HOW ABOUT A CUP OF COFFEE? FAMILY FARMING AND CORPORATE FARMING IN COFFEE PRODUCTION IN MINAS GERAIS

VAI UM CAFEZINHO AÍ? AGRICULTURA FAMILIAR E AGRICULTURA EMPRESARIAL NA PRODUÇÃO DE CAFÉ EM MINAS GERAIS

¿QUÉ TAL UNA TAZA DE CAFÉ? AGRICULTURA FAMILIAR Y AGRICULTURA EMPRESARIAL EN LA PRODUCCIÓN DE CAFÉ EN MINAS GERAIS

Larissa Dulce Moreira ANTUNES[1]
Ezequiel REDIN[2]

ABSTRACT: This work aims to analyze the cultivation of coffee in Minas Gerais and especially in the Mesoregion of Noroeste and Vale do Jequitinhonha and Mucuri. This crop is extremely important in the field's production, as it effectively contributes to the country's GDP, and to the economy of the state of Minas Gerais. The economic importance is reflected in other areas such as the political and strategic importance of these productive spaces. Our proposal is to build an analysis from the database made available by the 2017 Agricultural Census, the last census carried out in Brazilian territory to draw a profile of Minas Gerais producers and analyze how family and business agriculture are distributed in the territory of Minas Gerais. The analysis also elucidates the places and forms of production that most need state help, based on the implementation of public policies. The conclusions point to the presence of an unequal agrarian structure that directly interferes in the form of coffee production in the analyzed territory.

KEYWORDS: Coffee. Brazil. Minas Gerais. 2017 agricultural census.

RESUMO: *Este artigo tem como finalidade analisar o cultivo de café no estado de Minas Gerais, em especial na mesorregião do Noroeste e do Vale do Jequitinhonha e Mucuri. Esta cultura é de extrema importância na produção do campo, pois contribui efetivamente para o PIB do país e para a economia do estado mineiro. A importância econômica se reflete em outros âmbitos, como a importância política e estratégica destes espaços produtivos. Nossa proposta é construir uma análise a partir do banco de dados disponibilizado pelo Censo Agropecuário de 2017, último censo realizado em território brasileiro, a fim de traçar um perfil de produtores mineiros e analisar como a agricultura familiar e empreserial estão distribuidas no território mineiro. A análise também elucida os locais e as formas de produção que mais precisam de ajuda estatal, a partir da implementação de políticas públicas. As conclusões apontam para a presença de uma estrutura agrária desigual que interfere diretamente na forma de produção do café no território analisado.*

[1] Federal University of Minas Gerais (UFMG), Belo Horizonte – MG – Brazil. PhD student of the Post-Degree Program in Political Science. ORCID: https://orcid.org/0000-0002-5285-4150. E-mail: larissa_dma@hotmail.com

[2] Federal University of the Vales do Jequitinhonha and Mucuri (UFVJM), Unaí – MG – Brazil. Adjunct Professor at the Institute of Agrarian Sciences. PhD in Rural Extension (UFSM). ORCID: https://orcid.org/0000-0002-3750-8225. E-mail: ezequiel.redin@ufvjm.edu.br

PALAVRAS CHAVE: *Café. Brasil. Minas Gerais. Censo agropecuário de 2017.*

RESUMEN: *Este artículo tiene como objetivo analizar el cultivo del café en el estado de Minas Gerais, especialmente en la mesorregión del Noroeste y en el Valle de Jequitinhonha y Mucuri. Este cultivo es extremadamente importante en la producción del campo, ya que contribuye eficazmente al PIB del país y a la economía del estado de Minas Gerais. La importancia económica se refleja en otros ámbitos, como la importancia política y estratégica de estos espacios productivos. Nuestra propuesta es construir un análisis a partir de la base de datos puesta a disposición por el Censo Agropecuario 2017, el último censo realizado en el territorio brasileño, con el fin de dibujar un perfil de los productores de Minas Gerais y analizar cómo se distribuye la agricultura familiar y empresarial en el territorio de Minas Gerais. El análisis también dilucida los lugares y las formas de producción que más necesitan la ayuda del Estado, a partir de la aplicación de políticas públicas. Las conclusiones apuntan a la presencia de una estructura agraria desigual que interfiere directamente en la forma de producción del café en el territorio analizado.*

PALABRAS CLAVE: *Café. Brasil. Minas Gerais. Censo agropecuario 2017.*

Introduction

The importance of coffee growing in the country predates the Republican Brazil. Although it became the largest source of national wealth after 1850, the first coffee productions in the territory were identified since 1802. These productions took place in small farm located in Resende and in the Vale do Paraíba, province of Rio de Janeiro. Sometime later, the crop spread to several villages also in Rio de Janeiro, such as Vassouras, São João do Príncipe, Valença and Canta Galo.

