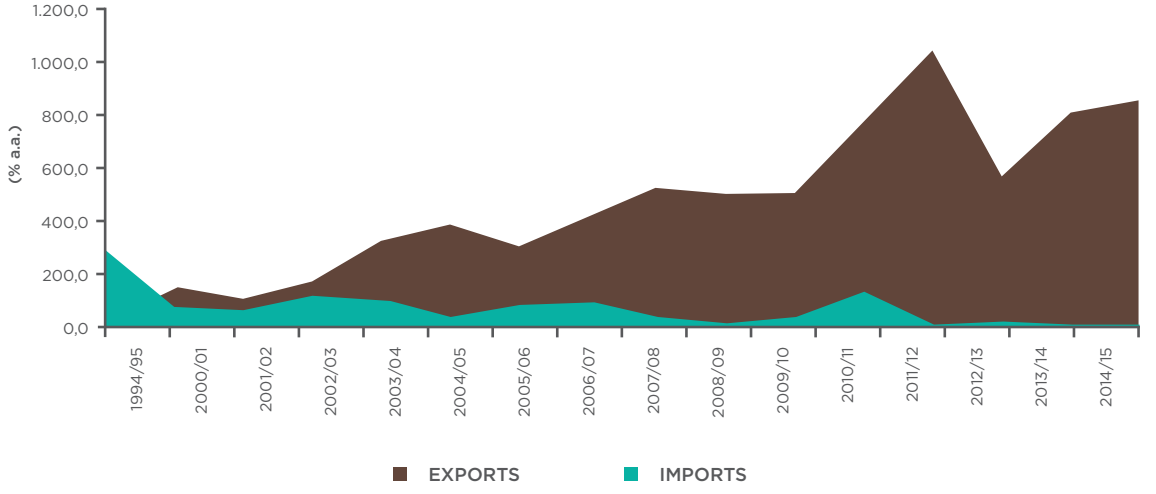
Source: Conab

Considering that same period again, according to Abrapa (Brazilian Cotton Producers Association), Brazil is ranked among the four largest world exporters for this product – in the group that also includes India, the USA and Australia -, with an average volume of shipments coming close to 700 thousand tons.

According to Abrapa statistics, in the 2012/13 cycle, Brazil exported almost one million tons, more precisely 938 thousand tons of cotton. In the following season (2013/14), shipments took a step backwards, dropping to practically half, ending up at 485 thousand tons. For the current cycle, the expectation is that around 733 thousand tons will be exported.

In accrued figures from January to May, shipments have already reached 230 thousand tons, an increase of 90% vis-a-vis the volume exported in the same period last year, leading to revenues of US$ 353 million, an amount 51% above what was observed in the same period in 2014, according to data from Anea (National Cotton Exporters Association).

BRAZILIAN COTTON TRADE BALANCE



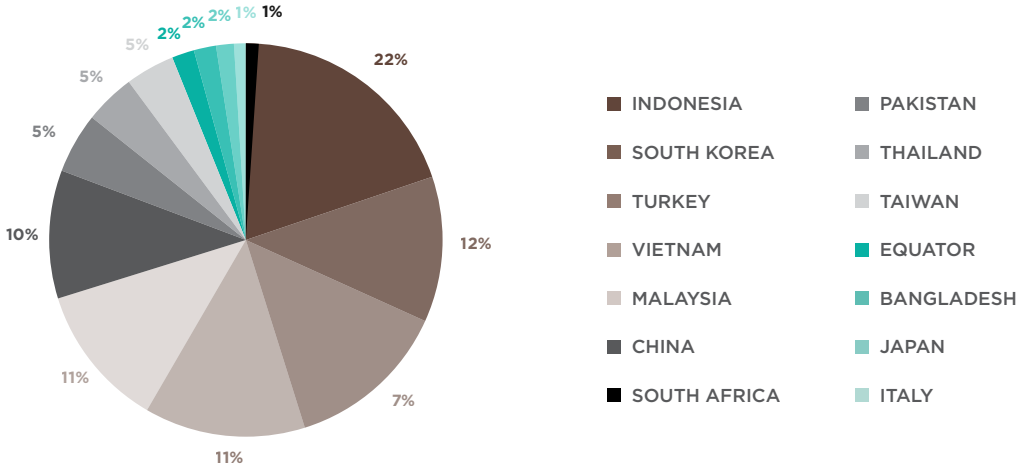
Source: Conab

In 2014, the main destinations for Brazilian cotton were China, Indonesia and South Korea. The year before that, these countries occupied the first three positions, but in different rankings. The first runner was South Korea, followed by Indonesia. China was the third destination. This year, up to present, the main buyers for Brazilian cotton are, in order, Indonesia, South Korea, Turkey, Malaysia and Vietnam.

MAIN MARKETS FOR BRAZILIAN COTTON

JANUARY TO JULY 2015

PERCENTAGE OF SHARE IN VOLUME/TONS



Source: Abrapa

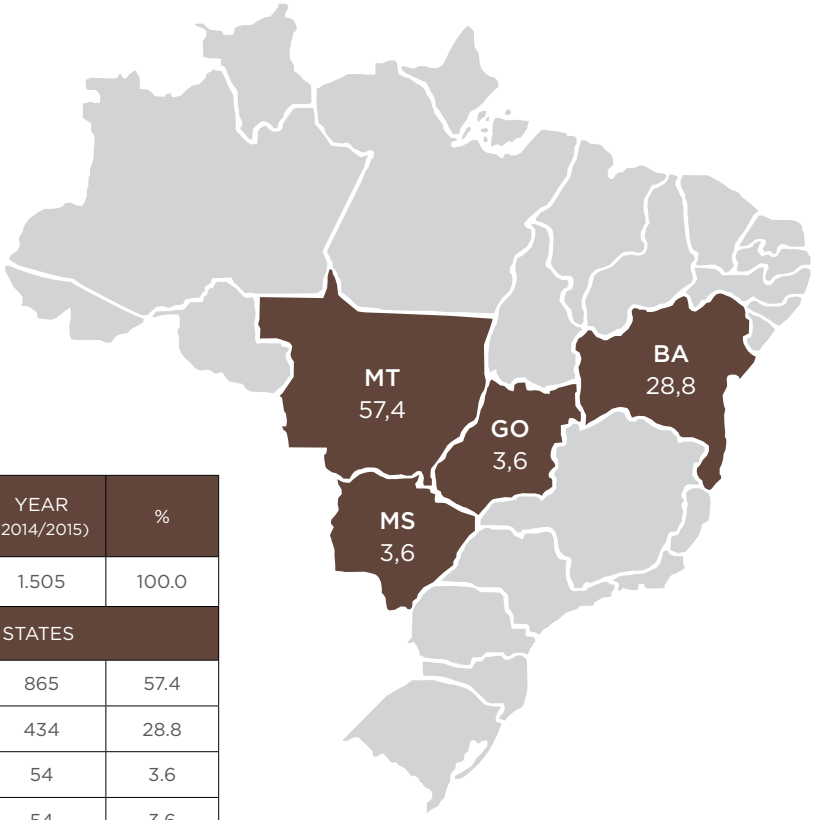
The domestic cotton market is substantial as well, in which Brazil ranks as the fifth largest world consumer, with almost one million tons/year. All of these figures point to the strength of the Brazilian cotton production, with great economic weight and active share in generating wealth for the country. According to the IBGE data (Brazilian Geography and Statistics Institute), the GDP of the cotton chain of production comes close to a figure of US$ 19 billion.

MAIN PRODUCING REGIONS AND LONG TERM ESTIMATES

Estimated at approximately 1.5 million tons for this 2014/15 season, cotton production is mainly concentrated in the States of Mato Grosso (MT) and Bahia (BA), that account for, during the current cycle, 86.2% of the country´s harvest, as signaled by the data from the Ministry of Agriculture, Livestock and Supply (Mapa).

Mato Grosso holds the leadership with 57.4% of the national production [865 thousand tons], followed by Bahia with 28.8% [434 thousand tons]. Ensuing this, but with a distance that is considerable, appear the states of Mato Grosso do Sul and Goiás, both with 3.6% of the volume produced in the country [54 thousand tons each] Among the main production poles, a highlight got the cities of Barreiras (BA) and Primavera do Leste (MT).

COTTON PRODUCTION IN BRAZIL/MAIN STATES



COTTON	YEAR (2014/2015)	%
NATIONAL PRODUCTION	1.505	100.0
MAIN PRODUCING STATES		
MATO GROSSO	865	57.4
BAHIA	434	28.8
MATO GROSSO DO SUL	54	3.6
GOIÁS	54	3.6
TOTAL	1.406	93.4

Source: Conab

According to Mapa estimates, Brazilian cotton production should reach 2.2 million tons in 2024/25, an expansion that would correspond to a growth rate of 3.6% per annum during the projection period and a variation of 43.1% in production. Forecasts from a study carried out by the Organization for Economic Cooperation and Development (OECD) in partnership with the UN Food and Agriculture Organization (FAO), follow the same lines, indicating that Brazil should attain a cotton harvest of 2.3 million tons in 2024/25, with an annual growth rate of 4.6%.

In its turn, cotton consumption in Brazil should not grow in the ten coming years and remain at 838 thousand tons. According to the OECD-FAO, this scenario should underscore imports in the international Market for a growth in the sector in coming years.

Exports have a forecast for strong expansion in the next decade, with an expected growth of 58.4% between 2014/15 to 2024/25.

This variation corresponds to an annual advance of 4.5%. In 2024/2025, cotton coming from Brazil should represent around 14% of the products´ world trade, according to estimates from the United States Department of Agriculture (USDA). The International Cotton Consultative Committee (Icac) forecasts an increase of around 2% a year in the product demand worldwide up to 2020.

BIOTECHNOLOGY AS A LEVER FOR PRODUCTIVITY

With a productivity index of around 60% higher as that verified in the United States, Brazilian cotton production is streamlined and state-of-the-art, with mechanized crops, intensive use of technology and efficient management techniques. To remain competitive in the world scenario, Brazilian cotton crops soon will count upon some novelties, among which are seeds and cultivars. This is what the Executive Director for research and development at Embrapa, Ladislau Martin Neto, emphasized at a recent conference at the Brazilian Cotton Conference held this month of September in Foz do Iguaçu (PR).

According to Ladislau Neto, Embrapa is at advanced stages in the creation of a research platform geared to GMO cotton cultivars, with an initial focus on resistance to the cotton boolweevil pest.

According to the Embrapa director, efforts in genetic breeding are oriented to the development of new cultivars with better fiber, shorter maturation time and resistance and tolerance to adverse factors. “For 2017, the launch of GMO or transgenic cultivars has been foreseen for resistance to nematodes or roundworms and caterpillars”.

BRAZILIAN COTTON MAKES STRIDES IN QUALITY, BUT CAN IMPROVE EVEN FURTHER

Brazil has made a leap in the quality of its cotton production, however, there are some important enhancements to be made for the country to increase its share both in the domestic and foreign market.

The cotton fiber quality and that of its characteristics, such as length, resistance, maturity and elongation or stretch are fundamental to ensure this raw material becomes desirable for textile industries and to become well positioned in the world market, effectively facing competition of synthetic fibers.

According to the Abrapa Vice-President, Arlindo Moura, the average quality of national production is good, but there are aspects that need improvement, especially as regards items such as uniformity and the rate of short fibers. “Brazil is acknowledged for honoring its contracts. We now need to enhance our image among clients in terms of quality.”

In the evaluation of Celestino Zanella, from Abapa (Bahian Association of Cotton Producers), the lack of standardization in Brazilian cotton hampers the relationship with clients, as they want the same fiber they purchased the previous year and are not always able to receive that.

“The resistance of our fiber is good, however, variations within the same batch are significant and that is of considerable importance for textile industries”, emphasizes Antônio Esteve, director of Anea. According to Eleusio Freire, from Cotton Consultoria, the product certification through representative and reliable systems in the sector is a positive aspect in domestic cotton production. “The Brazilian fiber presents sustainability requirements and is monitored weekly.”

STRONG COMPETITION FROM SYNTHETIC FIBERS

INVESTING IN QUALITY IS THE PATH TOWARDS COTTON COMPETITIVENESS

In 50 years, the cotton share in the world market for fibers has dropped from 70% to almost 30% currently. This is what Eric Hequet, from Texas Tech University, underscored at a world reference in the sector, at the Brazilian Cotton Congress held in September.

To maintain this 30% share and to once again observe a growth in consumption, the professor suggests that producers invest in new technologies and tools for the measurement of quality in this commodity. “We have to be attentive to the figures for market share and the quality issue. The sector changes very rapidly and if we are not careful, in a decade cotton might become a niche market, watching its share drop even further.”

According to the expert, synthetic fibers, such as polyester, besides having more affordable prices, can have their diameter and length conceived exactly as desired, differently from cotton, and because of that, many industries prefer to use the former.

To be able to compete with such materials therefore, it is necessary to further improve cotton attributes. Among these, Hequet emphasizes the fiber elongation. “The contribution of the stretching of the fiber is fundamental for performance, during cotton processing. If the fiber has a low level of stretch or elongation, although it is strong, it will not present good performance, it will be a brittle fiber.”

CAMPAIGN TO FOSTER COTTON

THE OBJECTIVE IS TO SHOW HOW IMPORTANT NATURAL FIBERS ARE FOR THE INDUSTRY AND FOR CONSUMERS

Faced with the challenges of fostering cotton consumption in the domestic market, with reflexes on exports as well, Abrapa launched a marketing campaign aimed at underscoring the importance of natural fibers in the textile industry and among consumers.

To gain a better understanding of why cotton has lost its visibility and notoriety, Abrapa, in partnership with a multinational from the agricultural commodities sector commissioned a qualitative survey among Brazilian consumers.

The survey verified that the fiber has broad acceptance in the bed, bath and garment sector, and among men who are over 40 years of age. Nevertheless, there is little relevance for it among women and younger people.

“Through this initiative geared to the long term, we want to show the quality of our cotton, the comfort”, states the President of Abrapa, João Carlos Jacobsen, who adds: “with this effort, we also hope that the textile industry will once again covet cotton and use less synthetic products”.

Among the campaign slogans, those that stand out “And if people used more cotton?”, “And if cotton were more present in fashion?”, and “And if cotton were a trend?”, among others.

THE MAIN BRAZILIAN COTTON EXPORTERS

- ADM do Brasil
- Agropecuária Maggi
- Cargill Agrícola
- CGG Trading S.A
- Empresa Interagrícola (EcomTrading)
- Glencore
- Libero Commodities Brasil
- Louis Dreyfus Commodities
- Multigrain S.A.
- Noble Grain
- Omnicotton Agri Comercial
- Queensland Cotton/ Olam
- SLC Agrícol

Source: ANEA

MONEY THAT COMES FROM TREES

BRAZIL IS A WORLD REFERENCE IN PLANTED FORESTS FOR INDUSTRIAL PURPOSES

In the last years, Brazil has made noteworthy progress in the segment of planted forests, especially because of the efficiency gains in technology and management. With an occupied area of only 7.74 million hectares, or 0.9% of the national territory, the Brazilian sector of planted forests is responsible for 91% of all of the wood produced for industrial purposes in the country, with the remaining 9% coming from legally managed forests, as informs the main entity for the segment, Ibá (Brazilian Tree Industry).

This lumber is destined mainly for the production of pulp, several types of paper, wood panels, furniture, vegetable coal and other biomasses for energy purposes, among many other products.

According to the Ibá, from the total area of planted trees, the cultivation of eucalyptus occupies 5.56 million hectares, which represents 71.9% of the total, and is located mainly in the states of Minas Gerais (25.2%), São Paulo (17.6%) and Mato Grosso do Sul (14.5%). The plantation of pine trees occupies 1.59 million hectares with a concentration in Paraná (42.4%) and in Santa Catarina (34.1%). In a smaller volume, acacia, teak, rubber trees and paricá trees are among the other species that are planted in the country.

Additionally, of the 7.74 million hectares of cultivated trees, 63% are certified by independent organizations, such as the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification Schemes (PEFC), the latter represented In Brazil by the National Program for Forest Certification (Programa Nacional de Certificação Florestal-Cerflor). The certification stamps are a guarantee, acknowledged internationally, that make it possible to identify the origin of raw material, as well as attest that the production process of the industrial goods contemplate restrictive and specific practices regarding the several aspects linked to natural resources, environmental services and engagement with communities.

