P&A COFFEE NEWSLETTER Year 09 - No.98 - September 10, 2015

COFFIDENTIAL

8th Anniversary Issue!

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

NEXT FLOWERING ALREADY CONCERNS GROWERS

Harvesting of the 2015 crop is not over yet but production in the 2016/17 season is already on growers' and analysts' radar screens. Coffee flowering usually starts in September and rains are fundamental during the period since they are one of the factors that determine how large the next crop will be. The current harvesting season presented smaller beans than usual due to lack of rain. Weather forecasts predict irregular rains in coffee areas in September, which could lead to flower losses, but the main concern among growers is lack of rain in October.

Source: Valor Econômico

PRIVATE COFFEE STOCKS FALL

Private coffee stocks in Brazil reached 14.3 million bags on March 31, 2015, 5.6% less than the 15.2 million bags reported in the same period of last year, according to Conab, the government agency in charge of crop estimates. From this total, 12.98 million bags are Arabica and 1.38 mi bags are Robusta/Conilon. Cooperatives account for 38.5% of the total coffee stored, followed by exporters (22.53%), roasters (10.47%) and soluble industries (1.8%). The Southeast region, which includes São Paulo and Minas Gerais states, holds 93% of the Brazilian Arabica stocks, with Minas holding the majority of the private stocks. CNC (National Coffee Growers' Council) estimates private coffee stocks of only 6 million bags to be carried into the new crop season.

Sources: Valor Econômico and Estadão Conteúdo

FERTILIZER COSTS ON THE RISE

Arabica production costs have suffered a significant increase in Brazil in the first semester of 2015. Direct Cash Cost went up 6.82% on average, with fertilizers being the input with the highest price variation: 19.4%. In mechanized areas such as Luis Eduardo Magalhães, in Bahia, fertilizer prices grew as much as 22.3%. Insecticides and herbicides have also had significant price increases of 15% and 12%, respectively.

Source: CNA

US$ 270 MILLION CREDIT LINES RELEASED FOR COFFEE TRADE AND INDUSTRY

The Ministry of Agriculture, Livestock and Food Supply (MAPA) has repassed R$ 989.3 million (US$ 270 mi) from the Brazilian Coffee Fund (Funcafé) to financial institutions for loans for coffee stocks and purchases and working capital for cooperatives, roasters and soluble manufacturers.

Source: MAPA

NEW PINHALENSE MILL TO DOUBLE EXPOCACCER'S CAPACITY

Expocaccer, the Cooperative of Coffee Growers in the Cerrado Region, will invest R$ 25 million (US$ 7 million) in two stages on a new Pinhalense dry mill and storage facility. The cooperative opened the storage unit for 500,000 bags on September 5, doubling the existing capacity. The second stage of the investment is the implementation of the Pinhalense dry mill, with capacity to process up to 36 tons of green Arabica coffee per hour, to be concluded by March 2016.

Source: Estadão Conteúdo

DEEPER PLANTING TO COPE WITH CLIMATE CHANGE

Planting of coffee in deep pits, very usual in the past, was used in order to seek higher humidity for germination of the seeds, protection of the young seedlings from sunlight and specially protection from frosts. Back then, a type of cage was built over the seedlings using small sticks. Although in recent decades coffee has been mostly planted at soil level, there are on-going trials of deeper planting being carried in Brazil, this time with the purpose of improving productivity in periods of drought. Recent field studies with Arabica in Bahia state, with yield increases of 20% to 30%, have shown that deep planting may be a good technique to cope with climate change.

Source: CaféPoint

EMBRAPA TO RECEIVE R$5.5 MILLION FOR COFFFEE RESEARCH

The Brazilian Coffee Fund has released about US$ 1.5 million to finance 92 coffee research projects to be developed until 2017. The main focus of the studies will be coffee sustainability in mountainous areas, scarcity of labor and growing labor costs, biotic stresses (insects, fungus, bacteria, viruses and nematodes) and water shortage, marketing and quality for profitability, and the deficiencies of technology transfer.