The coffee economy is a border economy, which needed expansion to new lands and thus expanded until reaching São Paulo and, long after, the territory of Minas Gerais. According to historiography, from the 1840s on, coffee surpassed the country's main source of income, sugarcane (MOREIRA, 2007). The expansion of plantations and external demands imposed the need for intense productive labor, the only way to maintain large-scale production, since the country received little or almost no investment in infrastructure, machinery and skilled workers.

The first falls of the coffee system occurred from the 1880s and in 1882 the country suffered from the first national coffee crisis, when production exceeds world consumption, promoting the fall in prices in the international market. The output found to reset market prices was an intense process of continuous devaluation of the country's currency to favor

the export and purchase of part of the production by the State. The coffee purchased by the state was stocked and only marketed when the product was missing, otherwise it was burned.

It is important to point out that this policy of devaluation of the currency for the benefit of coffee was intended to preserve the profit of these producers. Farmers received in dollars, while the population witnessed public money being used to finance coffee growers. With this, the devaluation of the currency caused in the lower classes the increase in the cost of living.

The crisis of 1929, which began with the stock market crash in the United States of America spread around the world also catastrophically affecting the country. At this time, coffee production accounted for 70% of production. The large coffee farms were dismantled, the economy diversified, gradually becoming the predominance of industrial capital. Coffee farming ceased to represent the support of the national economy, until then anchored in an exporter model structured under the large property with abundant and cheap labor. Even with these transformations, coffee continued to be in the following decades the main agricultural product made available to the foreign market.

Still, many coffee growers during the first republic accumulated fortunes and managed to diversify their investments, directing part of their capital to the assembly of banks and industries. The economic, political and social power of producers has influenced in a certain way in different sectors of the country, now more or less, according to economic conditions.

Since the period called Brazil Empire, the coffee economy has been a constituent part of the country's historiography, being an extremely important culture cultivated by several states. Next, we can observe how the production is concentrated in the territory according to the last Agro Census of the country.

This article aims to trace some analyses from the Agricultural Census of coffee cultivation in Brazil, published in 2017, especially in the state of Minas Gerais. The methodology used is qualitative in nature, based on the analysis of these secondary data. The division was structured into three parts following the conclusion. The first part concerns the cultivation of coffee in Brazil, performing a brief historical overview, then the article explains about the cultivation in the state of Minas Gerais, in the third part, a discussion is held around these rural establishments, finally, the final considerations are exposed.

Coffee cultivation in Brazil

To analyze the data that will be distributed throughout the article, it is important to make a brief overview of history, in order to discuss what is and how the Agricultural Census works in our country.

Census is the name given to a statistical research method, in which there is the collection of important data for understanding a given universe. For the execution of the Agricultural Census of Brazil, more than five million agricultural establishments are visited. The entire agricultural establishment is defined as the entire production and exploitation unit dedicated to agricultural, forestry and aquaculture activities. It can be at the same time for sale or subsistence regardless of its size or location, because environments with these characteristics are also present in urban perimeters.

In the execution of the Agricultural Census a list of data is collected. The information allows evaluating the dynamics and production index of Brazilian agricultural activity, as well as generating studies on the expansion of agricultural frontiers, understanding the transformations that result from technological innovations, and enriching the production of environmental indicators, essential in the context of sustainable development goals. The results of the Agro Census are fundamental and irreplaceable for comparative analyses of agricultural and environmental indicators between national and international agencies. They are also decisive for the creation and implementation of public policies, academic studies, project development and investment decisions from public and private companies.

In Brazil, the Agricultural Census is still the most important and complete means of statistical research on agricultural production. The census questions cover aspects in relation to the structure, investigating the characteristics of the establishment, area, production and internal aspects related to the producer and workers.

In the 1920s, the first Agricultural Census of the country was conducted. At this specific time, the census was an integral part of the General Census. In the following decade, according to historiography (FREITAS, 2003; MILLIET, 1982; MORAES, 1989), under Getúlio Vargas in 1930, the research was suspended for political and institutional reasons. From the 1940s to the 1970s, the survey took place every ten years and, from the 1970s on, it became five-year. In this exact period, the census was conducted in the beginning of the final years 1 and 6 and referred to the years of end 0 and 5. It is noteworthy that in the Agricultural Census 1995-1996, the information was reported to the year-harvest (August 1995 to July 1996).