“Brazil is a world reference in the cultivation of trees for industrial purposes. Destined to the production of wood panels, laminated flooring, pulp, paper, biomass, items present in our homes and daily activities. We should be proud of that”, states Elizabeth de Carvalhaes, Executive-President of Ibá.

PRODUCTIVITY

In 2014, Brazil once again held its leading position in the global ranking of forestry productivity. The mean productivity of the Brazilian eucalyptus plantations reached 39 m^3/ha a year, and the productivity of pinus plantation was of 31 m^3/ha a year.

Historically the productive sector of planted forests prioritized maintaining investments in research and development, primordially in the search for genetic improvements of plantations and of forest management techniques.

The best example of the success of this strategy was the impressive development of the productivity of eucalyptus in Brazil – 5.7% a year during the period of 1970 to 2008 – comparatively with the 2.6% for Latin America, 0.9% for developed countries and 1.9% for the group of developing countries.

ECONOMIC WEIGHT

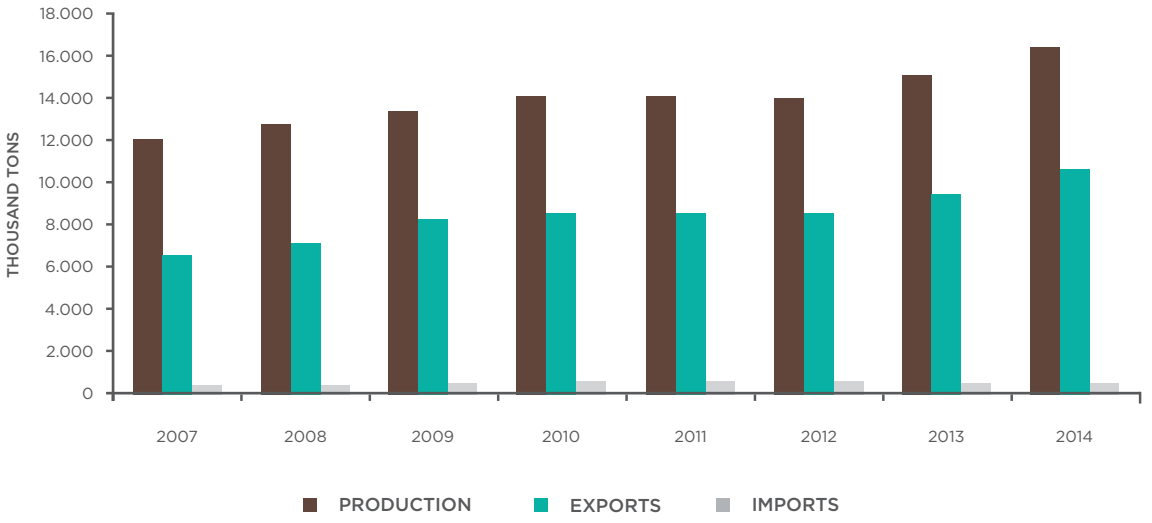
The Gross Domestic Product (GDP) of the Brazilian sector of planted trees grew 1.7% in 2014, being that the expansion in exports volume for pulp (12.6%) played an important role in this performance. Added to this is the fact that Brazil is also an important supplier of paper for countries in Latin America, the European Union and North America.

Albeit modest, if compared to the historical growth of the sector (3.8% a year), the expansion in the Brazilian sector of planted trees in 2014 is exceptional vis-a-vis the cattle raising and agricultural performance (0.4%), industry (-1.2%) and the service sector (0.7%). The growth, 17 fold greater than that of the Brazilian GDP (0.1%) is proof of how important this sector truly is for the domestic economy.

The planted trees sector share in the Brazilian GDP has grown year after year and ended 2014 representing 1.1% of all of the wealth generated in the Country and 5.5% of the industrial GDP. According to data from the Ministry of Agriculture, Livestock and Supply (Mapa), forestry products represent the fourth position in the value ranking of exports for national agribusiness, below only the soy complex, the meat segment and the sugar and energy sector.

In 2014, the exports value of forestry products was of U$ 9.95 billion, representing about 10% of the total Brazilian agribusiness exports last year. “It is a gigantic sector that generates approximately 4.4 million jobs, and has the potential to grow even further”, highlights the general coordinator of Livestock and Permanent Crops of the Mapa, João Antônio Fagundes Salomão, responsible for the Sectoral Chamber of the Planted Forests Chain from the Ministry.

PULP

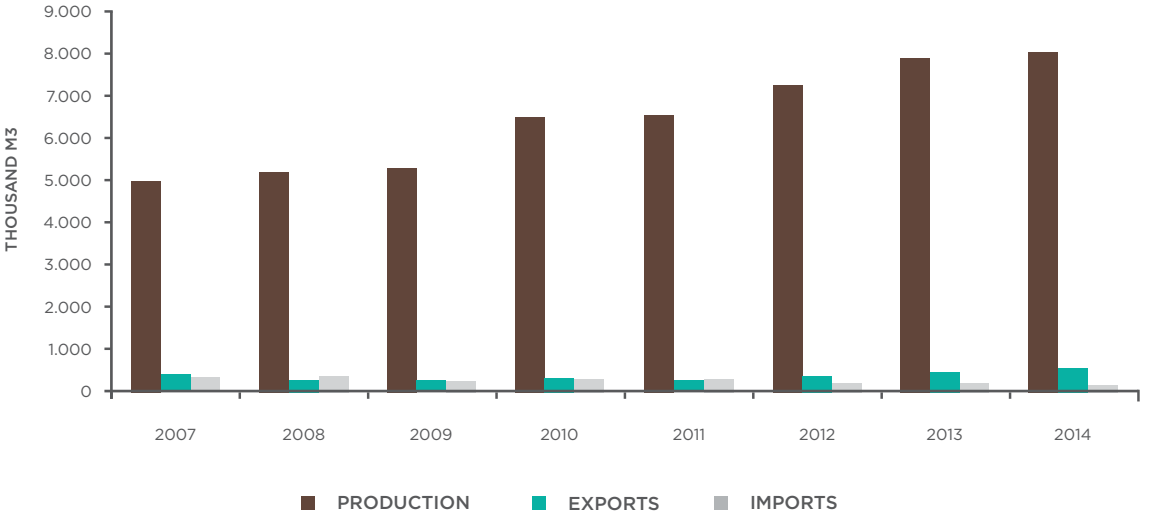


Source: Ibá

PAPER

Source: Ibá

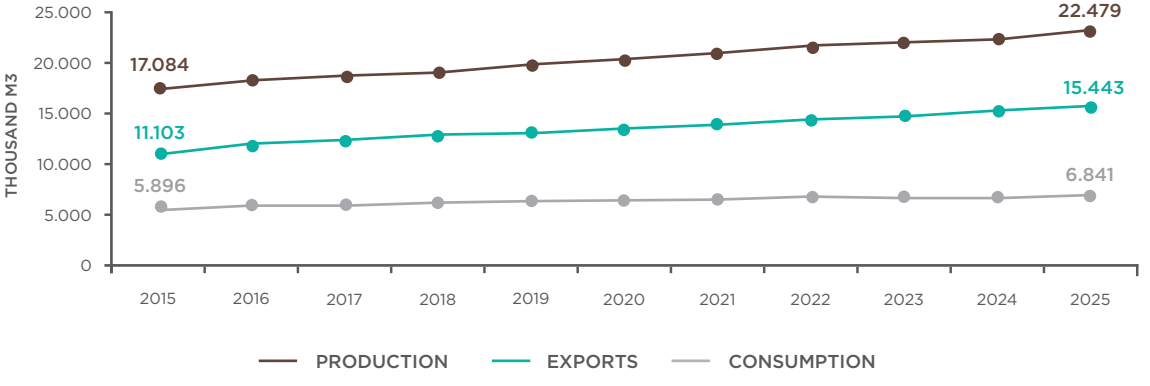
WOOD PANELS



Source: Ibá

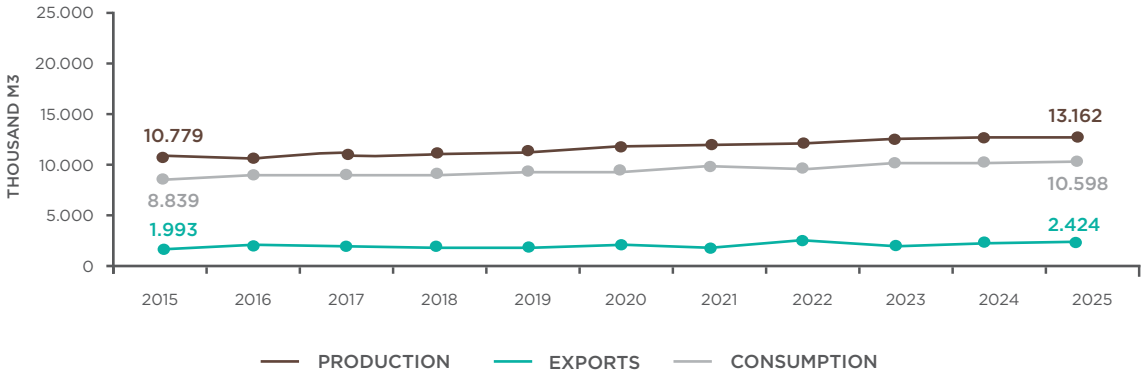
In accordance to the Mapa projections, the Brazilian paper production should increase 22.1% and that of pulp 31.6% in the coming decade. Paper consumption (+19.9%) in its turn should grow more than that of pulp (+16%). Furthermore, still according to Mapa estimates, due to the characteristics of this activity, pulp exports should grow by 39.1% and those of paper by 21.7% in the period between 2015 and 2025.

PULP PRODUCTION, CONSUMPTION AND EXPORTS



Source: AGE/MAPA and SGE/Embrapa

PAPER PRODUCTION, CONSUMPTION AND EXPORTS



Source: AGE/MAPA and SGE/Embrapa

Even with the increment of external sales, the domestic market will continue to be the main destination for paper production, absorbing about 80% of whatever is produced. When it comes to pulp, the ratio is inverted, with 80% of production geared to exports, and 20% destined to supplying the domestic market. To fulfill the growth forecasts, Ibá highlights the new investments in plantations and the construction and expansion of plants that should reach R$ 53 billion up to 2020.

ENVIRONMENTAL ASSET

Much beyond its economic relevance, the Brazilian sector of planted trees also offers a great contribution to the struggle against climate changes. This environmental asset of the segment arises from the formation and maintenance of carbon stocks of the planted trees and native trees preserved by the main companies in the chain of production.

In 2014, according to Ibá statistics, the 7.74 million hectares of planted trees in Brazil were responsible for a stock of approximately 1.69 billion tons of carbon dioxide (tCO2), representing an increase of 1.2% when compared to 2013.

The carbon stock for the sector is the result of plantation cycles for planted trees. Every year, trees are harvested and planted, characterizing a process that is renewable and allowing the carbon stock to be perennial through time.

For each hectare planted by the planted trees producing companies, for industrial purposes, 0.65 hectare is destined to conservation, a ratio that goes beyond what is demanded by the Brazilian Forestry Code.

Besides the carbon from the planted trees, the sector further stocks about 2.40 billion tons of CO2 in Areas of Permanent Preservation (APPs), in Legal Reserve areas ("RL" in the Portuguese acronym) and in Private Reserves for Natural Heritage (RPPNs in the Portuguese acronym).

Additionally, the products that originate from planted trees can also replace the use of fossil raw material. A good example is the steel industry that replaces mineral coke with renewable vegetable coal in the process for the reduction of iron-ore and other metals.

In a regressive countdown for COP21 (United Nations Conference) that should establish at the end of the year, in Paris (FR), a new worldwide climate agreement, Elizabeth emphasizes that it is fundamental to expand the debate on the importance of planted forests and native forests in these negotiations.

The planted forest industry in Brazil, alone, is responsible for a stock of 1.67 billion tons of CO2 equivalent – measure used to compare the emission of several greenhouse gases, based on their potential for global warming. "The planted trees industry will play an important role in Brazil´s negotiations for a climate agreement", points out the Executive President from Ibá.

EXPORTS FROM THE SECTOR GROW IN VOLUME DURING THE FIRST SEMESTER

AS REGARDS REVENUES, THE INVOICING REMAINED AT THE SAME LEVELS AS THOSE RECORDED IN THE SAME PERIOD OF 2014

During the first semester of 2015, the volume of Brazilian pulp exports totaled 5.5 million tons, a growth of 7.1% vis-a-vis the same period in 2014, signals the bulletin “Cenarios Ibá”, the official publication of the Brazilian Tree Industry.

Regarding the wood panel segment, the volume exported by Brazil in the first six months of the year added up to 289 thousand m^3, a growth of around 48.2% compared to the same period last year.

Brazilian paper exports reached 987 thousand tons from January to June 2015, a growth of 3.9% vis-a-vis the same period in 2014.

Revenues arising from these external sales in these three main products for the Brazilian sector of planted forests totaled US$ 3.6 billion, and maintained the same levels compared to the first semester of last year. The trade balance for the segment in the first six months of the year was of US$ 2.9 billion, a hike of 6% in the comparison with the same period in 2014.

In its turn, Brazilian pulp production attained 8.2 million tons, a rise of 3.5% compared to the volumes in the same period of 2014. Those of paper remained practically stable from January to June of 2015, reaching 5.1 million tons.

NEW BRAZILIAN ENVIRONMENTAL LAW IS AN OPPORTUNITY FOR PLANTED FORESTS

ESTIMATES POINT TO THE FACT THAT RURAL PRODUCERS SHOULD REFOREST AROUND 12 MILLION HECTARES

With the new Brazilian Forestry Code, approved in 2012, rural owners should reserve part of their land to maintain the natural forests distributed throughout the margins of rivers and water courses, the top of hills and areas that are important for conservation.

According to the Agriculture Minister, Kátia Abreu, the reforestation foreseen by the new law can be transformed into an opportunity for rural producers.

According to the Minister, rural producers are adaptations to the new provisions of the Code, and will be able to comply with the goal for the reforestation of 12 million hectares.

“I have questioned rural producers: is reforestation a punishment or an opportunity? I would like to guarantee that this reforestation can and should be turned into an opportunity. We are going to create a new tropical forestry industry, and Brazil can be one of the greatest in the world in this field”, states Kátia.

For the Minister, it is necessary to expand financing for the cultivation of forests, through the Low Carbon Agriculture Plan (ABC Plan), that foresees, besides the reforestation, a regeneration of pastures and other actions. The Brazilian Agricultural and Livestock Plan (Plano Agrícola e Pecuário Brasileiro) 2015/16 has earmarked R$ 3 billion for the ABC.