Source: Embrapa Café

BRAZILIAN COFFEE SHOP CHAIN TO ARRIVE IN CHILE

Coffee store chain Suplicy Cafés, whose coffees are now served in TAM airline flights, is planning a great expansion with the opening of 12 stores this semester, 70 until 2020 and 45% growth in the next two years. Suplicy has registered a 17% higher revenue in July against the previous month, despite the economic crisis. The chain plans to open new stores at MASP, the Art Museum of Sao Paulo, and in Manaus, the capital of Amazonas state, before it arrives in Chile by the end of the year.

Source: Valor Econômico

BRAZIL LEADS SALES OF DOLCE GUSTO CAPSULES IN THE WORLD

Brazil currently leads the growth of Dolce Gusto sales in the world with two-digit annual figures. Dolce Gusto sales will grow larger than Nescafé's in the next two to three years. The brand plans to invest more in advertising and innovation to fight economic recession and to absorb the production of the new Dolce Gusto factory in Montes Claros, Minas Gerais state, that is scheduled to start operations by the end of 2015. Part of the capsules produced will be exported to Argentina.

Source: Valor Econômico

DOLCE GUSTO LAUNCHES COFFEE QUALITY COMPETITION IN BRAZIL

Dolce Gusto has launched a coffee competition to select the best Brazilian coffees that will be used to produce a special edition of its capsules. The 100% Brazilian coffee capsule will be sold after July 2016 in the country and other markets where the brand is present. Growers from all over Brazil can participate in the categories Natural Arabica, Washed Arabica and Conilon (Robusta). Participating coffee lots must be certified by a sustainability standard, such as Certifica Minas or Rainforest Alliance.

Source: CaféPoint

BRAZILIAN COCOA PRODUCTION INCREASES TO MEET LOCAL DEMAND

Brazil is about to harvest enough cocoa to meet its own needs after two decades of imports from West Africa. Both growers and industry claim that this so-called self-sufficiency results not only from the recovery of national production but also from low demand by the cocoa processing industry that has adjusted grinding volumes to the lower chocolate demand in Brazil. Since the beginning of harvesting in May, processing companies have received 26% more cocoa than in the same period last year. Pará has been increasing planted area and productivity but Bahia is still the leading cocoa producing state in Brazil.

Source: Valor Econômico

COFFEE DENSITY AND PRODUCTIVITY*

The density of planting – coffee trees per hectare – has evolved from under 800 to 5,000 to 10,000 in extreme cases in Brazil in the last 40 to 50 years. One of the results of this process has been a marked increase in productivity as predicted in the trials in the table below and confirmed by country-wide average figures.

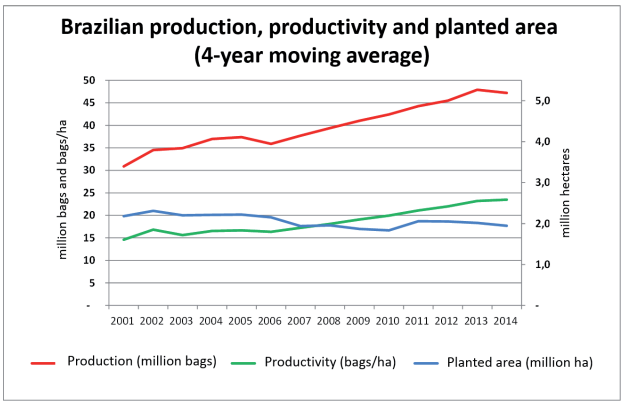
TRIALS PLOTS AND SPACING BETWEEN TREES	No. OF TREES PER HECTARE	PRODUCTIVITY (60kg bags/ha)
1- PINDORAMA-SP (average of 21 crops / 1938-1959)		
4 x 4m	625	6,7
3,5 x 2,5m	1.142	13,4
3,5 x 1,7m	1.680	17,5
2- VARGINHA-MG (average of 7 crops / 1978-1985)		
5 X 2m	1.000	13,5
3,8 x 2m	1.315	19,6
3,8 x 1m	2.630	23,7
1,5 x 1m	6.666	40,1
3- MARTINS SOARES-MG (average of 11 crops / 1996-2006)		
4 x 0,5m	5.000	42,7
2 x 0,5m	10.000	56
1 x 0,5m	20.000	78