After the years, in 2006, the reference of the data was again the calendar year. The year 2006 is a milestone in the history of this survey, both for the technological innovation introduced in the field operation stage, with the replacement of the paper questionnaire by the electronic questionnaire developed in a handheld, the Personal Digital Assistant - PDA, as well as for the methodological refinement, especially with regard to the reformulation of its content and the incorporation of new concepts. In this edition, the National Register of Addresses for Statistical Purposes - CNEFE was also inserted, whose structure includes the detailed description of the addresses of households and agricultural establishments, the geographical coordinates of all households and establishments (agricultural, religious, teaching, health and other purposes) of the rural area, responsible for providing contribution to the planning of future IBGE research.

This analysis will be carried out from the last Agro-census conducted, the 2017 census. Generally speaking, the Agricultural Census 2017 again had as reference the crop year (October 2016 to September 2017), but in a period different from that adopted in the Agricultural Census 1995-1996. As indicated by the government website, in the 2017 survey, new technologies were introduced to control the collection, such as: prior list of addresses, use of satellite images on mobile collection devices for better location of the census rife in relation to the terrain and use of coordinates of the address and place of opening of the questionnaire, which allowed better coverage and evaluation of the work.

For contextualization, we must explain that currently the periodicity of the research is five-year, but the surveys are from 1990, 1995, 2000, 2005 and 2010. Data were not collected on these dates due to government budget cuts: the 1990 Agricultural Census did not occur; the 1995 survey was conducted in 1996 along with the Population Count; the 2000 survey was not conducted; the 2005 survey was in the field in 2007 together, once again, with the Population Count; the 2010 count was not carried out; and the 2015 was in the field in 2017, as available on the government website.

The importance of the Agricultural Census for the country is immeasurable. This is because statistics from research like these allow us to draw a much more complete picture of the social, economic and environmental reality of a country. They can also function as a database that describes, explains and demonstrates from a historical perspective the evolution of the country's agrarian structure in view of the 101 years of application since the first Brazilian census. Being support for the advancement and technological development and the establishment of public policies that correspond to the demographic conditions of the

country.

Below is the first table with the Brazilian states that participate more actively in coffee production in Brazil.

Table 1 – Ten largest Brazilian coffee grower states (green) - Arabica (ton) and ten largest states in Coffee Beans (green) establishments - Arabica Brazil

States	Quantity Produced (ton.)	States	Establishments
Minas Gerais	1.500.344,011	Minas Gerais	119.508
São Paulo	221.159,084	Espírito Santo	26.313
Espírito Santo	113.454,440	Bahia	18.211
Paraná	73.857,984	São Paulo	10.417
Bahia	49.131,457	Paraná	9.866
Goiás	12.595,627	Rio de Janeiro	1.696
Rio de Janeiro	8.809,114	Rondônia	524
Rondônia	2.515,390	Pernambuco	333
Distrito Federal	1.544,509	Ceará	310
Mato Grosso	518,930	Mato Grosso	222

Source: Prepared by the authors, based on IBGE data (2017)

Brazil is the largest exporter of coffee in the world and half of its production comes from the state of Minas Gerais [3], with the highest concentration of coffee plantations in the southern region of the state. Climate, soil and altitude are the factors that promote the cultivation of coffee cultivation in this region. According to the "Representative Map of Coffee Producing Regions (2005)", Minas Gerais, besides being the largest exporter in the country, is also an exporter of the main sources of specialty coffees. The plantations are concentrated almost entirely in Arabica coffee grown in the mining territory in the regions: Southern Minas, Cerrado de Minas, Chapada de Minas and Matas de Minas.

The State of São Paulo occupies the second place of coffee production and plantations are located in the regions of São João da Boa Vista, the equivalent according to Agência Brasil de Economia (2018) to 18.8% of the total from São Paulo. Good production

[3] According to the Government of the State of Minas Gerais, the division of the territory of Minas Gerais, officially adopted by the state government, establishes ten Planning Regions, listed below, in alphabetical order:1) Alto Paranaíba; 2) Central; 3) Centro-Oeste de Minas; 4) Jequitinhonha/Mucuri; 5) Mata; 6) Noroeste de Minas; 7) Norte de Minas; 8) Rio Doce; 9) Sul de Minas; 10) Triângulo. O número de municípios em cada uma delas é o seguinte: Alto Paranaíba (31), Central (158), Centro-Oeste de Minas (56), Jequitinhonha/Mucuri (66), Mata (142), Noroeste de Minas (19), Norte de Minas (89), Rio Doce (102), Sul de Minas (155) and Triângulo (35).

rates tend to maintain stability, as producing farms are located in mountains that are not affected by climatic variations. Like Minas Gerais, São Paulo's production focuses on Arabica coffee.