THE MAIN BRAZILIAN PAPER AND PULP EXPORTERS

1. **Suzano**

   SUZANO MI USD 1,049 IN EXPORTS

2. **Fibria-SP**

   FIBRIA-SP MI USD 1.281 IN EXPORTS

3. **Eldorado**

   ELDORADO MI USD 539 IN EXPORTS

4. **Cenibra**

   CENIBRA MI USD 481 IN EXPORTS

5. **Klabin**

   KLABIN MI USD 386.2 IN EXPORTS

6. **Fibria-MS**

   FIBRIA-MS MI USD 316 IN EXPORTS

7. **Berneck**

   BERNECK MI USD 73.7 IN EXPORTS

8. **Eucatex**

   EUCATEX MI USD 24.8 IN EXPORTS

9. **Arauco**

   ARAUCO MI USD 22 IN EXPORTS

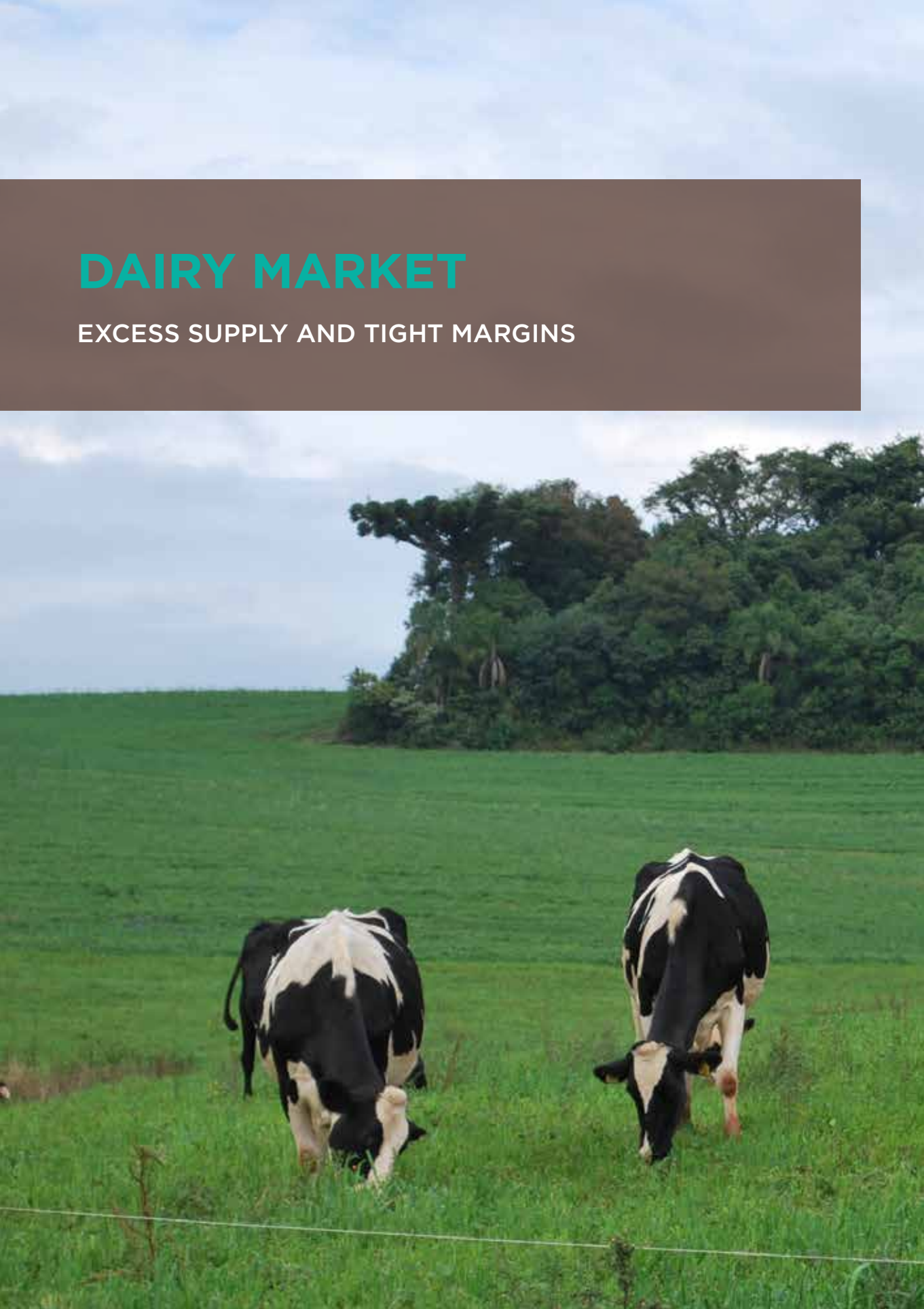
10. **Veracel**

    VERACEL NOT AVAILABLE

Source: The Largest and the Best from Exame Magazine– Edition 2015

DAIRY MARKET

EXCESS SUPPLY AND TIGHT MARGINS



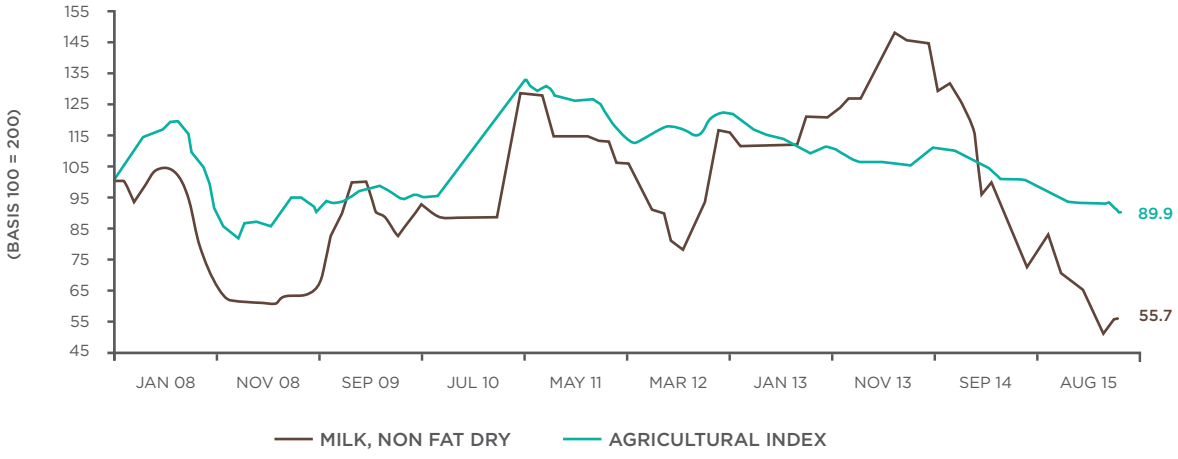
Supersizing of Chinese consumption and the conflicts between Russia and the European Union have flooded the international dairy market. Albeit having a projection for inventory corrections already in 2015, there is no sign of reaction from prices. Although they are not part of the dairy trade flows, Brazilian shipments to its main buyers should come up against a less favorable scenario. For the producer, the best strategy is to place bets on greater efficiency through management and by incorporating technology, however, market conditions may make these costs associated to such advances prohibitive. The drop in grain prices may become a way out for dairy livestock.

WORLD MARKET: EXCESS SUPPLY

As with all commodities, be they from agriculture and livestock, minerals, metals or energy, powder milk prices, the main type of milk traded in the international market, have recorded historical peaks in the last few years. Since the first semester of 2014, the price of this milk has accompanied a strong drop in prices of almost all of the agribusiness products- meat being the main exception. Besides the dollar appreciation, there are three top reasons on the part of fundamentals that can explain the drop in powder milk prices:

- a reduction in milk and milk by-products imports by China;
- a reduction in Russian imports of European dairy products as a sanction applied by the European Union; and
- the consequent high world inventories.

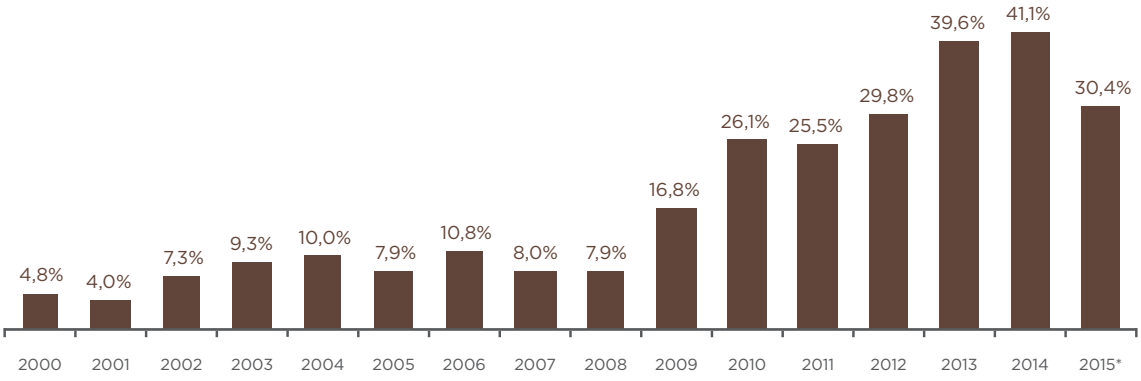
PRICE EVOLUTION FOR MILK AND AGRICULTURAL COMMODITIES (BASE 100 = JANUARY 2008)



Source: CME Group and World Bank

Powder milk production worldwide is strongly concentrated on four producers (European Union, New Zealand, China and the United States); according to USDA forecasts, in 2015, these four producers should account for more than 70% of the world supply as a whole. Albeit being one the largest powder milk producers on the planet, China is at the same time the largest buyer of this product in the international market. In 2015, the Chinese should acquire at least 30% of all of the dry milk traded in the world.

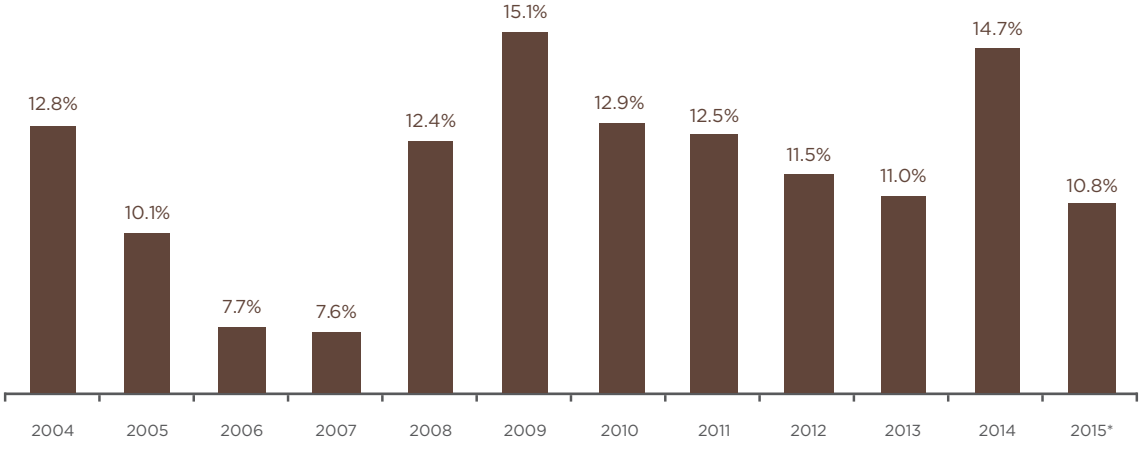
SHARE OF CHINESE PURCHASES IN THE WORLD TRADE OF POWDER MILK



Source: USDA / * PROJECTION

The figure mentioned previously draws attention, and the Chinese share in world imports for powder milk has already been higher, between 2013 and 2014, China was the destination for approximately 40% of all of the dry milk traded in the international market. The strong shrinkage observed in 2015 is the result of the oversizing of demand made by producers regarding the total demand in this market. Large companies in the sector made substantial investments imagining a consumption boom in the Chinese market. Besides overestimating Chinese consumption, there were also problems in supply. With the drop in grain prices used in the feed applied to confinement, Chinese producers that were outside the market were stimulated to return to their activity, as a way of improving margins. Consequently, since that time, inventories have increased significantly.

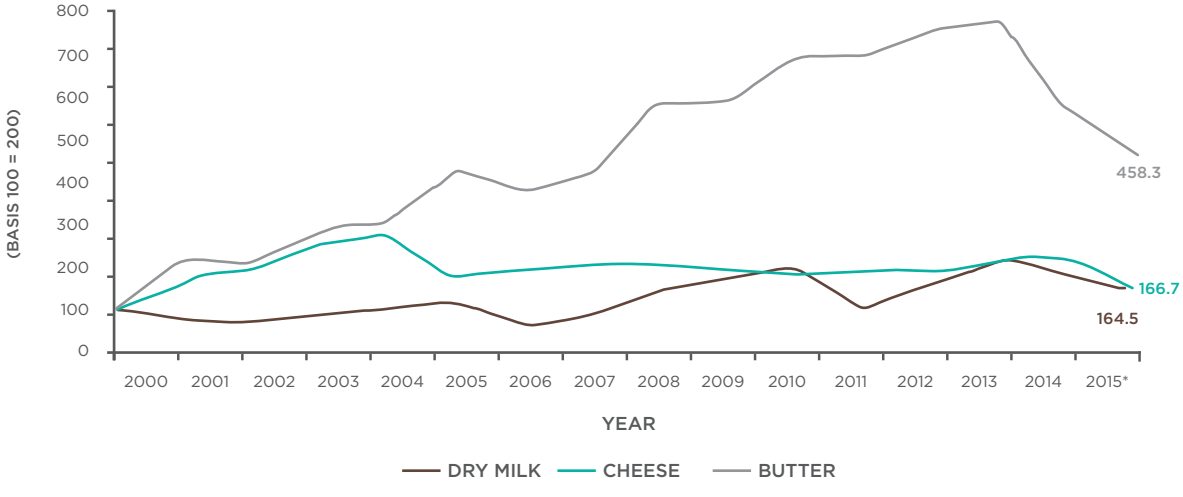
RATIO OF WORLD INVENTORIES/TOTAL DEMAND FOR DRY MILK



Source: USDA / * PROJECTION.

To exacerbate the situation even further, European sanctions on Russia, a large buyer of dairy products in the international market, has, as a response, the suspension of Russian purchases of European dairy products, flooding the market even more and pushing prices down. The Russian response was not restricted to the purchase of powder milk; it also impacted purchases of butter and cheese coming from the European Union, the largest cheese exporter and the second largest in butter, only behind New Zealand.

RUSSIAN POWDER MILK IMPORTS, CHEESE AND BUTTER (BASE 100 = 2000)



Source: USDA / * PROJECTION.

Although Brazil is one of the top producers of in natura milk- according to the USDA projections for 2015, the fifth largest, its´ share in the international market is quite limited. On the one hand, contractions in Chinese imports have barely affected Brazilian producers – New Zealand, as it is a large supplier for the Chinese, and was the country that felt most of the impact. On the other hand, Brazil also underwent a slowdown due to political and economic problems in its main buying markets, which are Cuba, Angola, Saudi Arabia and Venezuela. In this scenario, what merits special attention is the drop in oil prices and impact on the import capacity of these countries. Finally, although Brazil is the third largest cheese producer in the world, behind only the European Union and the United States, its share in international trade is practically residual. In the butter market, Brazil´s share is negligible, in production as well.

MAIN WORLD PRODUCERS OF IN NATURA MILK (2015 PROJECTIONS)

RANK	PRODUCER	SHARE
1	EUROPEAN UNION	26.2%
2	INDIA	25.3%
3	UNITED STATES	16.3%
4	CHINA	6.7%
5	BRAZIL	5.9%
6	RUSSIA	5.1%
7	NEW ZEALAND	3.7%
8	MEXICO	2.0%
9	UKRAINE	2.0%
10	ARGENTINA	1.8%
WORLD (MITON)		579.6

Source: International Dairy Federation (IDF), Rabobank and IFCN, 2014

TOP 20 DAIRY COMPANIES IN THE WORLD

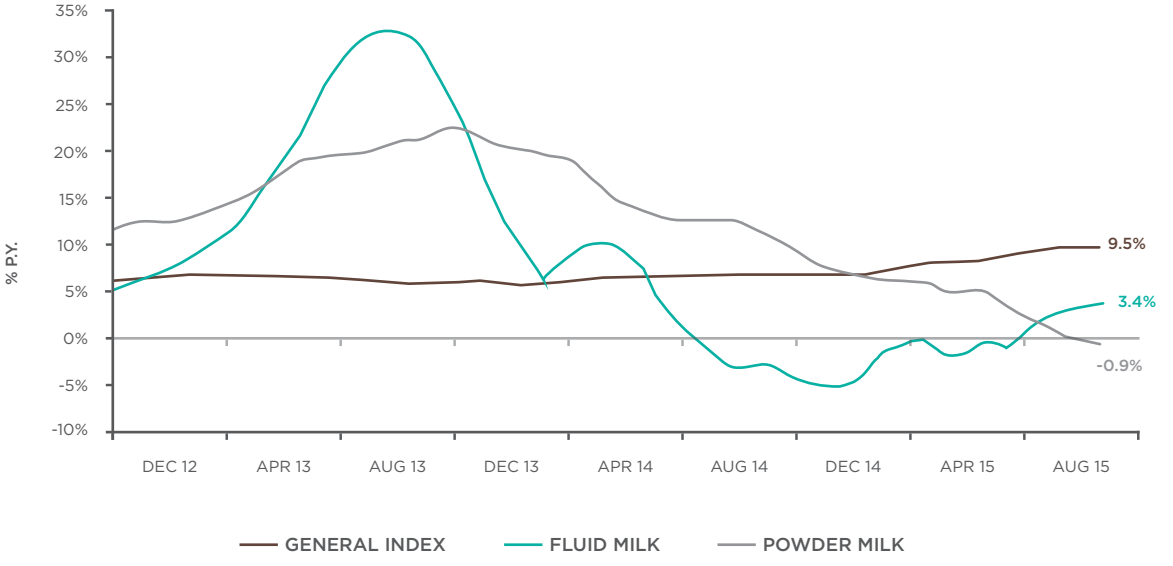
RANK	COMPANY	COUNTRY	REVENUES IN 2013 (USD BI)
1	NESTLÉ	Switzerland	28.3
2	DANONE	France	20.2
3	LACTALIS	France	19.4
4	FONTERRA	New Zealand	15.3
5	FRIESLANDCAMPINA	Netherlands	14.9
6	DAIRY FARMERS OF AMERICA	USA	14.8
7	ARLA FOODS	Denmark/Sweden	12.5
8	SAPUTO	Canada	8.8
9	DEAN FOODS	USA	8.6
10	YILI	China	7.6
11	UNILEVER*	Netherlands/UK	7.5
12	MEIJI	Japan	7.4
13	DMK	Germany	7.1
14	MENGNIU	China	7.0
15	SODIAAL	France	6.6
16	BONGRAIN	France	5.9
17	KRAFT FOODS	USA	5.8
18	MÜLLER*	Germany	5.0
19	SCHREIBER FOODS*	USA	5.0
20	MORINAGA MILK INDUSTRY	Japan	4.8