Source: J. B. Matiello in Revista Attalea Agronegócios

It may be claimed that the increase in productivity has been a collateral, side effect because the density of planting changed for other reasons that ranged from coffee leaf rust control to the need to mechanize cultivation first and harvesting after. Side effect or by-design, this noteworthy association between density of planting and productivity is now proven beyond research trials by the increase of 4-year-average productivity from 14 to 23 bags/hectare (840 to 1,380kg/ha) in the period from 2001 to 2013 (see graph below) as average plant density increased from about 1,200 to close to 4,000 coffee trees per hectare.

It is obvious that density increase was not the only cause of the growth in productivity – new technologies played a key role – but it cannot be ignored that greater spacing was a major facilitator of disease and pest control, mechanization and technological change and that together they brought about the increase in productivity and cost reduction that made Brazil one of the most competitive coffee origins in the globe as shown by its growing market share.

The fact that Brazil holds only about 18% of the area planted with coffee in the world but accounts for almost 35% of production raises the question of whether many other producing countries should consider density as a key factor to increase productivity. The immediate reaction – counter-argument or word of warming – is that there are cases, regions and countries where high densities are used but average productivities fall behind those of Brazil. The explanation may be that Brazil not only increased density but also moved into specific coffee tree arrangements, specially hedge planting (large space between lines of trees and small space between trees in the line), that brought about results that have not been achieved with other arrangements in environments where scarcity of labor and/or its increasing costs are also a problem.



Source: CONAB, prepared by P&A

How much of what Brazil did is viable to do in other coffee producing areas of the world and even in some coffee growing areas of Brazil itself has to be analyzed and evaluated. But the scenery of labor scarcity and escalating costs around the world recommends that the Brazilian paradigm be considered if not as a solution in itself at least as a reason to question the current densities and tree arrangements.

** This Outlook has been prompted by J. B. Matiello's article "Espaçamento de cafezais evolui muito" in the August issue of magazine Revista Attalea Agronegócios. Even though I used data and even concepts from Matiello's excellent article, the ideas and proposals above are of my own and exclusive responsibility.*

Brazilian Prices

Main Producing Regions / Farm Gate — August 31, 2015

Arabica Naturals (R$/ 60 kg bag)		
Cerrado MG	475,00	↑
Mogiana	470,00	↑
South Minas	470,00	↑
Arabica Pulped Naturals (R$/ 60 kg bag)		
Cerrado MG	525,00	=
South Minas	520,00	=

+ 11.7%

Conilon / Robusta (R$/ 60 kg bag)		
Colatina-ES fair average price	325,00	↑

BM&F (US$/60kg Arabica bag)		
Sep 2015	150,30	↓
Dec 2015	153,50	↓
Sep 2016	152,10	↓

Real R$ / Dolar US$		
Ago 31, 2015	3,65	↑

Source: www.qualicafex.com.br

THE MICRO LOT PROCESSING JIGSAW PUZZLE: QUALITIES + FLOWS + LAYOUT + MACHINES

Micro lots, a firm tendency in today's coffee market, pose specific processing and logistic challenges due to their small size and high quality. At the same time that processing for exports – dry mills – grow bigger and bigger (see Machine of the Month in Coffidential 95) and shipments of coffee in bulk expands, micro lots go in the opposite direction and require separate handling and traceability. How to do it?

The obvious answer of using large existing lines off-hours has limitations that run from difficulties to adjust the machines in the short time the lot is processed to the risk of mixing coffee, large and micro lots or micro lots themselves with each other, to mention only a few. Traceability and supply-chain certification become complex if not impossible.