The Espírito Santo and the state of São Paulo for some years take advantage of the second place, because the Arabica type coffee (green beans) operates with a typical bienniality of the crop, which consists of, in the first year, presenting a rich harvest and, in the second, considerably reducing the harvested tons, first the crop of green beans and then the sack with black grains. The type of coffee that is grown in Espírito Santo is Conilon coffee, which is produced in the warmer areas to the north, known as the Conilon Capixaba region, and Arabica to the south, a region known as the Mountains of The Espírito Santo.

The states that appear in the table below are very important for coffee production in the country, although they are less expressive than the top three. Paraná is the southernmost coffee producing state in the country. Only Arabica coffee is grown in dense plantations, which use varieties suitable for the coldest climate of the region to its production with emphasis on the peeled cherry type.

The State of Bahia is located in the northeastern region of Brazil, with hot weather and higher temperatures. There are two coffee-producing regions in the state: Planalto da Bahia and Cerrado da Bahia, where Arabica is cultivated. To the south of the state there are also areas where Conilon coffee (Robusta) is produced.

The Goiás territory, which is already recognized nationally for its high rates of agricultural productivity, has stood out in the branch as a new border of Arabica coffee in the country, the abundant rain in the rainy season makes it favorable to cultivation in this region.

Coffee production in Brazil expanded from the Baixada Fluminense and the Vale do Rio Paraíba, which crossed the provinces of Rio de Janeiro and São Paulo. Coffee growing in Brazil benefited from the country's slave structure, being incorporated into the plantation system, basically characterized by monoculture aimed at export, slave labor and cultivation in large land owners. In this region of Brazil, coffee production benefited from the climate and soil conducive to its development. The fact that it is a route for the transport of goods between Rio de Janeiro and the mining areas also contributed to the adoption of the coffee crop, since part of the land was deforested, initially facilitating the introduction of coffee swiddens and benefiting the flow of production through existing roads. These are some of the reasons that make cultivation in this region favorable.

Although Rondônia is not a major producer like Minas Gerais, for example, they are

coming up in the cultivation of this crop. The state's coffee growers, according to CONAB (2019) information, have increased productivity in recent years with the modernization of crops and investment in new seedlings more productive.

The Federal District (DF) also appears on the list of the largest Producers of Brazilian coffee, the coffee produced in the Cerrado also has better quality for consumption. According to experts, the low humidity of the region makes it difficult for the grain to rot and gives an enhancement to the coffee. The grain produced in Brasilia is Arabic, which is better set with the climatic characteristics of the Federal District. The crop is usually marketed locally in some establishments in the capital, but is usually sold to Minas Gerais and São Paulo, where it is roasted and taken for export.

The producer of Brasilia does not export directly, but sells the product to be roasted in other units of the Federation and marketed outside the country. Federal District is in tenth place in the ranking of the largest national exporters. The characteristics of a coffee produced in a region where drought predominates guarantee DF qualities for consumption. Profitability also encourages farmers. The figures show that when talking about the harvest, there is no break for a coffee.

In Mato Grosso, according to CONAB (2018), there was a growth of 4.2% in the area and improvement of the technological package that led to an increase of 16.7% in production compared to last year's harvest. There were 105,800 bags of Conilon and 1,000 bags of Arabica. This increase occurred mainly to better crop management, an ideal rainy regime for the crop and positive biennially for the current cycle. One of the main coffee producers is the municipality of Colniza.

Coffee has specific peculiarities in relation to aroma, body, acidity and sweetness depending on the place and the specificities of relief from which it is produced. Because of the territorial dimension of Brazil, it is common for the same State to have different types of coffee. This is the case in the state of Minas Gerais.

Coffee plantations are present in 15 Brazilian states: Acre, Bahia, Ceará, Espírito Santo, Goiás, Distrito Federal, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Pará, Paraná, Pernambuco, Rio de Janeiro, Rondônia and São Paulo. Soil characteristics, altitude, thermal amplitude and climate are determinant for quality, but technological investment is also able to support production.

To different degrees, all these locations have a high technological investment for the production of this culture. Because most of the production is aimed at export, for this reason

it is necessary to have a control and optimization of production. For agribusiness, this means high technological investment with selected seeds, irrigation system whose regions have irregular rainfall, fertilization and fertilization in addition to the use of pest inhibitors.

The states that have the largest number of rural establishments, mostly, correspond to the states that most produce this culture in the country. With the exception of the state of Ceará and Pernambuco, all ten other states of this table have both large-scale productions, as well as a high number of establishments that grow coffee.