Source: International Dairy Federation (IDF), Rabobank and IFCN, 2014

BRAZILIAN DOMESTIC MARKET

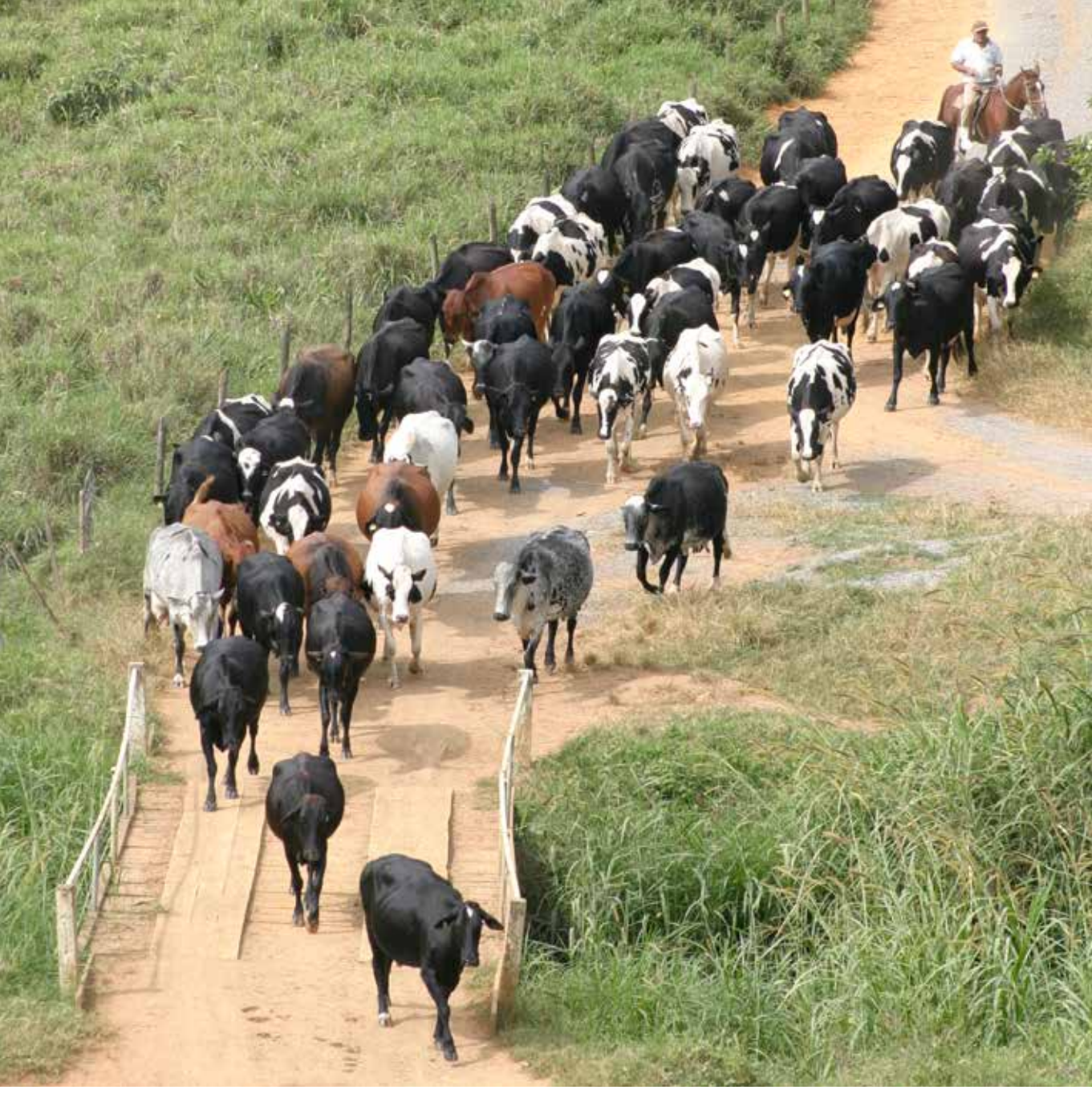
Although milk does not have as well-developed international market with different markets connected by an international exchange, Brazilian domestic prices presented a behavior similar to those of international market quotations. Powder milk prices, as well as fluid long-life milk increased considerably in 2013, a reflex of the increase in costs associated to feed and calf breeding, however, since 2014, they have plummeted.

IN NATURA AND POWDER MILK PRICE EVOLUTION IN BRAZIL, IN COMPARISON WITH THE OTHER PRICES IN ECONOMY 12 MONTHS MOVING AVERAGE)



Source: USDA

The increase in the average yield of Brazilian labor and the consequent warming up of the domestic market attracted great players in the domestic market. For example, in 2014, the French Lactalis, that holds control over Parmalat, acquired the BRF dairy division, which in its turn, controls brands such as Batavo and Elegê. This concentration process tends to increase competition in the industrial phase of the dairy chain, which could represent an enhancement in returns for dairy cattle. Unfortunately, it is not clear whether this process will materialize, due to the economic crisis and the drop in internal consumption.



For dairy producers, the drop in grain prices should cut down on their production costs, maintaining their margins, and albeit marginally, their production. Additionally, the effects of this dynamic are still not very clear: if the reduction in production costs (feed) will suffice to maintain producers´ margins faced with expansion of supply and a contraction in the main international markets for domestic milk. However, the structural solution for the sector depends on improving efficiency, adopting, for example, greater pasture intensification, increasing silage quality, enhancing management and using more sophisticated grazing techniques.

INTENSIFICATION AND REINFORCING SILAGE QUALITY: TECHNOLOGIES TO ENHANCE PRODUCTIVITY

Increasing efficiency is a strategy than can improve margins for dairy cattle in a structural way. As part of the series of potential measures, what stands out are pasture intensification and greater silage quality, which in turn, depend on advances in maize production. In dairy cattle, the adoption of intensive grazing could significantly increase production of a farm through:

- correction and fertilization programs of pasture soils, which is something negligible in Brazil;
- adoption of rotation grazing, fostering a better use of grasslands and incentivizing the recovery of forage adopted, preventing pasture degradation;
- a blend of the two previous measures will increase the carrying capacity (or stocking rate)[1] and animal productivity.

Despite these advantages, intensification implies a set of difficult challenges for producers. For example, an increase in the carrying capacity resulting from the use of fertilizers implies additional costs with the purchase or more animal supplements and vaccines. This increased capex volume could even demand greater investments in infrastructure to allow for more efficient management of pastures. Through this, due to the longer return on capital investment, it is common to observe not very positive cash flows or even negative ones in the first few years after the project implementation. This panorama could scare off the less efficient producers with deficient management.

Besides pasture intensification, what merits mention are the gains in dairy cattle arising from productivity gains in maize production and enhancements in grain quality. The Bt technology, a variety of genetically modified maize, besides enhancing productivity, improves the maize fodder quality for silage, as it reduces the incidence of pests. Due to a lower pest incidence, less pesticides are used, making silage cheaper and of better quality – quality herein meaning a low incidence of toxins resulting from the damage caused by caterpillars or worms, that also help to reduce the use of medication, improve animal performance and cut down on production costs.

[1] Carrying capacity is the average number of animals that a pasture can support for a season. Stocking rate is the number of animals on a pasture for a specified time period and is usually expressed in Animal Unit per area.

ADDITIONAL TABLES

THE TOP TEN IN FLUID MILK PRODUCERS IN THE WORLD (2015 PROJECTION – MI TONS)

RANK	PRODUCER	2015
1	EUROPEAN UNION	151.8
2	INDIA	146.5
3	UNITED STATES	94.7
4	CHINA	39.1
5	BRAZIL	34.3
6	RUSSIA	29.5
7	NEW ZEALAND	21.7
8	MEXICO	11.8
9	UKRAINE	11.5
10	ARGENTINA	10.7
WORLD		579.6

Source: USDA

THE TOP TEN WORLD POWDER MILK PRODUCERS (2015 PROJECTION– MI TONS)

RANK	PRODUCER	2015
1	EUROPEAN UNION	2.3
2	NEW ZEALAND	1.8
3	CHINA	1.4
4	UNITED STATES	1.1
5	BRAZIL	0.8
6	INDIA	0.5
7	AUSTRALIA	0.3
8	ARGENTINA	0.3
9	MEXICO	0.2
10	JAPAN	0.1
WORLD		9.2

Source: USDA

THE TEN LARGEST POWDER MILK EXPORTERS IN THE WORLD (2015 PROJECTIONS – MI TONS)

RANK	PRODUCER	2015
1	NEW ZEALAND	1.76
2	EUROPEAN UNION	1.06
3	UNITED STATES	0.61
4	AUSTRALIA	0.22
5	ARGENTINA	0.15
6	INDIA	0.05
7	UKRAINE	0.03
8	CHILE	0.03
9	BRAZIL	0.02
10	CANADA	0.01
WORLD		3.95

Source: USDA

THE TEN LARGEST POWDER MILK IMPORTERS IN THE WORLD (2015 PROJECTION – MI TONS)

RANK	PRODUCER	2015
1	CHINA	0.60
2	ALGERIA	0.34
3	INDONESIA	0.28
4	MEXICO	0.24
5	RUSSIA	0.13
6	PHILIPPINES	0.12
7	BRAZIL	0.09
8	TAIWAN	0.07
9	JAPAN	0.05
10	SOUTH KOREA	0.02
WORLD		1.97

Source: USDA

THE TEN LARGEST CHEESE PRODUCERS WORLDWIDE (2015 PROJECTION – MI TONS)

RANK	PRODUCER	2015
1	EUROPEAN UNION	9.6
2	UNITED STATES	5.3
3	BRAZIL	0.8
4	RUSSIA	0.7
5	ARGENTINA	0.6
6	CANADA	0.4
7	NEW ZEALAND	0.3
8	AUSTRALIA	0.3
9	MEXICO	0.3
10	UKRAINE	0.1
WORLD		18.4

Source: USDA

THE TEN LARGEST BUTTER PRODUCERS WORLDWIDE (2015 PROJECTION– MI TONS)

RANK	PRODUCER	2015
1	INDIA	5.04
2	EUROPEAN UNION	2.29
3	UNITED STATES	0.85
4	NEW ZEALAND	0.57
5	RUSSIA	0.24
6	MEXICO	0.20
7	AUSTRALIA	0.12
8	UKRAINE	0.11
9	BRAZIL	0.10
10	CANADA	0.09
WORLD		9.69

Source: USDA

THE TWELVE LARGEST BRAZILIAN MILK PRODUCERS

1. **DPA Manufacturing Brasil**

   Nestlé, Sourcerra, DPA Brasil, DPA Nordeste e Nestlé Waters / Milk Production in 2013 (BI liters): 2.03

2. **BRF**

   Brasil Foods S.A. / Milk Production in 2013 (BI liters): 1.38

3. **Itambé**

   Milk Production in 2013 (BI liters): 1.06

4. **Laticínios Bela Vista**

   Milk Production in 2013 (BI liters): 0.08

5. **Castrolanda Cooperativa Agroindustrial e Batavo**

   Milk Production in 2013 (BI liters): 0.55

6. **Embaré Indústrias Alimentícias S.A.**

   Milk Production in 2013 (BI liters): 0.53

7. **Danone**

   Milk Production in 2013 (BI liters): 0.45

8. **Confepar Agro-industrial Cooperativa Central**

   Milk Production in 2013 (BI liters): 0.41

9. **Jussara**

   Milk Production in 2013 (BI liters): 0.03

10. **Vigor S.A.**

    Milk Production in 2013 (BI liters): 0.28

11. **Centroleite - Cooperativa Central de Laticínios de Goiás**

    Milk Production in 2013 (BI liters): 0.25

12. **Frimesa**

    Milk Production in 2013 (BI liters): 0.22

Source: Ministry of Agriculture, Livestock and Food Supply (MAPA).

SWEET AND COLORFUL

BRAZIL IS ONE OF THE LARGEST WORLD PRODUCERS OF FRUIT AND FLOWERS; WITH GOOD DOMESTIC CONSUMPTION IN BOTH SECTORS, THE CHALLENGE IS TO EXPAND EXPORTS

It is not only in the production of agricultural commodities [soybeans, coffee, maize, sugar, cotton, among others] that Brazil shows impressive results. In more specific agribusiness sectors, the Country is also doing well. This is the case, for example, of the fruit and flower segments, where Brazil is an important producer. With good domestic consumption in both sectors, the greatest challenge is to increase exports.

Comparative advantages such as extensive territory, propitious climate, adequate soils and a satisfactory water availability make Brazil one of the few countries with favorable conditions to produce different types of fruit all year round.

In the fruit segment, Brazil is the third largest producer and consumer, just behind giants such as China and India. According to the Brazilian Fruit Institute (Ibraf), annual production is of about 41.5 million tons, distributed by approximately 2.2 million hectares among the 30 large producing poles disseminated in all of the Country´s regions.

Fruit consumption in Brazil, in its turn, is at around 18 million tons. The activity generates, among direct and indirect jobs, around five million work positions.

As regards production, 53% of the fruit is destined to the "in natura" market and 47% to agro-industrialization, for the production of juices, pulp, compotes etc., in accordance to the Ibraf statistics.

MAIN FRUIT AND PRODUCING STATES

According to data from Abrafrutas (Brazilian Association of Exporting Producers of Fruit and By-Products), five states concentrate over 70% of the Brazilian fruit production. São Paulo is the leader, and accounts for more than 40% of domestic production, followed by Bahia (12%), Rio Grande do Sul (6%), Minas Gerais (6%) and Pará, with 3.7%. In 2014, the largest production was of oranges, with 14.8 million tons, followed by bananas, with 7.1 million tons.

Numbers from the Ministry of Agriculture, Livestock and Supply (Mapa) point out that bananas are the fruit with greatest geographic capillarity in the country, but that São Paulo and Bahia are the main producing states, with over 30% of the national production for the 2014/15 harvest.

Apples and grapes are concentrated in the South. Santa Catarina and Rio Grande do Sul are responsible for 95.8% of the national apple production. Grape production on the other hand is more fragmented, and is present, in order, in Rio Grande do Sul (57.2%), followed by Pernambuco (16%), São Paulo (10.2%) and Paraná (5.7%).

Melons, papaya and mango production are concentrated especially in the Northeastern region. Rio Grande do Norte and Ceará produce 82.5% of the national melon production; Bahia and Espírito Santo produce 71% of the papaya; and Bahia, São Paulo, Pernambuco and Minas Gerais were responsible for 85.8% of the mango harvest in 2014/15.

Projections drafted by Mapa, with estimates up to 2024/25, show that the greatest leaps in production should occur in melons, with an increment of 39.3% vis-à-vis the volume for the 2014/15 cycle; followed by papaya, with 31.2%; and by mangoes, with 25.9%.

EXPORTS

Most of the Brazilian fruit production is destined to the domestic market. The country´s share in world trade for the sector is still negligible, with less than 2% of exports, according to the Abrafrutas statistics.

Even with this timid expression, in international trade, Brazilian fruit production, mainly the one that counts with certification stamps for quality and international acceptance, already posts results that amount to some million dollars.

TRADE BALANCE

Source: IBRAF with SECEX/DATAFRUTA data

In the last five years, exports in the segment have fallen in the range between US$ 630 and US$ 650 million. As their main destination, shipments go to the European Union, especially Holland and the United Kingdom and the United States. Jointly, these markets absorb over 90% of Brazilian fruit exports.

