P&A COFFEE NEWSLETTER

YOUR BEST SOURCE OF INFORMATION ABOUT THE BRAZILIAN COFFEE BUSINESS. THIS ISSUE:

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() BRAZIL MAY PRODUCE 52 MILLION BAGS IN 2018 AND 63 MILLION IN 10 YEARS

According to the Ministry of Agriculture, Brazilian coffee production may increase 8.3% in 2018 reaching 52 million 60kg bags compared to 48 million in 2017. Perspectives for the next ten years are also drawn up by the Ministry that estimates an average production of 63 million bags in 2026, an increase of 31.3% over 2017. This figure may however be affected by climate change. Read more about this subject at the Outlook session.

ESTIMATES OF PRODUCTION, DOMESTIC CONSUMPTION AND EXPORTS (million bags)											
YEAR	16	17	18	19	20	21	22	23	24	25	26
PRODUCTION (AVERAGE)	51	48	52	51	55	55	57	57	60	61	63
PRODUCTION (UPPER LIMIT)	-	-	62	61	69	69	73	74	78	79	82
CONSUMPTION (AVERAGE)	22	23	23	24	24	25	26	26	27	27	28
CONSUMPTION (UPPER LIMIT)	-	24	25	25	26	27	28	29	30	30	31
EXPORTS (AVERAGE)	35	38	39	39	40	42	42	43	44	45	46
EXPORTS (UPPER LIMIT)	-	43	45	45	47	49	50	52	53	54	56

Source: Reuters

Source: Prepared by CGEA/DCEE/SPA/MAPA and SGI/Embrapa based on CONAB and MAPA data

COFFEE EXPORTS DECREASE DUE TO ADVERSE WEATHER

Brazilian coffee exports – green and processed coffees – decreased 7.4% in the 2016/17 crop year compared to the previous year and totaled 32.9 million bags according to the Brazilian Coffee Exporters' Association (CeCafé). Revenues however increased 5% due to



higher average export prices and reached US\$ 5.642 billion. Arabica exports represented 28.9 million bags, a decrease of 2%, Conilon accounted for only 277 thousand bags, a sharp decrease of 88%, and soluble coffee remained stable compared to the previous year, with exports of 3.7 million bags even with the low offer of Conilon, its main raw material. Conilon production was strongly affected by the drought in 2016/17 but may grow 20% in 2017/18.

Sources: Valor Econômico and Estadão

PRIVATE COFFEE STOCKS FELL 27%

CONAB, the Ministry of Agriculture agency in charge of warehousing and crop estimates, released the figures of private stocks in Brazil surveyed between March and June 2017. Stocks totaled 9.8 million bags and represented a decrease of 27.4% compared to the 13.6 million bags held in the same period of 2016. This is the lowest figure registered since 2011/12. According to CONAB, Arabica coffee accounted for 8.8 million bags and Conilon stocks were only 995 thousand bags. Both numbers are below the volumes registered in the previous year, 12.5 million and 1.1 million bags respectively. The figures above confirm the coffee sector's perception that private stocks fell substantially and with government stocks at zero level moderate price rises may be expected.

Sources: Valor Econômico and CaféPoint

COFFEE BERRY BORER INFESTATION RISING

Coffee growers are increasing their efforts to control berry borer, a pest that destroys the internal part of the coffee bean and causes losses in quality and volume. The infestation of coffee berry borer in some Brazilian regions increased from 3% in the beginning of the year to 30% as a result of Endosulfan banishment. Experts observed that the pest is evolving faster – 3 cycles in this current crop – and greater precaution is required from coffee growers specially with mechanical harvesting that tends to leave more coffee behind in the field.



Source: Valor Econômico

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() ORGANIC COFFEE PACKAGES TO BE PRODUCED WITH GREEN PLASTIC

Braskem and União Plasticos, companies that produce and sell flexible plastic packaging, entered into a partnership with the Cooperative of Small Growers of Poço Fundo and Region (Coopfam), in Minas Gerais state, to supply green plastic "I'm Green" packages (pouches) for R&G coffee. 100% renewable sugar cane polyethylene will be the raw material for production of the organic coffee packages. Coopfam is well known for organic and agro ecological agriculture initiatives that benefit over 400 families of small coffee growers in South Minas. The innovative and sustainable green plastic package captures three tons of CO2 for each ton of renewable resin produced.