We can list two reasons to explain the previous statement: the first, because of family farming and the second, for the type of coffee produced. Family farming is still the main source of basic food for Brazilians, several indispensable products such as rice, beans, milk and coffee are worked in the garden by the family production unit. For this reason, we diagnosed the presence of many coffee-producing establishments in the country.

Coffee plantations are present in many family farming communities, and coffee is its main source of income for decades, especially for families that produce most of the food in their consumption. The coffee has no shelf life, which facilitates its sale. In addition, it requires less space than cattle raising, for example. With little space it is possible to plant a satisfactory amount.

The second reason is the production of special type coffees. There is a very receptive market of this kind. It is important to note that these types of specialty coffees often have a seal of sustainability, organicity, respect for local fauna and flora. All this in a more or less effective way is an obstacle for large plantations, which is also the justification for the existence of numerous producing establishments and not large large-scale productions.

Coffee Cultivation in Minas Gerais

Table 2 – Ten largest municipalities producing coffee beans (green) - Arabica (ton) and ten largest municipalities in coffee (green) - Arabica establishments in Brazil

Municipalities	Quantity Produced (ton.)	Municipalities	Establishments
Patrocínio	56.607	Manhuaçu	2.743
Poços de Caldas	44.843,520	Campos Gerais	2.607
Três Pontas	30.245,289	Nova Resende	2.597
Boa Esperança	28.822,601	Simonésia	2.228
Campos Gerais	28.323,091	Divino	2.037
Machado	28.282,785	Santa Margarida	1.956
Araguari	27.549,480	Caratinga	1.794
Manhuaçu	26.306,745	Ervália	1.778
Nova Resende	23.386,772	Lajinha	1.683
Monte Carmelo	23.323,040	Poço Fundo	1.626

*Establishments over 50 feet on 30 Sep. 2017
Source: Prepared by the authors, based on IBGE data (2017)

The second table refers, on the one hand, to the ten largest mining producing municipalities measured by the quantity in tons and, on the other hand, the municipalities that have the largest number of establishments that grow coffee. It is essential to analyze that all these cities present in this table are mining cities. With the exception of Campos Gerais and Nova Rezende, the cities that appear in the first list do not appear in the second. The first list focuses on large farms whose production is large-scale; the second, production from family farming. It is important to point out that family farming can refer to producers settled as non-settled producers.

The differential of the Southern region of Minas Gerais for coffee production is in its climate and the appropriate topography, in addition to the good existing support infrastructure, in terms of technical advice, facilitated means of communication and transport, availability of nearby input, marketing structure and etc. For specialists (CARVALHO JUNIOR, 2002; SOUZA, 1996) the productive importance of southern Minas Gerais is intrinsically related to the physical geography of this territory, which exerts a strong influence. In particular, climate and soil fitness for greater productivity and quality, property infrastructure, coffee grower professionalism, varied production systems, qualification of labor, organization in cooperatives, technology generation, competent technical assistance, tradition and sustainability. The mountainous landform is ideal for

coffee production. According to the existing literature, in the South of Minas Gerais is 4,000 coffee plants per hectare, which represents the semi-dense cultivation system. Despite having a land with a lot of slopes, coffee growers make a lot of use of mechanization in their crops. The region also stands out as a pioneer in the cultivation of organic coffee.

Table 3 – Coffee Grain Production (green) - Arabica (ton) in the Northwest Mesoregion of Minas Gerais (Microregion of Unaí and Paracatu microregion), MG, in 2017

Microrregião de Unaí	Quantidade Produzida (ton.)	Microrregião de Paracatu	Quantidade Produzida (ton.)
Arinos	-	Brasilândia de Minas	-
Bonfinópolis de Minas	1.309,500	Guarda-Mor	-
Cabeceira Grande	15.224,530	João Pinheiro	2.991,540
Buritis	815,000	Lagamar	18,240
Dom Bosco	-	Lagoa Grande	-
Formoso	512,280	Paracatu	1.666,740
Natalândia	-	Presidente Olegário	8.730,770
Unaí	11.210,730	São Gonçalo do Abaeté	60,000
Uruana de Minas	-	Varjão de Minas	3.037,985
-		Vazante	...