THE TEN MAIN DESTINATIONS FOR THE EXPORT OF BRAZILIAN FRUIT IN 2014 (INCLUDING NUTS AND CHESTNUTS)

DESTINATION	VALUES (US$)	QUANTITY (KG)
HOLLAND	283.332.100	266.867.097
UNITED KINGDOM	137.165.964	123.046.835
UNITED STATES	96.983.738	42.334.183
SPAIN	73.395.646	87.600.423
PORTUGAL	25.751.173	19.325.496
CANADA	25.214.917	13.155.033
GERMANY	23.081.110	15.439.073
URUGUAY	16.799.457	35.839.519
FRANCE	16.323.015	11.801.648
ARGENTINA	16.078.381	25.003.741

Source: Ministry of Agriculture, Livestock and Supply (Mapa)

In terms of exporting regions, leadership belongs to the Northeast, reveals a study also from Abrafrutas. The largest exporter is Ceará, and from the ten greatest exporting states in terms of volume, four are from the Northeast (besides Ceará, there is Rio Grande do Norte, Bahia and Pernambuco), with a highlight for São Paulo, Rio Grande do Sul, Santa Catarina, Espírito Santo, Minas Gerais and Paraíba.

In 2014, Brazilian exports ended up in values higher than the historical averages, reaching US$ 841 million, according to the Mapa balance. The amount exported was of approximately 780 thousand tons. In volume, melons headed the shipments, with 196.8 thousand tons, according to the Ministry of Development, Industry and Foreign Trade (Mdic). Mangoes came as second runners, with exports of 133 thousand tons last year, followed by papaya, cashew nuts, grapes, lemons, apples, bananas, etc.

FRESH FRUIT EXPORTS 2014/2013

REGIONS	VARIATION (%)		2014		2013	
	VALUE (%)	VOLUME (%)	VALUE (%)	VOLUME (%)	VALUE (%)	VOLUME (%)
MELONS	-3,33	-5,34	142.661.763	181.195.440	147.579.929	191.412.600
MANGOES	4,15	7,00	153.606.926	130.551.856	147.481.604	122.009.290
FRESH BANANAS, EXCEPT PLANTAIN	1,48	-5,39	35.714.001	92.692.848	35.192.167	97.976.479
LEMONS	20,86	16,75	89.345.723	91.772.270	73.923.553	78.602.709
APPLES	-47,43	-46,16	33.090.838	45.995.705	62.941.935	85.429.045
GRAPES	-1,27	-0,97	101.683.575	42.761.729	102.994.687	43.180.556
WARERMELONS	0,52	-0,79	16.610.453	31.794.916	16.523.934	32.049.686
PAPAYA	7,60	7,83	44.979.175	30.796.765	41.803.057	28.561.452
ORANGES	2,51	4,55	10.217.149	24.263.561	9.966.726	23.208.179
AVOCADOS	33,88	27,46	9.281.942	5.497.600	6.933.265	4.313.307
PINEAPPLES	8,97	13,85	1.034.180	1.325.045	949.048	1.163.864
FIGS	3,70	-3,59	8.511.377	1.318.565	8.207.616	1.367.684
FRESH PLANTAIN	-8,51	-8,49	351.011	1.134.012	383.674	1.239.172
TANGERINES	1,59	4,29	718.635	665.721	707.363	638.330
OTHER DRIED FRUIT	-4,46	-9,23	877.253	289.525	918.251	318.978
CAQUIS OR PERSIMMON	59,25	24,33	769.710	257.044	483.334	206.741
GOIAVAS	7,74	8,44	424.160	156.087	393.685	143.945
COCONUTS	87,26	49,55	21.792	28.895	11.637	19.321
NECTARINES	-	-	19.968	22.464	-	-
PLUMS	98,07	83,82	20.774	3.180	10.488	1.730
MANGOSTEEN	-99,49	-99,90	595	25	117.398	24.829
OTHER CITRIC FRUIT	-80,24	-99,20	200	4	1.012	502
APRICOT	-100,00	-100,00			4.356	1.320
TOTAL	-1,15	-4,12	649.941.200	682.523.257	657.528.719	711.869.719

Source: IBRAF with SECEX/DATAFRUTA data

To boost fruit exports, the Brazilian Agency for the Promotion of Exports and Investments (Apex-Brazil) and Abrafrutas recently signed an agreement that encompasses 29 exporting companies.

With investments of around R$ 4.2 million, the efforts will focus on developing actions in commercial promotion, market positioning, training for exporting companies, business facilitation, among other activities.

FLOWERS AND ORNAMENTAL PLANTS

Brazil is one of the largest world producers of flowers and ornamental plants and records a domestic consumption of around R$ 26.68 per inhabitant. According to Ibraflor (Brazilian Flower Institute), the country cultivates over three thousand varieties of approximately 350 species among roses, carnations, lilies, chrysanthemums, orchids, bromelias, gerberas, violets, begonias, etc.

Founded commercially beginning in the 1950´s by Dutch immigrants (Holambra/SP), the Japanese (Atibaia/SP) and German and Polish immigrants (in Santa Catarina and Rio Grande do Sul), the flower sector and that of ornamental plants began to receive a strong thrust for growth notably in the last decade.

That means to say that professionalization and the dynamism of Brazilian floriculture are relatively recent phenomena. Nonetheless, the activity also counts with extremely significant figures.

According to Ibraflor, Brazil has around 8.2 thousand flowers and ornamental plant producers. The cultivated area is of around 14.9 thousand hectares, and is concentrated in the States of São Paulo, Minas Gerais, Rio de Janeiro, Espírito Santo, Santa Catarina and Rio Grande do Sul.

The average size of a rural property is of approximately 1.8 hectares. Producers are small predominantly and they have come together in cooperatives that make up the collective strength of the sector. According to a Sebrae survey, it is estimated that approximately 70% of the cultivated area is in the open air, between 28% and 30% in greenhouses and between 3% to 5% under the protection of screens.

Brazil has a large internal market and consumes practically everything it produces. More than 96.5% of the annual commercialization values refer to business carried out domestically. To market this production, the sector counts with approximately 60 wholesale centers and 21 thousand retail points of sales.

Additionally to that, there are over 30 fairs and exhibits held throughout the country, year in and year out. The main one is ExpoFlora, the largest flower exhibit in Latin America that takes place in the month of September in the city of Holambra (SP).

According to Renato Optiz, Chairman of the Sectoral Flowers and Ornamental Plants Chamber from the State of São Paulo, the sector offers an infinity of flower varieties, in all sizes and colors and packaging to service the most varied tastes, pockets and occasions. "Currently flowers can be found next door to consumers´ homes or ordered through the Internet. All of this is helping to popularize them."

Beginning four years ago, the segment invoicing for flowers and ornamental plants has been growing significantly: R$ 4.8 billion in 2012, R$ 5.2 billion in 2013, R$ 5.7 billion in 2014 and the growth forecast is of about 8% in 2015, totaling R$ 6.1 billion.

"The flowers market is an important lever for Brazilian economy, responsible for 215 thousand direct jobs", emphasizes Kees Schoenmaker, Chairman of Ibraflor. From the total number of work positions, 78 thousand (36.37%) refer to production, eight thousand (3.9%) to distribution, 120 thousand (55.87%) in the retail market and another eight thousand (3.8%) in other positions.

OPTIMISTIC COOPERATIVES

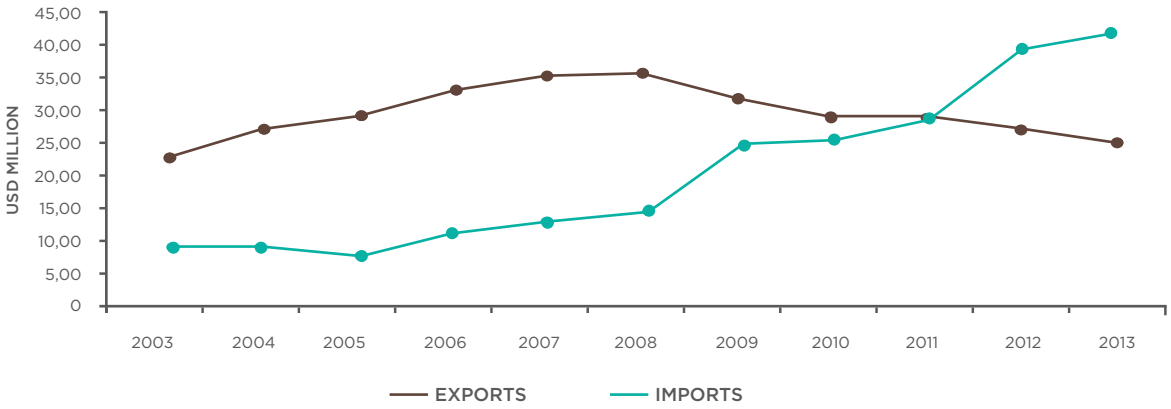
The two largest cooperatives for flowers in Holambra, the main producing pole, jointly account for 50% of the domestic flower market. The Veiling Cooperative hopes to invoice R$ 550 million in 2015, recording a growth between 8% and 12% vis-a-vis last year. Cooperflora estimates it will grow between 7% and 10%.

Veiling has approximately 360 associates and 500 clients that take part in the daily reverse auctions to supply flower wholesalers and retailers, as well as the main self-service networks. The cooperative stopped exporting six years ago to service the demand in the Brazilian market, although it makes exceptions merely for small buyers in Argentina, Paraguay and Uruguay. In its turn, Cooperflora, that encompasses 52 producers and services 400 clients, with a weekly production of two million stems, forecasts it will grow between 7% and 10%.

To make these estimates more concrete, flower and ornamental plant producers have made new investments in technology and management, among which in reservoirs to capture rain water, in more efficient and adequate irrigation systems, as well as in more streamlined infrastructure for the conditioning in greenhouses.

"I have been active in this market for 25 years and guarantee that this is not the first crisis the country has gone through. We have had worse crisis and consumers did not stop buying flowers. Thus, producers did not cross their arms to complain, but literally went into the field to warm up the market. The broad majority of them is reaping success because they were able to plan their investments in the medium and long terms. Those who invest this year will reap good fruit when the market stabilizes", foresees Optiz.

BRAZILIAN IMPORTS AND EXPORTS OF FPO (FLOWERS AND ORNAMENTAL PLANTS)

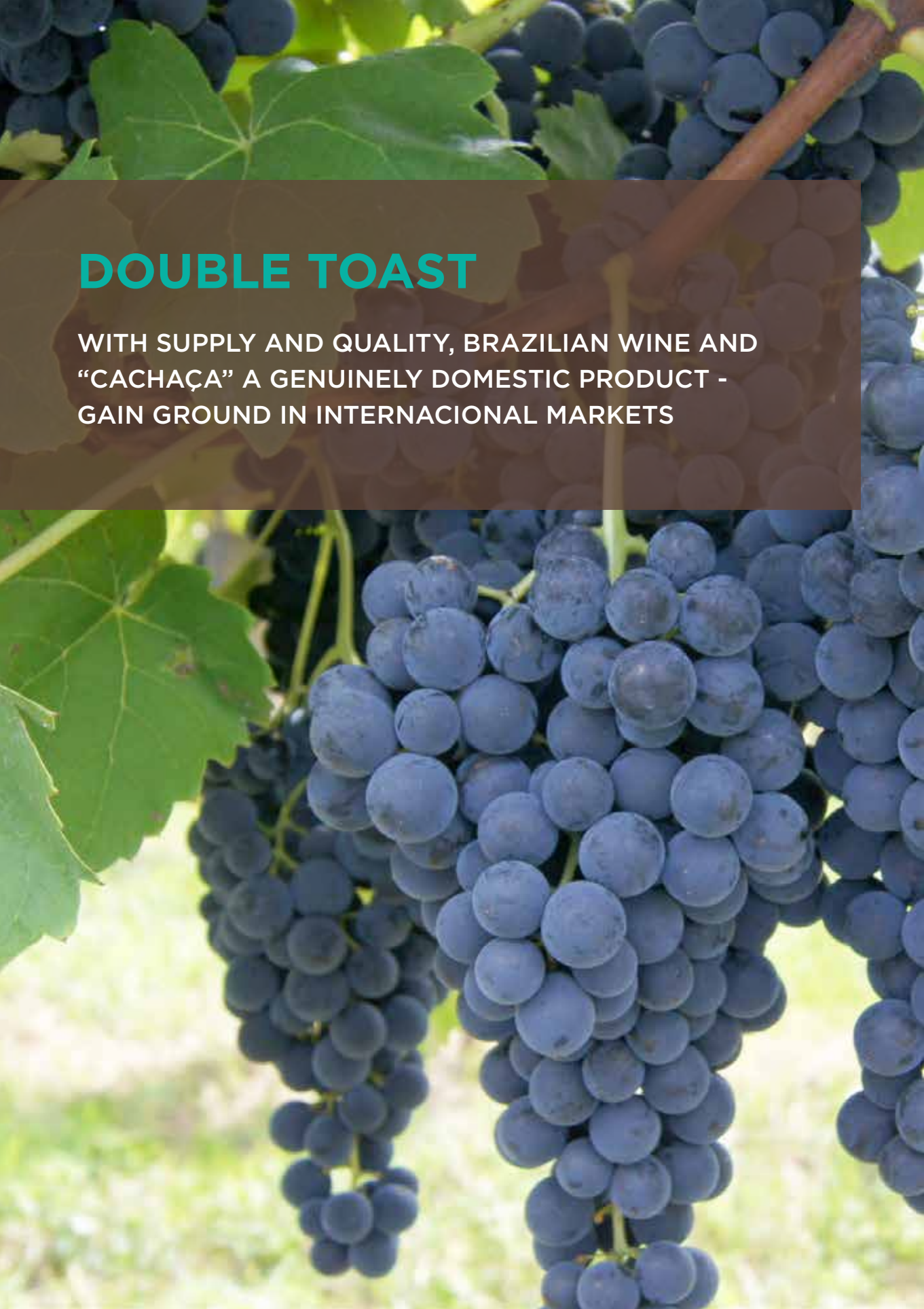


Source: Ibraflor

THE TEN LARGEST BRAZILIAN FRUIT EXPORTERS

1. Agrícola Famosa
2. Queiroz Galvão Alimentos
3. Agropecuária Schio Ltda.
4. Agrodan Agropecuária Roriz Dantas Ltda.
5. Special Fruit Importação e Exportação Ltda.
6. Vds Exports Ltda.
7. Expofrut Brasil Importadora e Exportadora Ltda.
8. Agrobras Agrícola Tropical do Brasil S/A
9. Agrivale Agricultura do Vale S/A
10. Itauiera Agropecuária S/A

Source: Associação Brasileira dos Produtores Exportadores de Frutas e Derivados – Abrafrutas.



DOUBLE TOAST

WITH SUPPLY AND QUALITY, BRAZILIAN WINE AND "CACHAÇA" A GENUINELY DOMESTIC PRODUCT - GAIN GROUND IN INTERNACIONAL MARKETS

With significant advance dedicated to the ever more judicious selection of raw material, with a focus on the quality and diversity of products, modern processing technology, as well as heavy marketing investments, Brazil has been at the forefront in the production and marketing of wines and cachaça. The latter, a spirit with the greatest green and yellow "DNA" and that, much like the original beverage from grapes, has been gaining ground in international markets.

To begin with wine, Brazil has consolidated itself, in the last few years, as the fifth largest producer of that beverage in the Southern Hemisphere, reaching the position of being one of the fastest growing markets in the world.

Currently, the vineyard production area in Brazil [grapes destined for the manufacture of wine] adds up to 83.7 thousand hectares, split mainly between six regions [see map]. According to Ibravin numbers (Brazilian Wine Institute), there are over 1.1 thousand vineyards spread throughout the country, with the majority installed in small properties (average of two hectares per family), giving a strong social connotation and relevance to this activity.

MAP OF THE MAIN WINE PRODUCING REGIONS IN BRAZIL

Source: Ibravin

When it comes to the variety of grapes dedicated to the production of Brazilian wines, among the white ones, in cultivated area, stand out the Chardonnay, Moscanto Bianco and Riesling Italic types. The three red grapes with largest cultivated areas are: Cabernet Sauvignon, Merlot and Tannat.