Source: Revista Cafeicultura

()) DULCERRADO COFFEE SHOP RECOGNIZES WOMEN'S ROLE IN COFFEE GROWING

Dulcerrado Cafés Especiais recognized the high quality coffee produced by a woman in Caixetas Estate, in the Cerrado Mineiro region, during its Edição do Produtor ("Grower Edition") event. This coffee was awarded the first prize in the Fourth Cerrado Mineiro Region Competition, pulped natural category, and will be served at the Dulcerrado Coffee Shop in filter and espresso versions for one month. The woman who manages the farm was honored as a representative of all women involved in coffee growing.

Source: CaféPoint

()) COKE TO ENTER BRAZILIAN COFFEE MARKET



Coca Cola will launch a coffee brand, Café Leão, produced with 100% Brazilian coffees. The blend will use coffee beans from the Cerrado Mineiro and Mountains of Espírito Santo grown by small and mid-size growers. This initiative aims to recognize all the work coffee growers need to go through in order to produce high quality specialty coffees. The company expects to double the demand for its product in the next five years.

Source: CaféPoint

Source: CafePoint

()) NESTLÉ TO INVEST US\$ 3.2 MILLION IN FRESHLY GROUND COFFEE SEGMENT

Nestlé has invested R\$ 10 million (US\$ 3.2 mi) on a new line of whole-bean coffee to be ground just before brewing. The company expects this new product to sell 400 million cups or 2 million tons of coffee in the next three years. The product will be produced with 100% Arabica coffees grown on mountain areas of South Minas and will be available at commercial establishments and dispensed by Nescafé multi-beverage machines that use freshly ground coffee to prepare different types of espresso, cappuccino and other milk-based drinks.



Brazilian Prices

Main Producing Regions / Farm Gate			July 31, 2017
Arabica Naturals (R\$/60 kg bag)		Conilon / Robusta (R\$/60 kg ba	g)
Cerrado MG	475,00	Colatina-ES fair average price	418,00 🛉
Mogiana	470,00 🕇 🛶		
South Minas	470,00 + + 7.4%	[B] ³ ex-BM&F (US\$/60kg Arabica)	Real R\$ / Dolar US\$
Arabica Pulped Naturals (R\$/60 kg bag)		Set 2017 166,85	Jul 31, 2017 3,15
Cerrado MG	505,00 🛉 🗸	Dez 2017 171,55	Source:
South Minas	500,00 🕇	Set 2018 178,15	www.qualicafex.com.br

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WILL BRAZIL PRODUCE 63 OR 75 MILLION BAGS IN 2026?

The study recently released by the Ministry of Agriculture, Livestock and Food Supply (MAPA), whose 10-year projections are summarized in the table below, provides good grounds for speculating on the role Brazil will play in coffee supply by 2026.

ESTIMATES OF BRAZILIAN PRODUCTION, CONSOMPTION AND EXPORTS IN 2026 (MILLION BAGS)								
	PRODUCTION		CONSU	MPTION	EXPORTS			
	BASE CASE	MAXIMUM	BASE CASE	MAXIMUM	BASE CASE	MAXIMUM		
2016	51		22		35			
PROJECTION 2026*	63	82	28	31	46	56		
CHANGE IN PERIOD	+ 24%	+ 61%	+ 27%	+ 41%	+ 31%	+ 60%		
CHANGE PER YEAR	+ 2.2%	+ 4.9%	+ 2.4%	+ 3.5%	+ 2.7%	+ 4.8%		

ESTIMATES OF BRAZILIAN PRODUCTION, CONSUMPTION AND EXPORTS IN 2026 (MILLION BAGS)

* Source: Prepared by CGEA/DCEE/SPA/MAPA and SGI/Embrapa based on CONAB and MAPA data

The base-case scenario for production seems conservative considering the figures that several sources are proposing for as early as 2018 itself, reason why it may be worth to look at the upper end of the projection range, called maximum at the table above, or somewhere between base case and maximum. Climate change seems to be here to stay, the economic feasibility of producing coffee is being questioned around the world and Brazil is no exception, and this issue of Coffidential mentions a growing berry borer attack. However, looking at past production-growth figures and the unique ability that Brazilian growers have shown to face challenges and to increase production, the future growth rate may be between the 2.2 and 4.9% figures in the table, perhaps in the upper half of the range.

Coincidentally, adding the base-case projections for consumption and exports one arrives at a requirement of 28 + 46 = 74 million bags, larger than the projected production of 63 million and in the upper half of the range, with a growth rate of 3.8%. Since this discrepancy is recurring in the MAPA series found in the first piece of news in this Coffidential, one cannot claim that the difference between the requirement of 74 million and production of 63 million bags will come from stocks.