*Establishments over 50 feet in 30 sets. 2017
Source: Prepared by the authors, based on IBGE data (2017)

The mining regions do not obey a uniformity in relation to coffee cultivation indexes, nearby regions have very different levels of production. We can affirm this finding based on the table above, which describes coffee production comparing two microregions of the northwest of the state: Unaí and Paracatu, both located in the Northwest Mesoregion of the state.[4] Nevertheless, they are close to each other, the first micro-region has almost twice as much production as the second. The difference can be explained by some factors. The first is the size, the microregion of Unaí is larger than that of Paracatu, the economy of the first microregion is concentrated in agriculture and tourism, and finally, the microregion of Unaí has all the infrastructure that provides the planting of coffee, since, according to the data of the last census, the largest grain producer in the state and has specialized labor, good roads

[4] **Mesoregion of the Northwest from Mines General** Integrates the Municipalities of Microregion from Unaí e a Microregion Paracatu. The **Microregion of Unaí** integrates the following municipalities: Arinos, Bonfinópolis de Minas, Cabeceira Grande, Buritis, Dom Bosco, Formoso, Natalândia, Unaí and Uruana de Minas. The **Paracatu Microregion** integrates the following municipalities: Brasilândia de Minas, Guarda-Mor, João Pinheiro, Lagamar, Lagoa Grande, Paracatu, Presidente Olegário, São Gonçalo do Abaeté, Varjão de Minas and Vazante. The Capelinha Microrregion has also great plantations while a second micro-region is composed mostly by small producers, the coffee produced there is for local consumption.

for runoff, university poles of specific research for soil improvement, optimization in production, genetic improvements. On the other hand, the Paracatu microregion has its economy a little more diversified, such as mineral extraction, tourism, agriculture and energy supply. The region is lower and the development index of the cities belonging to this region is as a whole lower than the first.

It is emphasized something that, at first glance, points to a contradiction. The microregions of the Triângulo Mineiro/Alto Paranaíba (Uberlândia, Araxá and Uberaba), the Northwest of Minas Gerais (Paracatu and Unaí) and the South/Southwest of Minas Gerais (Varginha and São Sebastião do Paraíso) are among those with the highest Agricultural GDP in Minas Gerais (SILVA; SOURCES; FONTES, 2011), but none was efficient in maximizing productivity and increasing the number of people employed in family farming. Meanwhile, the microregions of Jequitinhonha (Diamantina) and Vale do Rio Doce (Ipatinga) are among the four microregions that have the lowest Agricultural GDP of Minas Gerais (SILVA; SOURCES; 2011) and are still considered efficient. While livestock farming is focused on extensive management, agricultural products are intended mainly for the subsistence of small producers.

There are specific differences between the two microregions analyzed here: Capelinha and Pedra Azul. The further north, the poorer and warmer the regions of the Vale do Jequitinhonha. Growing coffee for export requires a cold climate with rainy seasons, and the region does not meet these requirements. Thus, for coffee cultivation it is necessary to invest and this raises the costs. These regions inserted in the Vale do Jequitinhonha are regions that, historically and for various reasons, have been poorly developed and present, or presented in some periods, indexes referring to pockets of misery. The microregion of Pedra Azul is composed of four cities, while the microregion of Capelinha has 14 cities.

Table 4 – Coffee Grain Production (green) - Arabica (ton) in the Vale do Jequitinhonha Mesoregion (Capelinha Microregion and Pedra Azul Microregion), MG, in 2017

Capelinha Microregion	Quantity Produced (ton.)	Pedra Azul Microregion	Quantity Produced (ton.)
Angelândia	2.811,579	Cachoeira de Pajeú	3,975
Aricanduva	372,509	Comercinho	2,670
Berilo	1,150	Itaobim	-
Capelinha	4.560,704	Medina	0,690
Carbonita	0,495	Pedra Azul	4,640
Chapada do Norte	1,445		
Francisco Badaró	-		
Itamarandiba	937,790		
Jenipapo de Minas	0,900		
José Gonçalves de Minas	20,528		
Leme do Prado	0,490		
Minas Novas	243,273		
Turmalina	322,545		
Veredinha	18,810		

*Establishments over 50 feet in 30 sets. 2017
Source: Prepared by the authors, based on IBGE data (2017)

The last table that we will deal with in this block concerns two more mesoregions of Jequitinhonha[5], the microregion of Almenara and Araçuaí. They are further to the far north and, in general, have nearby production rates. In the two regions mentioned here, four cities that produce a high number of tons compared to other cities stand out. Two of them are in the microregion of Almenara: Divisópolis and Mata Verde. And two in the microregion of Araçuaí: Caraí and Novo Cruzeiro.