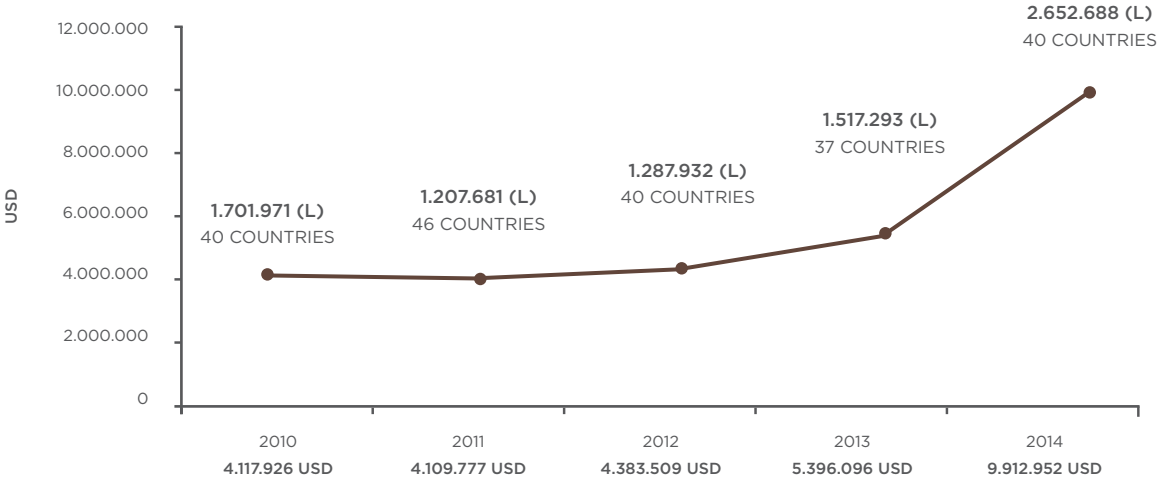
According to Uvibra (Brazilian Vineyard Union) data, the domestic wine production stands at about 196 million liters. Leadership is reserved for the red wine, with 157 million liters, followed by white wine, with 37 million and the rosé with 958 thousand. The volume of fine table wines is of approximately 38 million liters.

WINE EXPORTS

Until a short time ago an unknown figure in the international vineyard map, at present Brazil enjoys the role of being a novelty, attracting attention and leveraging the numbers of the green and yellow enology industry in its target markets.

In 2014, Brazil exported 2.6 million liters of wine, ending up with revenues of US$ 9.9 million, 83% higher than the figures for 2013, according to the statistics from AliceWeb (Information Analysis System for Foreign Trade), from the Ministry of Development, Industry and Foreign Trade (Mdic).

WINE EXPORTS IN 2014



Source: MDIC/ALICEWEB

The Brazilian product was shipped to around 40 countries, which is proof of the good moment that Brazilian wines are enjoying abroad. The top purchasing markets were Germany, China, the United States (USA), Holland and the United Kingdom that jointly absorb approximately 46% of Brazilian wine exports.

GEOGRAPHIC INDICATION OR ORIGIN

Brazilian vineyard regions have been investing to seek the seals of origin, a type of signature for each "terroir" in the country.

Disseminated broadly internationally, the geographic identity (GI) or origin is a certification that takes into account natural or human characteristics of the territory of origin or of the manufacturing process, with a focus on quality and type of product as factors for differentiation.

There are products with unique identity and their own values, with exclusive attributes arising from the natural resources, climate, soil, way of production, cultural factors and those relating to traditions.

In practice, the GI offers both the producer and consumers benefits, as by certifying the origin of a specific product- this prevents- at least in theory - other people from using it unduly in products that have no legitimacy to obtain the seal. This means to say that the GI acknowledges specific characteristics of a given product that cannot be reproduced in any other place unless it is the site of origin.

A classic example of a product certified with the GI is champagne. The sparkling wine produced in the region of Champagne-Ardenne became a synonym of this beverage in several countries worldwide.

Notwithstanding this, in 1927, the first Appellation d´Origine Contrôlée (AOC) was recognized, – denomination of controlled origin – used as the foundation to implement a system for the control of origin for wines in France and the rest of the world.

Thus, the name "champagne" is an AOC, the most stringent denomination of origin used in France, and can only be used for the wines produced in that specific region. With this focus in mind, Brazil works with its wine production. Among the Brazilian wine producing regions already with an established certificate of origin, those that stand out are Vale dos Vinhedos, Pinto Bandeira, Altos Montes, Monte Belo do Sul and Farroupilha, all in the State of Rio Grande do Sul; and ProGoethe, in the State of Santa Catarina.

PRODUCING REGIONS

Six regions stand out when it comes to producing wine:

- **SERRA GAÚCHA (RS)**

  The largest and most important vineyard region in Brazil, accounting for close to 85% of the domestic production of wines and sparkling beverages. The advantage is the basaltic soil and the temperate climate, quite moist, with pleasant balmy evenings, to cultivate grapes with a strong personality. The region encompasses five enological production areas with a GI in the country: Vale dos Vinhedos, Pinto Bandeira, Altos Montes and Monte Belo.

  The vineyards in this region produce over 500 labels, many of which withe emblematic Vale grapes, from the Merlot French caste. Other varieties that stand out are the red ones Cabernet Sauvignon, Cabernet Franc and Pinot Noir and the white grapes Moscato, Chardonnay and Riesling Italico (Welschriesling).

- **CAMPOS DE CIMA DA SERRA (RS)**

  The vineyards in this region are located at altitudes that vary between 850 and 1.100 meters above sea level. Due to the altitude and the incidence of cold winds, the grapes in this region are very healthy.

  Soils are deep clayey with good drainage. The red grapes Merlot and Cabernet Sauvignon and the white Sauvignon Blanc and Gewurztraminer are varieties that have adapted in an excellent way to the region´s soil and climatic conditions, a soil that is being chosen ever more for the cultivation of Pinot Noir and Chardonnay for the production of sparkling wines.

- **SERRA DO SUDESTE (RS)**

  In this medium altitude region, characterized by the landscape alternating between plains and mountainous regions, the lowest temperatures and the lowest rainfall create adequate conditions for quality wine production.

  Among the red wine vineyards in the region are the Cabernet Sauvignon, Merlot, Tannat, Marselan, Pinot Noir and Cabernet Franc. Among the white varieties, a highlight goes to Chardonnay and Riesling Italico (Welschriesling).

- **CAMPANHA (RS)**

  With a temperate climate and a flat topography, this region currently produces about 20% of the fine wines produced in Brazil, with a highlight for varieties such as Tannat, Cabernet Sauvignon, Cabernet Franc, Pinot Noir, Tempranillo, Touriga Nacional. The white varieties that best adapted to the region are Chardonnay, Gewürztraminer, Pinot Grigio and Sauvignon Blanc.

- **PLANALTO CATARINENSE (SC)**

  The identity of the wines in this region is shaped by the high altitude and the humid and cold climate. This is the highest production zone in Brazil, between 900 and 1,400 meters above sea level.

  Among the main varieties cultivated in this region are the red grapes Cabernet Sauvignon, Merlot, Pinot Noir, Syrah, Sangiovese and Montepulciano and the white Chardonnay, Gewurztraminer and Sauvignon Blanc.

- **VALE DO SÃO FRANCISCO (BA E PE)**

  Located in the Brazilian Northeast, this region with a warm and dry climate and a flat topography has the specificity of having a vineyard production cycle that ends up with two harvests a year.

  Among the main varieties of red grapes in the region are Syrah, Tempranillo, Alicante Bouschet, Touriga Nacional, Petit Verdot and Cabernet Sauvignon. Among the white grapes, a highlight for Moscato, Chardonnay, Verdejo and Sauvignon Blanc.

CACHAÇA

With a history of almost 500 years, cachaça is the typical and exclusive denomination for sugarcane brandy or spirits produced in Brazil. Its exclusive raw material, the wort, is fermented from the sugarcane juice, with an alcohol content of 38% to 48%. Currently this is the third most consumed distilled beverage in the world, with production exclusively on the national territory.

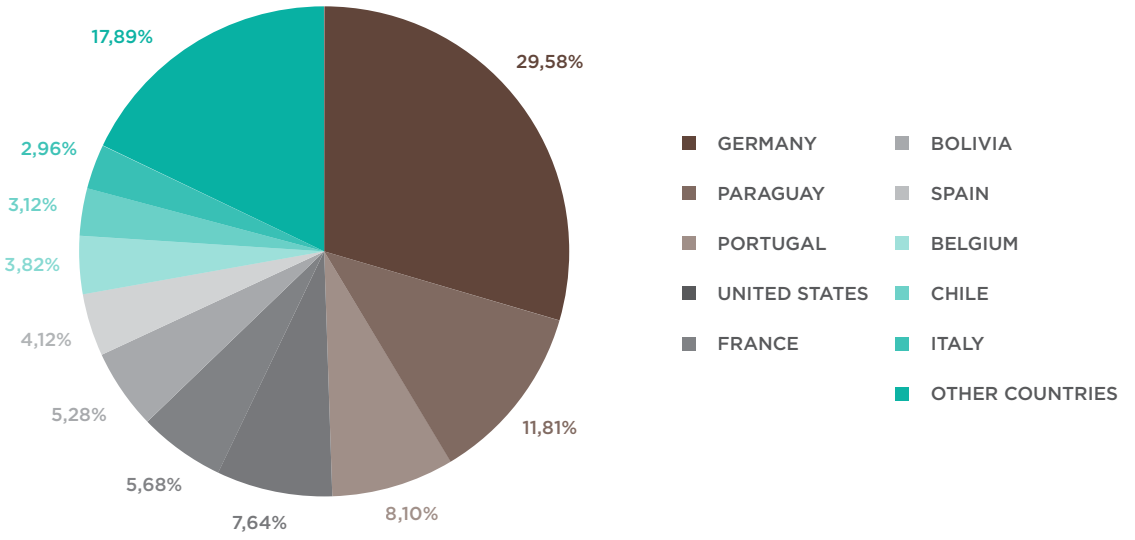
Brazil has almost two thousand duly registered cachaça producers at the Ministry of Agriculture, Livestock and Supply (Mapa), and approximately four thousand brands. It is estimated that these producers have an installed capacity of approximately 1.2 billion annual liters of this beverage.

Another data obtained from the IBGE Livestock Census (Brazilian Geography and Statistics Institute) points to the fact that Brazil has approximately 11 thousand companies producing sugarcane spirits (which includes cachaça), with 90% of these made up by small and medium producers.

When idle, the annual Brazilian production of cachaça is of approximately 800 million liters, invoicing about R$ 1.4 billion in business, encompassing the domestic market and foreign trade. The sector´s chain of production generates more than 600 thousand jobs, both direct and indirect ones. Among the main producing regions, the State of São Paulo, Pernambuco, Ceará, Minas Gerais, Rio de Janeiro and Paraíba are the most important. The numbers are from Ibrac (Brazilian Cachaça Institute).

In 2014, Brazil exported cachaça to 66 countries, with the main markets being Europe, especially Germany, and the United States (USA). Approximately 10.18 million liters were shipped, a volume 10% higher than that of 2013. Currently the sector counts upon 60 exporting companies that generate revenues of approximately US$ 18.33 million. Up to the end of 2016, according to the Ibra estimates, the objective is to increase exports of the product by 8%.

CACHAÇA EXPORTS



Source: Instituto Brasileiro da Cachaça

RECOGNITION

The recognition process for cachaça in the United States, Colombia and more recently Mexico, as an exclusive distilled spirit from Brazil is one of the factors that has given great thrust to the product´s internationalization.

According to the Ibrac Executive –Director, Carlos Lima, the protection of the name paves the way for more effective investments in marketing, ones that can underscore and emphasize cachaça as a unique product from Brazil, as tequila is from Mexico.

Recent acquisitions of domestic cachaça producers by large global conglomerates from the beverage segment is another aspect that will leverage the sector´s potential.

As is the case with fruit, cachaça also counts upon a program from the Brazilian Agency for the Promotion of Exports and Investments (Apex) for commercial promotion. With the participation of around 40 companies, the agreement, which extends until the end of next year, foresees investments of RS$ 1.6 million.

Europe will be the aim of a considerable part of these actions, due to the fact that it is a priority market, and the region still does not acknowledge cachaça as being an exclusive product from Brazil. Domestically, the sector is working in regulating the use of Geographic Indication for the product, as has already been done with wine.

THE MAIN BRAZILIAN WINE EXPORTERS

- Almadén
- Vinícola Aurora
- Vinícola Campestre
- Basso Vinhos e Espumantes
- Campos de Cima
- Casa Valduga
- Cave Geisse
- Domno Brasil
- Don Giovanni
- Don Guerino
- Garibaldi
- Hermann
- Laurentia
- Lidio Carraro
- Mioranza
- Miolo
- Ouro Verde
- Perini
- Peterlongo
- Pizzato
- Quinta da Neven
- Salton
- Müller*
- Sanjo
- Villa Francioniy
- Suzin
- Vinibrasil

Source: Instituto Brasileiro do Vinho - Ibravin / Agência de Promoção de Exportações e Investimentos – Apex

THE MAIN BRAZILIAN CACHAÇA PRODUCERS

- Alambique Cambeba
- Armazém Vieira
- Bebidas Asteca
- Cachaça Batista Ltda.
- Cachaça Germana
- Cachaça Weber Haus
- Campari
- Cia. Muller de Bebidas
- Copacesp
- Diageo Brasil
- Dias de Ouro Ltda.
- Empreendedora de Produtos Internacionais Ltda. - EPRIS
- Engarrafamento Pitu
- Engenho Caraçuípe
- Engenho São Luiz Ltda.
- Fábrica de Aguardente Santa Rosa - Cachaça Santa Rosa
- Fazenda da Quinta Agronegócios Ltda.
- Fazenda Soledade
- Indústria de Bebidas Paris
- Indústria de Bebidas Pirassununga
- Indústria Missiato de Bebidas
- Indústrias Reunidas de Bebidas Tatuzinho
- Pernod Ricard
- Porto Morretes
- R. Fernandes e CIA
- Union Distillery
- Yaguara
- Ypióca Agroindustrial de Bebidas S/

Source: Instituto Brasileiro da Cachaça - Ibrac

BLACK GOLD

THE GOOD TIMES CAN BE REDEEMED FOR FINE COCOA AND PREMIUM CHOCOLATE

Brazil is the fifth cocoa producer in the world ranking and the only one that has all of the production chain links. It is the third largest chocolate producer, the main by-product from cocoa processing that moves the main cocoa producing regions in the country and poses an opportunity to add value to the activity.

The production chain from cocoa to chocolate annually moves over R$ 12 billion in Brazil, deemed to be one of the countries with the largest cultivation potential for high quality cocoa. In 2015, the country should produce 265.185 tons of cocoa almonds, according to the forecast of the Brazilian Geography and Statistics Institute (IBGE). The Brazilian industry´s processing capacity is of 240 thousand tons, a surplus of 25 thousand tons.

For the technical advisor from the Executive Committee on Cocoa Crop Planning (Ceplac), Manfred Müller, the surplus is an opportunity for Brazilian cocoa production to resume sales abroad. "The expectation is to go back to gaining experience in the export of raw material and processed products", he states.

Last year, Brazilian exports for cocoa by-products totaled 50.278 tons, among paste, butter and powder cocoa, the equivalent to US$ 224.098 thousand, according to the Foreign Trade Secretary (Secex), from the Ministry of Development, Industry and Foreign Trade (MDIC).

REGAINING SPACE

After going through a difficult period, caused by the witches broom infestation which almost decimated Brazilian crops (in the 1990´s, production was 320.5 thousand tons), cocoa begins to regain its space. This is thanks to the efforts of planters, state-of-the-art research carried out by Ceplac, the State University at Campinas (Unicamp), The Cocoa Bioplant Institute, among other institutions, besides public investments.

It is possible to see the results already. According to the IBGE, the sector´s productivity has leaped from 170 thousand tons of dry almonds in 2003 to 279 thousand tons in 2014.

In June of this year, Minister Kátia Abreu (Agriculture, Livestock and Food Supply) stated that Brazil can once again become the great cocoa exporter and advocated the strengthening of Ceplac. "We have two domestic products that are in our DNA, in the heart of Brazil. One is cocoa and the other coffee. These are chains with considerable importance and I deem them to be priorities", said she.

SMALL NICHES

In this new phase, a segment with large potential in the country is that of premium chocolate, that has grown in the last five years at rates higher than 20% a year. According to the Brazilian Chocolate, Cocoa, Peanut, Candy and By-Products Association (Abicab), in 2014, production in this category was estimated around 44 thousand tons/year, from a total of 551 mil tons of chocolate produced in the country, representing 8% to 10% of the volume.

Albeit production of fine cocoa and gourmet chocolate being the great bet for the sector, as an expansion of business opportunities as well as to add value to the product, the market continues to be small, according to Abicab, but recording strong expansion.

What is growing is the interest in special chocolate (gourmet, premium, artisanal, fine chocolate). Gourmet chocolate is the sector that presents vast potential for growth", testifies Müller from Ceplac.