The ideal, cost effective and practical solution is to have a separate processing line specifically designed for micro lots. "Designed" and "specifically designed" are the key words and concept because it is not enough to put together small capacity machines. The secret is to identify processing requirements first, to define the best process flows to meet these requirements, and then to prepare the corresponding equipment layout that will indicate the machines to be used.

Pinhalense is particularly well positioned to perform the tasks listed above.

Knowledge of features and qualities of local coffees available

Pinhalense has unique worldwide experience with the raw materials that compose micro lots: the high quality coffees produced in the different regions and countries of the world.

Expertise in techniques required to process incoming coffees into micro lots

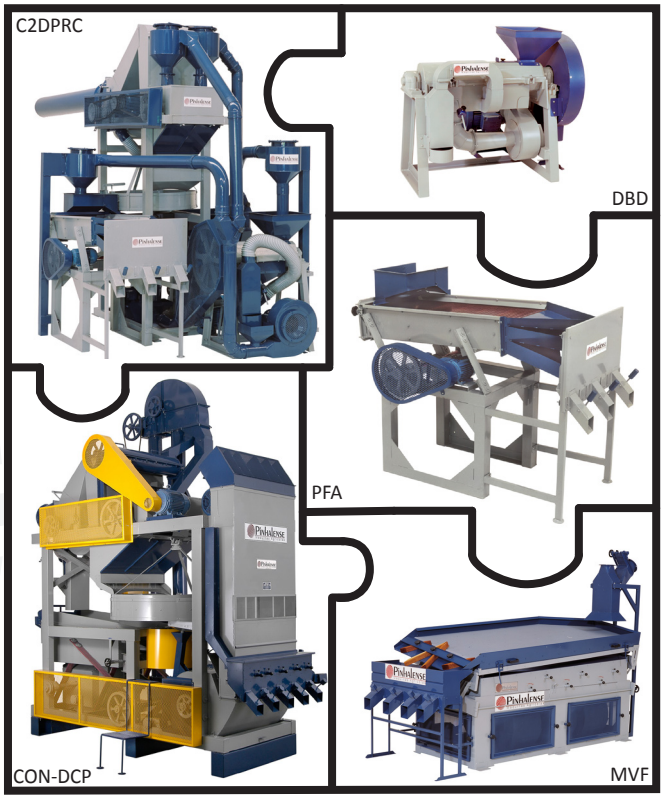
Pinhalense has full knowledge of the specific technologies to process coffee "ingredients" into the micro lots that different markets require. The respective process flows and equipment layout and the degree of processing sophistication to be used depend on the features of incoming and outgoing products.

Customized flexible flows and layouts that respond to the qualities of incoming coffee and outgoing micro lots

Pinhalense has created exclusive customized equipment layouts that use its specially designed machines for small lots to address the specific challenges of processing micro lots in different countries. *These layouts, that have peculiarities that depend on coffee types and producing regions, are supplied free of charge to clients as part of Pinhalense's turnkey technical solutions.*

Machines specially conceived and designed to process micro lots

- Cleaning, hulling and separation
  - C2DPRC
  - CON-DCP
  - CON
- Hullers-polishers
  - DBD
  - DEPOL
  - DEPOS
- Size graders PFA
  - different screens
  - different capacities
- Gravity separators MVF
- Silos and conveyors
- Self-cleaning elevators
- Dust aspiration system



The Pinhalense machines above are the most visible parts of the micro lot processing jigsaw puzzle. The product flow is the scheme or recipe to put together the pieces / machines together. The equipment layout depicts how the jigsaw puzzle will look like after it is assembled. Unlike the standard jigsaw puzzle, that may be only assembled in one specific way, the micro lot processing jigsaw puzzle may be assembled in different ways that are dictated by the qualities and types of incoming and outgoing coffees.

The analogy is not perfect but the idea is there: know the ingredients and market requirements, define process flows, design the layout, specify machine, and rely on Pinhalense expertise to do it all in a cost-effective and efficient way.