[5] The **Vale do Jequitinhonha** Mesoregion is located in the northeast of the state, consisting of 43 municipalities divided into 4 Microregions (Almenara, Araçuaí, Capelinha, Pedra Azul). The **Almenara Microregion** is formed by the municipalities of Almenara, Bandeira, Divisópolis, Felisburgo, Jacinto, Jequitinhonha, Joaíma, Jordânia, Mata Verde, Monte Formoso, Palmópolis, Rio do Prado, Rubim, Salto da Divisa, Santa Maria do Salto, Santo Antônio do Jacinto. The **Araçuaí Microregion** is formed by the cities of Araçuaí, Caraí, Coronel Murta, Itinga, Novo Cruzeiro, Padre Paraíso, Ponto dos Volantes and Virgem da Lapa. The **Capelinha Microregion** is formed by the municipalities of Angelândia, Aricanduva, Berilo, Capelinha, Carbonita, Chapada do Norte, Francisco Badaró, Itamarandiba, Jenipapo de Minas, José Gonçalves de Minas, Leme do Prado, Minas Novas, Turmalina, Veredinha. The **Pedra Azul Microregion** is formed by the municipalities of Cachoeira de Pajeú, Comercinho, Itaobim, Medina and Pedra Azul. There was a fifth micro-region, the Micro-region of Diamantina, which was relocated to the central region. With this microregion included, the Vale do Jequitinhonha would be formed by 51 municipalities. However, it is no longer remaining in this formation, according to the configuration of the government of the State of Minas Gerais. For knowledge, the **Microregion of Diamantina** is formed by the municipalities of Couto de Magalhães de Minas, Datas, Diamantina, Felício dos Santos, Gouveia, Presidente Kubitschek, São Gonçalo do Rio Preto, Senador Modestino Gonçalves.

Table 5 – Coffee Grain Production (green) - Arabica (ton) in the Vale do Jequitinhonha Mesoregion (Almenara Microregion and Araçuaí Microregion), MG, in 2017

Microregion of Almenara	Quantity Produced (ton.)	Araçuaí Microregion	Quantity Produced (ton.)
Almenara	80,940	Araçuaí	2,265
Bandeira	51,985	Caraí	357,474
Divisópolis	510,648	Coronel Murta	-
Felisburgo	17,840	Itinga	-
Jacinto	-	Novo Cruzeiro	624,687
Jequitinhonha	22,255	Padre Paraíso	58,939
Joaíma	-	Ponto dos Volantes	27,373
Jordânia	-	Virgem da Lapa	-
Mata Verde	329,855		
Monte Formoso	19,795		
Palmópolis	-		
Rio do Prado	-		
Rubim	-		
Salto da Divisa	-		
Santa Maria do Salto	0,820		
Santo Antônio do Jacinto	-		

*Establishments over 50 feet on 30 Sep. 2017
Source: Prepared by the authors, based on IBGE data (2017)

Table 6 – Coffee Grain Production (green) - Arabica (ton) in the Vale do Mucuri Mesoregion (Microregion of Teófilo Otoni and Nanuque Microregion), MG, in 2017

Teófilo Otoni Microregion	Quantity Produced (ton.)	Nanuque Microregion	Quantity Produced (ton.)
Ataléia	52,365	Águas Formosas	-
Catuji	64,345	Bertópolis	-
Franciscópolis	112,733	Carlos Chagas	-
Frei Gaspar	13,875	Crisólita	-
Itaipé	105,261	Fronteira dos Vales	-
Ladainha	117,074	Machacalis	-
Malacacheta	152,645	Nanuque	-
Novo Oriente de Minas	-	Santa Helena de Minas	-
Ouro Verde de Minas	48,369	Serra dos Aimorés	-
Pavão	-	Umburatiba	-

Poté	42,551		
Setubinha	624,316		
Teófilo Otoni	17,823		

*Establishments over 50 feet on 30 Sep. 2017
Source: Prepared by the authors, based on IBGE data (2017)

As demonstrated, we can analyze the production of Green Coffee in the Vale do Mucuri Mesoregion [6]. Coffee production in the microregion of Teófilo Otoni and, on the other hand, the microregion of Nanuque. While the first microregion has producers that produce between 48,000 tons of coffee and 152,000 tons, the Nanuque microregion has no producers of this type of crop. Currently, Nanuque has three main economic activities: livestock, wood production and sugar and alcohol activity. The agropastoral activity has been the main source of income for decades, other cities in the surrounding area are also dedicated to activities such as these and some small variations.

Profile of rural producers in Minas Gerais

Table 7 – Characterization and profile of rural producers in Minas Gerais.