Another expectation within these small market niches is the growth of products with an ecological appeal and that use appropriate cultivation techniques and crop management, such as the certified Amazonia cocoa, produced in the agro-forest systems and organic cocoa, also from that region. "These products have a guaranteed market in Germany, with the wild seal from Amazonia", guarantees Müller.

The fin cocoa production is slow, but growing. Brazilian cocoa used to be known worldwide as being a low-quality product. Moreover, reality has changed at present. The product has even received awards at the International Salon that takes place annually in Paris.

COCOA IN NUMBERS

Besides chocolate, other by-products can be obtained from the cocoa almond. According to Ceplac, in 750 kilos of dry almonds (average amount harvested produced in one hectare), it is possible to obtain the following by-products: dry cocoa (750 grams); fresh seeds (1.8 tons); cocoa honey (200 liters); jam (150 kilos); vinegar (180 liters); distilled (25 liters); pulp (300 to 400 liters); frozen juice (300 to 400 liters); nectar (600 to 800 liters) and cocoa jam (200 to 300 liters).

Walter Tegane, Executive-Secretary from the National Association of Cocoa Processers (AIPC) that represents 95% of the cocoa processing park in Brazil, states that the companies associated to the entity invoice R$ 1.55 billion/year, collect R$ 295 million in taxes and directly employ 4.229 people in five plants.

Numbers from the Gross National Product (GNP) from the Cocoa and Chocolate chain, measured by the Center for Advanced Studies in Applied Economy (Cepea) in 2011, show that the sector employs 394.743 people, with 334.688 in cocoa production, 4.229 in processing and 55.826 in the chocolate and by-product industry, collecting R$ 2.262 billion in taxes.

According to the same study, revenues generated by the cocoa producing activity represent R$ 11.35 billion, among inputs, primary sector, processing, chocolate and by-product industry and distribution. Invoicing for the chain totals R$ 12.833 billion, of which R$ 920 thousand in production, 1.547 million in cocoa processing (liqueur, butter and cocoa/cake in powder) and 10.366 in the production of by-products (chocolate mixes, bonbons and sweets).

With a production of 800 thousand tons and apparent consumption of 790 thousand tons of chocolate in 2013, Brazil ranks 3rd in the world´s chocolate market, only behind the United States and Germany, according to Abicab. The fact is that the country has a per capita consumption of only 2.8 kg (Switzerland, Belgium and Germany go beyond 10 kg) and the sector believes that if there is a slight improvement in the population´s purchasing power, production and consumption could increase significantly.

The product is well evaluated by consumers, according to a survey carried out by the Brazilian Public Opinion and Statistics Institute (Ibope), commissioned by Abicab. According to the survey, seven out of every 10 Brazilians (75% of the population) consume chocolate and 35% will not change chocolate for another food or beverage.

Chocolate has good acceptance abroad as well. “The international market represents a good opportunity in the future. We are in over 100 countries, and to grow more, we would need to diminish the ‘Brazil cost’ and create a sounder exporting awareness”, emphasizes the chocolate Vice-President from Abicab, Ubiracy Fonseca.

Projections based on consumption curves from the last 40 years indicate that up to 2017, the world will demand an increase of 650 thousand tons of cocoa, this without taking into account the increase in cocoa chocolate demand in Brazil, China and Russia.

According to Fonseca, Brazil is very important in this sector. “We have the main world companies in this sector in the country, we produce around half a million tons of the finished product and generate many direct and indirect jobs”, he remarks.

Müller points to another advantage: Brazil is one of the pioneers in the production of cocoa processing pilot plants in small volumes, with capacities beginning at 120 kilos.

SUSTAINABILITY APPEAL

The cocoa production system has that sustainability appeal, it is based on family agriculture and on low greenhouse gas emission practices. “Cocoa cultivation is a totally sustainable system, which suffices to explain the ecological appeal and represents a significant source of income for small producers. In Bahia, as an example, 75% of the cocoa producers are small, the majority are family producers”, exemplifies Müller, from Ceplac.

Cocoa cultivation in the South of Bahia has sustainability and environmental preservation as a focus. The method chosen, the agro-forest system for Cabruca cocoa plantation helps preserve the Atlantic Forest biome and is used in around 70% of the 565 thousand hectares of planted area in the region.

According to the model, cocoa trees develop under the shadow of trees in the Atlantic Forest, which helps the preservation of forest species and wild fauna, besides protecting against water deficits, improving the nutrient cycles, reducing soil erosion and the use of fertilizers, incrementing the longevity of cocoa trees.

CHOCOLATE WITH AN ORIGIN IS A DIFFERENTIAL

BAHIA PRODUCES 20 BRANDS BASED ON SELECTED COCOA ALMONDS

The chocolate production chain is an interesting opportunity for the sector, especially when it comes to products that stand out. The southern region of Bahia, for example, occupies the first rank in cocoa production in the country and preserves the sophistication of the taste and of chocolate production.

Bahia accounts for the primary processing of 95% of the national cocoa harvest (transforming the almond in cakes, butter and liqueur), counts upon an industrial park, which includes the manufacture of fine chocolate and other by-products, besides having highly qualified labor and the bioplant for the production of seedlings.

According to Ceplac, Bahia is responsible for 60% of the domestic production and harvests over 150 thousand tons of cocoa each year. The region keeps the dynamism of its economy in this sector and produces 20 fine chocolate brands, gourmet chocolate, with the denomination of origin and high cocoa contents (70% cocoa), besides the top quality.

The large majority of the chocolate produced in Ilheus, in the South of the State is produced with high fruit content, based on selected almonds of special cocoa cultivated in the certified farms in the region.

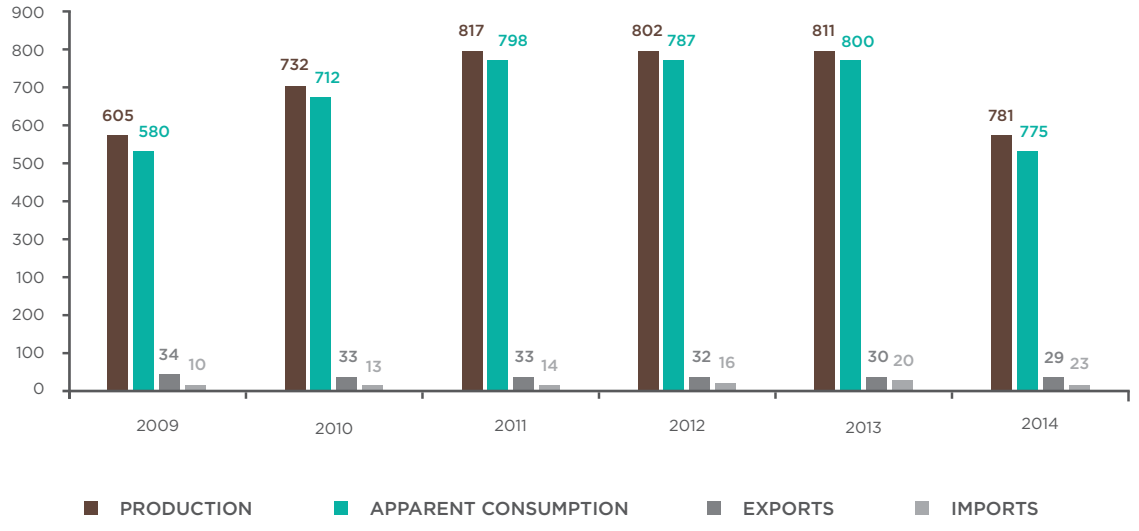
This segment, in which the sensorial features of the cocoa almonds are valued, has grown in Brazil and in the countries of the European Union and North America and Japan. While France has a mere 6 brands that produce chocolate based on the almond, in Ilheus there are more than 20.

Known as the Cocoa Capital and the Land of Cocoa, the city of Ilheus, in the Southern coast of Bahia, for example, ended up being one of the main world producing regions for the fruit in the last century, but entered a period of decline beginning in the 1980´s, due to the witches broom infestations. To win this battle against the pest, some producers maintained their activities, verticalizing production, transforming their properties into chocolate farms.

They continue to bet on this sector, Very soon, the Chocolate Highway will be launched; a tourist attraction on a 35- kilometer route that includes chocolate plants, industries, cocoa farms and research centers between the city of Ilheus and the city of Uruçuca. “Currently, Bahia has the largest capacity worldwide for the production of fine cocoa and chocolate, integrating tourism, environmental preservation and culture”, guarantees the Chairman of the Cocoa Sectoral Chamber and from the Cabruva Institute, Durval Libânio.

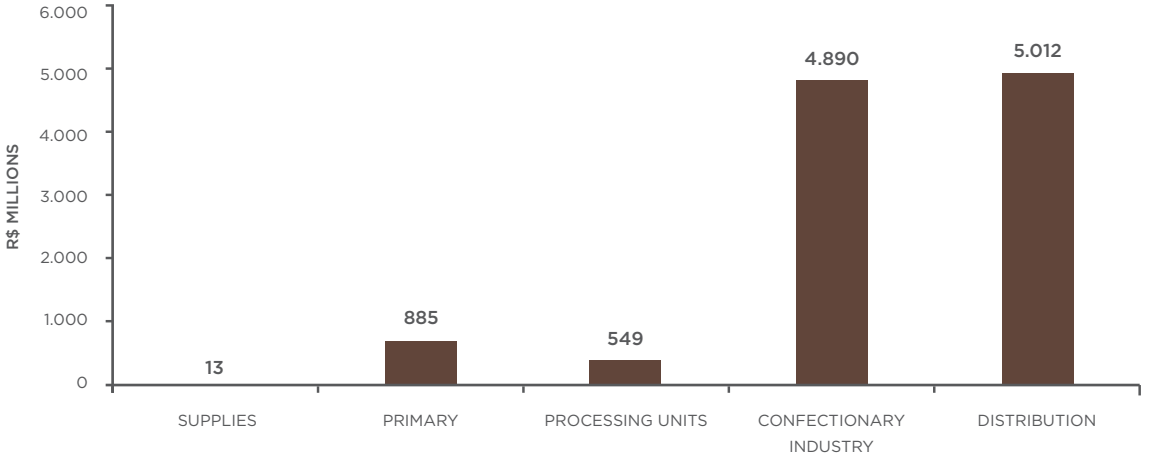
SECTOR PERFORMANCE GRAPHS

2009 - 2014 PRODUCTION - APPARENT CONSUMPTION, EXPORTS AND IMPORTS, INCLUDING POWDER CHOCOLATE MIXES IN VOLUME (THOUSAND TONS)



Source: UHY MOREIRA / ABICAB - SICAB

GDP OF THE COCOA AND CHOCOLATE CHAIN



Source: CEPEA

THE MAIN BRAZILIAN EXPORTERS OF COCOA AND COCOA PRODUCTS

- Arcor do Brasil LTDA.
- Arm Importadora e Exportadora Eireli
- Atacado Fernandes de Generos Alimenticios, Importadora
- Barry Callebaut Brasil Industria e Comercio de Produtos
- Brasilimentos Comercio de Alimentos Eireli
- Café Tres Corações S.A.
- Cargill Agricola S.A.
- Chocolates Garoto S.A.
- Coimbra Importação e Exportação LTDA.
- Cooperativa Agricola Mista de Tome Acu
- Croda do Brasil LTDA
- Dori Alimentos S.A.
- Ferrero do Brasil Industria Doceira e Alimentar LTDA
- Florestal Alimentos S/A
- Foz Global Exportadora de Alimentos LTDA
- Industria de Produtos Alimentícios Cory LTDA
- Joanes Industrial SA Produtos Quimicos e Vegetais
- Kraft Foods Brasil LTDA
- Liotecnica - Tecnologia em Alimentos LTDA.
- Masterfoods Brasil Alimentos LTDA
- Nestle Brasil LTDA
- Nutrimental SA Industria e Comercio de alimentos
- Pompeia S.A. Industrial e Comercio
- Puratos Brasil LTDA
- Riclan S.A.
- Tangara Importadora e Exportadora S.A.
- Vitaspice Brasil LTDA

Source: Vitrine do Exportador

WEALTH UNDER THE EARTH

CASSAVA HAS AN ECONOMIC AND SOCIAL APPEAL AS A SOURCE OF INCOME AND FOOD

With a guaranteed presence on the table of Brazilians, root vegetables and tubers are extremely representative of the national food culture, all the way from the low – income population up to the A bracket.

Among the species cultivated in Brazil, the consumption champions are cassava and potatoes, and a large variety of sub-products that arise from the two former ones. Manioc is the most used root in the country and one of the basic food staples in the population´s nutrition, in the form of flour and mainly through in natura consumption. Another aspect is its economic and social importance as a source of subsistence and income for small producers. With the diversity of products generated from manioc, they are able to have revenue alternatives in their properties.

Rich in carbohydrates, energy and fibers, table manioc in Brazil (known as mandioca mansa or mild cassava, aipim or macaxeira, depending on the region), gains the preference of people more and more, especially those concerned with aesthetics and health, as it is a source of alternative carbohydrates for those who are gluten intolerant.

The crop generates raw materials for the food industry as well, and can be used for animal feed. It is consumed minimally processed, frozen or refrigerated, pre-cooked, in the form of sticks, fries and chips, besides being part of Brazilian gastronomy. Manioc flour is the main ingredient in farofa or manioc flour and the manioc starch is used to make polvilho or powder manioc, the basic ingredient for the traditional " cheese bread" and tapioca, consumed as beiju.

THE SECTOR´S NUMBERS

Brazil is the second largest producer of manioc roots in the world, with 15% d of total production, equivalent to more than 24 million tons of roots, behind Nigeria with 57.5 million tons

Estimates from the Brazilian Geography and Statistics Institute (IBGE) point to a production of 24.154.375 tons in 2015, vis-a-vis 23.142.091 tons the previous year. This agency calculates the cultivation at 2.336.542 hectares and a productivity of 14.920 kilos/hectare and estimates annual per capita consumption of the root vegetables at 1.7 kg, of flour, at 5.33kg, and of starch at 0.77 kg.

World cassava production has increased 60% since 2000 and should grow further this decade. According to the United Nations Organization for Food and Agriculture (FAO), the plant can become the main crop for the 21st Century. Currently, this root vegetable is the base staple food for more than 800 million people in the world. The world production is estimated at 260 million tons.

The scenario is promising for Brazil, be it because of the increase in domestic consumption or due to the potential to export the flour, starch and root vegetables. At the beginning of 2015, cassava starch production totaled 645 thousand tons, the largest volume recorded in 12 years. With this result, the Gross Production Volume (GPV) for starch reached a record in the series from the Center for Advanced Studies in Applied Economy (Cepea) in 2014, of R$ 1.09 billion.

Brazilian starch exports also totaled 2.6 thousand tons in July of this year, going beyond the 562 tons exported the previous month and the 445.6 tons in July/2014. This was the largest volume shipped since January of 2002. Accrued in 2015, shipments of the product added to 6.7 thousand tons, overcoming by 12.2% the total for 2014, according to the Foreign Trade Secretary (Secex).

FROM NORTH TO SOUTH

The Brazilian Association for Manioc Starch Producers (Abam) estimates that 1 million people work in the cassava production chain, in the primary production phase and in the processing of flour and starch. Additionally it calculates that the activity provides gross revenues of US$ 2.5 billion. The production that is transformed into flour and starch respectively generates revenues equivalent to US$ 600 million and US$ 150 million.

Of 100% Brazilian origin, manioc is cultivated in the entire national territory. From the North to the Northeast, plantations are carried out in the traditional way, with little use of technology. In the Center-South however, the activity is done in an entrepreneurial way, with a focus on the industry, with the use of innovative technologies, resulting in greater productivity and offering new opportunities for the product marketing.