Projections for exports must reflect consumption growth in importing countries and emerging markets if Brazil is to retain its current market share... or a mix of consumption growth and gain in market share. Considering that Brazil has been indeed gaining market share in the past except for the recent drought years and that experts are claiming that world consumption growth may be below the recent figures of 2.5% per year perhaps not even 2%, a 3% growth figure for Brazilian exports, with some market share gain, may be a good number placing the 2026 figure at 47 million with a growth of 12 million bags in the period.

Turning now to Brazilian consumption, the growth rates may at first sight seem rather optimistic considering recent performance and the current economic crisis that is not likely to be solved in the short run. On the other hand, the trend to switch qualities and to move towards lower cost coffees has been showing that it is the value of sales that is growing more slowly rather than actual consumption. All in all, the base-case projection of 28 million bags in 2026 may be feasible.

Adding exports of 47 million and domestic consumption of 28 million one arrives at 75 million bags required in 2026 that is very close to the 74 million obtained by adding the respective base-case projections. In summary, both the market perception of 60 million bags still in this decade and the calculations above seem to challenge the base-case production forecast of 63 million in 2026 and pushes it towards a figure around 75 million bags. This latter figure is also more aligned with the average of 40% of production consumed in Brazil itself. Last but not least, if there is agreement on the base-case consumption of 28 million and production remains at 63 million bags, exports will be stagnant at 35 million bags with a progressive loss of market share that seems unlikely.

A target of 75 million bags in 2026 may make sense considering that the growth over 2016 will be 47% to be compared, coincidentally, with an increase of about the same 47%, from averages of 33 to 50 million bags between 2003 and 2013 before droughts hit Brazilian coffee growing areas. However, from a different perspective, 75 million bags would require an average productivity on the high side, of 37.5 bags/ha, if the current planted area of about 2 million hectares does not expand. This high countrywide average productivity is unlikely to be reached and expansion of the planted area will be required; there are already signals that this may be happening but they are still timid. With the current planted area of 2 million hectares, 75 million bags may be too ambitious unless there are new technological leaps as it happened before with greater density, new varieties and better husbandry. Irrigation in all areas, climate smart agriculture, migration to flat areas and mechanization of mountain coffees will certainly have to be in the agenda.

Whichever reasons have caused the projected production to remain at 63 million bags will have to be addressed to avoid loss of market share. If the past holds lessons for the future, they will indeed be addressed and the current crisis and low returns in production will not deter the process. The reasons for this last statement deserve another Outlook article...

MACHINE OF THE MONTH

Pinhalense's stainless steel **cocoa pod breaker** has a strong social impact because it drastically reduces the risk of accidents in cutting the pods open with machetes. This machine not only breaks the pods and releases the seeds but also separates husk pieces from the cocoa beans. The pod breaker can be installed on a tractor cart upon

Pinhalense

COCOA PROCESSING EQUIPMENT

Pinhalense has been playing an increasing role in the supply of cocoa processing equipment worldwide in countries that also produce coffee or not. The Pinhalense cocoa processing line comprises: the innovative **pod breaker**, whose patent it holds, the recently launched **mucilage remover**, equipment to tilt fermentation boxes, the best-selling **rotary driers**, state-of-the-art **pre-cleaners**, size graders and gravity separators.

PINALENSE

request in which case a generator is required.

The latest addition to Pinhalense's cocoa line, the **mucilage remover**, was

designed to shorten rather than to replace fermentation. Beans that go through this machine ferment for a shorter time – it saves one or two days – and dry faster without quality losses. It can be used in conjunction with the Pinhalense machines that transfer cocoa beans mechanically between fermentation boxes.

Pinhalense **SRC rotary driers** for cocoa, galvanized or stainless steel, are in operation in many cocoa

growing countries with excellent results thanks to its special design and features that avoid physical damage to beans that are being dried. The SRC cocoa-bean driers are available in several sizes to suit different grower sizes and markets.



The Pinhalense **cocoa precleaner PL** is used after drying to remove impurities that are larger or smaller than the dry cocoa beans and to prepare them for further processing. The precleaner can precede driers that are used to complete and homogenize the drying of pre-dried seeds.

The two remaining machines – the **PI size grader** with specially designed screens and rubber-ball automatic cleaning system and the **MVF densimetric separator** – can be used in a process flow or separately depending on the final product required. The grader separates the lot of beans by size in order to access specific markets whereas the gravity separator removes less dense – "light" and defective beans – with positive impacts on product quality.

Pinhalense cocoa processing experts can design product flows and provide equipment layouts that combine the machines above in the most efficient way using Pinhalense **conveyance equipment** to transport cocoa from one machine to the other and Pinhalense **silos** for buffer, in-process and final storage.

Pinhalense produces equipment for other agricultural products besides cocoa and coffee, namely black pepper, beans, macadamia and other grains and nuts.