OTHER OPPORTUNITIES

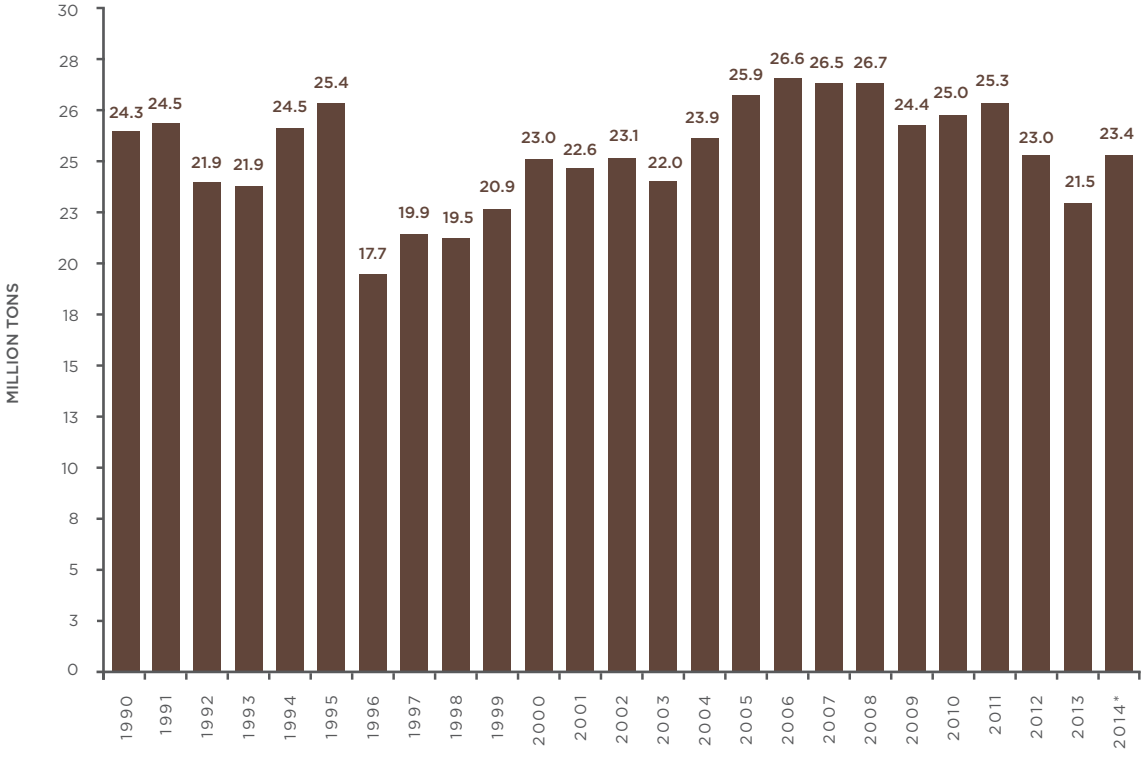
The flour, main manioc by-product, absorbs most pf the roots, Even with reduced consumption, some traditional forms of consumption are still maintained and based on the roots, leaves or even the water obtained from the paste that is pressed in the flour production process – the “manipueira” – used in the production of “tucupi”, the basis for several of the dishes in the Northern Region. The cassava leaves, after being boiled, are used in the preparation of “maniçoba” one of the Brazilian culinary dishes from indigenous origin.

The starch, also known as fecula, gum or powder manioc, has several uses in mining (the starch acts in iron ore separation), in oil extraction (avoiding the wear of the well perforation drills), in the pharmaceutical industry, paper and pulp, cosmetics and foods like sausages or cold cuts etc.

Presently manioc is also being studied as an insecticide, fertilizer and for the production of ethanol soap, ensuring that the crop of this root will acquire an outstanding position as a renewable energy source.

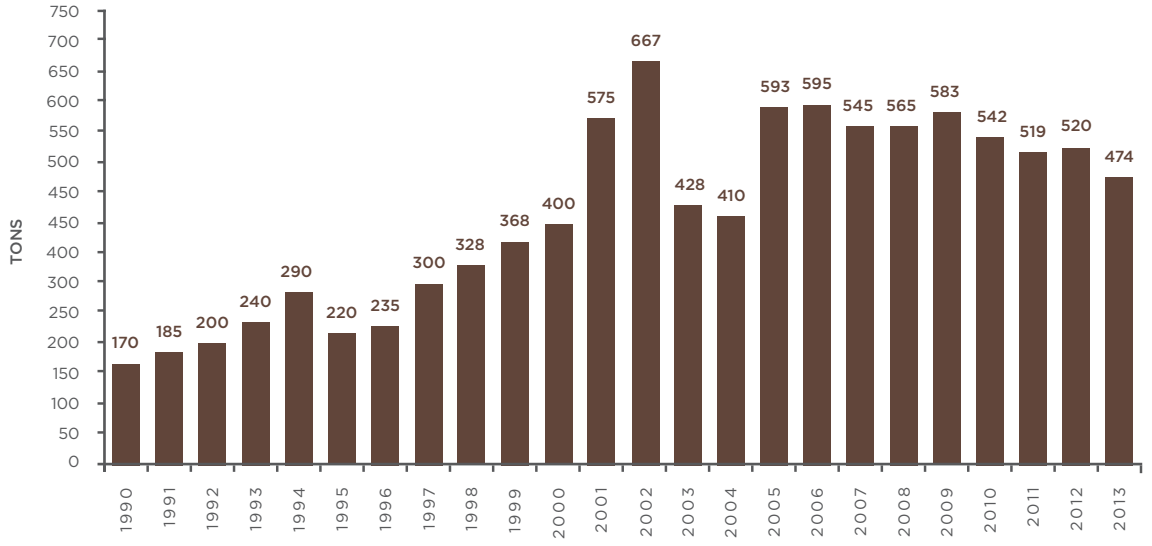
SECTOR´S PERFORMANCE GRAPHS

BRAZILIAN MANIOC PRODUCTION ESTIMATES 2014



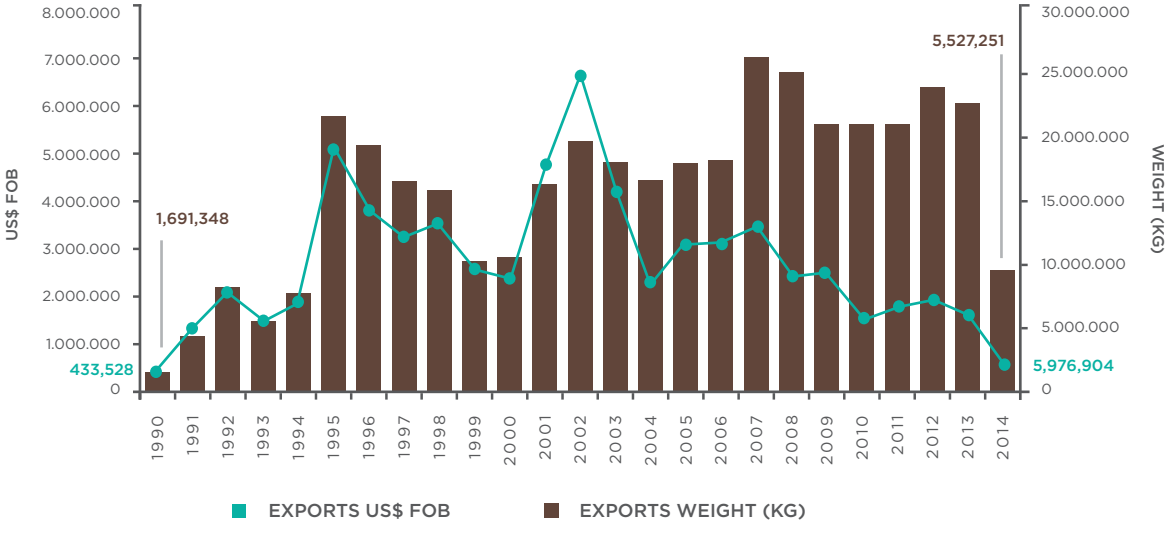
Source: IBGE / * ESTIMATES

BRAZILIAN CASSAVA STARCH PRODUCTION



Source: CEPEA / ABAM

BRAZILIAN CASSAVA STARCH EXPORTS



Source: MINISTRY OF DEVELOPMENT, INDUSTRY AND TRADE

According to the 2012 data from the IBGE, the country produced 23 million tons on 1,7 million hectares and exported the roots of cassava fresh, refrigerated, frozen or dried.

FROM THE SOIL TO THE TABLE

AN IMPORTANT SOURCE OF CARBOHYDRATES, POTATOES ALSO GENERATE GOOD BUSINESS

One of the most important nutritional sources for humanity, lagging behind only wheat and rice, potatoes have great representativeness in Brazil agriculture, the second largest producer in Latin America.

The Brazilian production is concentrated in four states: Minas Gerais, the largest producer, with about 1.183.259 tons, followed by Paraná (851.889 t), São Paulo (772.704 t), Rio Grande do Sul (358.364 t) and Goiás (208.000 t), according to the IBGE.

Potatoes occupy 125.569 hectares, according to the estimates of the IBGE for 2015. According to a survey carried out by Cepea/USP – Esalq, the expectations for this harvest are of 127 thousand hectares of planted area and a production of 3.7 million tons.

Brazil is a large center for the production and consumption of potatoes, formerly deemed to be a crop for small producers and that has currently become a significant source of carbohydrates. It has become more popular thanks to the fastfood sandwich chains that disseminated the habit of eating French fries.

Although the Brazilian per capita consumption is low (14 kg/inhabitant/year), when compared to other countries in Europe, where it reaches 100 kg/inhabitant/year, there are great expectations for the growth of this market and for investments from international investments in the sector.

Technology and varieties. With a presence in several of the Brazilian regions, the crop has been cultivated during different seasons and with varieties that have distinct characteristics, factors that influence both productivity and quality.

The streamlining of the national production sector, mainly in the new productive regions, has reflected in an increase in the tuber productivity. During the last few years, what has been verified is a reduction in the planted area and a continuous increase in production. The agro-industrial chain for potatoes has been undergoing enormous changes in the production map, thanks to advances fostered by technology and because of the implementation of new varieties, as well as changes in land ownership and management of properties.

The Brazilian Company for Livestock and Agricultural Research (Embrapa) is carrying out research to fulfill these needs, in cooperation with other research institutions, to be able to get to varieties that can offer high productivity and quality raw material for industrialization.

The growing use of potatoes, in the industrialized form, requires a steep production and quality levels to be able to compete in the international market. For this purpose, Embrapa additionally carries out research to ensure that varieties are more adapted to Brazilian conditions, with greater productivity and less demanding use of pesticides and fertilizers.

OPPORTUNITIES

The producing regions in the South of Brazil playa an important role, especially in the production of small properties, for subsistence and marketing in the community, not competing in the larger markets where the demands regarding standards, especially those of appearance, are a decisive factor for product acceptance.

According to an agronomist from the Emater-RS de Passo Fundo regional office, Ivan Guarienti, "as they present resistance to pests and diseases, the varieties developed by Embrapa can be cultivated in large scale, without the use of pesticides, which represents a considerable reduction in production costs".

The agronomist also observes that marketing is a differential in the South of the country. In Paraná, for example, the main destination for potatoes is the industrial market and the in natura sale of the product which takes place only in the first semester. In Santa Catarina on the other hand, production is mainly geared for the seed market" explains Guarienti, who adds that "in the last years, potato plantations for in natura consumption have been growing in the State. Despite this, the potato from Santa Catarina is still marketed exclusively in the local market".

NEW CULTIVARS

By means of research and development, Embrapa is already at the fourth variety of seeds for the tuber that is offered to the market, according to Arione da Silva Pereira, Embrapa Temperate Climate researcher. "The first was launched in 2007, a cultivar with double aptitude, for the industry and for the domestic market, denominated BRS ANA. In 2010, the time came for BRS CLARA, geared to the fresh potato market, destined mainly to the South of the country, resistant to the main disease that attacks the tuber, not only in Brazil but in the rest of the world, the re-burning", explains Arione.

In 2012, the BRS IPR was released, developed jointly with the Agronomic Institute of Paraná (Iapar), destined to processing in the form of shoestring potatoes and for the production of potato chips.

According to Pereira, "Embrapa negotiated with two seed producing laboratories and, at the moment, the variety is under evaluations and validation for a large industry in the country."

This year, the entity launched the BRS F63 (BS CAMILA) equally destined to the fresh potato market, with much greater productivity, quality and a good appearance, besides the gourmet quality. "This variety has a great differential, as it is resistant mainly to the main virus that greatly reduces productivity in the entire world, the Y potato virus, explains the Embrapa researcher.

SECTOR´S PERFORMANCE GRAPH

POTATOES - BRAZILIAN PRODUCTION/TONS

REGIONS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
NORTHEAST	180.630	180.344	169.596	2.610	294.210	293.730	303.615	344.039	159.850	245.179	173.442
PB	3.390	3.194	3.946	2.610	2.990	3.050	1.040	2.261	340	1.009	2.112
PE	240										
BA	177.000	177.150	165.650		291.220	290.680	302.575	341.778	159.510	244.170	171.300
SOUTHEAST	1.755.336	1.728.413	1.728.413	1.950.978	1.969.614	1.816.002	1.797.113	1.949.657	1.988.758	1.912.768	1.965.368
MG	966.008	1.003.621	994.131	1.115.518	1.205.936	1.134.199	1.143.633	1.275.008	1.181.617	1.257.462	1.183.259
ES	8.998	7.953	7.322	288.809	7.799	7.523	7.520	9.219	8.623	8.740	9.405
RJ	1.010	970									
SP	779.320	831.965	726.960	542.291	755.879	674.280	645.960	665.350	798.518	646.566	772.704
SOUTH	995.817	944.797	1.019.966	1.236.802	1.217.314	1.076.643	1.200.187	1.290.022	1.227.038	1.207.425	1.326.037
PR	580.350	547.183	579.631	577.767	688.214	547.681	727.433	793.754	746.480	733.858	851.889
SC	120.555	113.477	105.126	291.252	143.657	150.876	105.373	107.516	121.557	115.924	115.784
RS	294.912	284.137	335.209	349.783	385.443	378.086	367.381	388.752	359.001	357.643	358.364
CENTER-WEST	115.300	160.524	219.807	184.664	1.94.998	232.250	294.415	311.032	120.520	204.979	210.764
MS		716									
GO	114.650	154.400	214.500	131.600	190.150	232.250	276.240	277.065	110.020	202.215	208.000
DF	650	5.408	5.307	60	4.848	N.D	18.175	33.967	10.500	2.764	2.764
BRAZIL	3.047.083	3.130.174	3.137.782	3.375.054	3.676.136	3.418.625	3.595.330	3.894.750	3.496.166	3.570.351	3.675.612

Source: IBGE / Data obtained from AGRIANUAL2015

POTATOES – HARVESTED AREA – BRAZIL/HECTARES

REGIONS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014*
NORTHEAST	180.630	6.049	5.443	305	7.718	8.102	8.460	9.976	4.588	6.318	4.490
PB	441	439	493	305	380	390	450	320	82	121	264
PE	30										
BA	5.600	5.610	4.950		7.338	7.712	8.010	9.656	4.506	6.197	4.226
SOUTHEAST	69.937	72.823	69.300	71.199	71.639	69.019	69.750	68.247	67.630	64.758	67.357
MG	37.364	38.064	36.748	36.964	40.270	38.518	39.286	41.553	38.481	39.995	38.128
ES	562	526	482	10.896	469	441	404	454	459	463	492
RJ	81	79		259	0,0	0,0					
SP	31.930	34.154	32.070	23.080	30.900	30.060	30.060	26.240	28.690	24.300	28.737
SOUTH	63.961	59.303	60.506	62.925	60.297	57.839	57.704	59.827	55.136	52.064	53.612
PR	29.336	27.502	28.384	25.610	27.831	26.438	29.412	31.175	29.182	27.170	30.039
SC	8.666	8.189	7.979	16.434	8.681	8.386	6.948	6.789	6.269	5.324	5.348
RS	25.959	23.612	24.143	20.881	23.785	23.015	21.344	21.863	19.685	19.000	18.225
CENTER-WEST	2.735	4.044	5.482	7.898	4.746	6.027	5.718	8.932	3.050	5.292	5.271
MS		29									
GO	2.710	3.800	5.270	3.282	N.D	5.570	5.369	7.982	2.750	5.221	5.200
DF	25	215	212		4.745	457	349	950	300	71	71
BRAZIL	142.704	142.219	140.731	142.327	144.400	140.987	141.632	146.982	130.404	128.432	130.730

Source: IBGE / Data obtained from AGRIANUAL2015

THE MAIN BRAZILIAN EXPORTERS OF CASSAVA PRODUCTS

- Amifec Alimentos LTDA.
- Amidoeste
- Copagra - Cooperativa Agroindustrial do Noroeste Paraense
- Coopasul
- Cooperativa Lar Agroindustrial
- Forno de Minas Indústria e Comércio
- General Mills Brazil LTDA. (YOKI)
- GT Foods Group
- Tereos Syral
- Yama

Source: ABAM (Associação Brasileira dos Produtores de Amido de Mandioca)

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