Category of analysis	-	Establishments/Persons	Percentage
Sex	Male	518.582	85%
	Female	86.743	14%
Age	Under 34 years old	46.200	5%
	35-64 years old	394.477	60%
	Over 64 years old	164.648	34%
Color or race	White	345.117	57.01%
	Black	40.775	6,74%
	Yellow	2.516	0,42%
	Brown	215.363	35,58%
	Indigenous	1.554	0,26%
Busy Staff	With kinship tie	1.202.934	66%
	No kinship tie	633.419	34%

*Establishments over 50 feet on 30 Sep. 2017
Source: Prepared by the authors, based on IBGE data (2017)

[6] The **Vale do Mucuri Mesoregion** consists of 23 municipalities and two microregions: a) Microregion of Teófilo Otoni and b) Manuque Microregion. The **Teófilo Otoni Microregion** is formed by the municipalities of: Atalea, Catuji, Franciscópolis, Frei Gaspar, Itaipé, Ladainha, Malacacheta, Novo Oriente de Minas, Ouro Verde de Minas, Pavão, Poté, Setubinha and Teófilo Otoni. The **Manuque Microregion** is formed by the municipalities from: Águas Formosas, Bertópolis, Carlos Chagas, Crisólita, Fronteira dos Vales, Machacalis, Nanuque, Santa Helena de Minas, Serra dos Aimorés, Umburatiba.

As we can follow in the 2017 table regarding the profile of rural producers, it is noticeable, in an initial analysis, to note that most rural establishments belong to male people. The profile that stands out is of the Brazilian worker, man over 30 years old, mostly white, followed by browns, yellows and, finally, blacks and indigenous peoples.

To better understand the results of this table, it is important to do historical research and briefly discuss the issue of the Land Law. In the year 1850, the Land Law was enacted, which led to a transformation in the field. This law was a legal provision that sought to regulate the land issue in the Empire of Brazil. Generally speaking, it determined that the form of access to the state's discarded lands was through the purchase of the state. In other words, this is legislation specific to the land issue. The Land Law has made, since enactment, all land considered devotees (without regularization) property of the government. Furthermore, if a rural producer wanted access to land, it could be done through the purchase. The Brazilian rural population, especially from this time at the end of the 18th century, was a poor population that did not have purchasing power to have access to it, limiting ownership to a specific portion. This legislation was difficult or prevented from accessing the land by the black population, indigenous people and immigrants at first. Only in the South of Brazil there was a slightly milder occupation in relation to the rest of the country, because the government afraid of losing its land encouraged years later the minifundiums, opening for the commercialization of their lands mainly to immigrants.

The issue of land ownership in Brazil is often associated with inheritance, wealth, and even if unequal, over the years, new agents have been acquiring parts of land, but still the ones, mostly rural properties are hereditary. Prevented from having access to the land, with the legal provision of 1850, the population, mostly composed of rural, poor, black, indigenous population, riverside still suffers the impacts of this jurisdiction, because, in the modern Brazilian agrarian configuration, they own small and devalued parts of land in general.

This reinforces our agrarian structure, because in Brazil, there is more obstacle to having possession of a piece of land. These are some of the reasons that can explain in more depth this the table below and the numbers presented in it.

Table 8 – Characterization of the schooling of rural producers in Brazil

Schooling	Establishments	Percentage
Never went to school	64.211	10,57%
Literacy Class (CA)	33.754	5,56%
Literacy of young people and adults - AJA	3.916	0,64%
Old primary (elementary)	204.718	33,70%
Former gymnasia (middle 1st cycle)	41.629	6,85%
Regular elementary school or 1st grade.	105.112	17.30%
EJA and elementary school or 1st grade supplement	1.568	0,26%
Ancient scientific, classical, etc. (middle 2nd cycle)	5.387	0,89%
Regular High School or High School	78.142	12,86%
High school or high school technician	13.502	2,22%
EJA do EM	1.226	0,20%
Superior - graduation	49.273	8,11%
Master's or Doctorate	2.896	0,48%
Does not apply	2.232	0,371%

*Establishments over 50 feet on 30 Sep. 2017
Source: Prepared by the authors, based on IBGE data (2017)

The access by the population of the field to education was treated by the author Gonçalves (2016), in her text entitled: "The contribution of social movements to the effectiveness of field education: the experience of the National Education Program in agrarian reform". The author emphasizes the precarious situation of Brazilian education, more specifically, rural education. Even with legal support as collateral, this right still needs many actions to become a truly effective right. The effectiveness occurs in some ways, among them, public policies that can prioritize the best quality and the greatest applicability and reach of it in rural areas.

The consolidation of this right becomes viable with agrarian reform, which, for its consolidation and structuring, needs to rely on a quality education. This two-way road to happen again needs state support. State support is often weak and ubiquitous in these spaces, and the struggle of social movements is fundamental.

Although precarious, education in the rural space has gradually improved in recent years, but it should be emphasized that it is at the mercy of the political agendas of the elected executive in that given period. Therefore, social movements are important, because, according to Gonçalves (2016) they represent "legitimate social interests and are important political and social actors". The pressure they exert ensures not only the realization of

fundamental rights, but, above all, the development of democracy, which is so dear to modern societies.

The educational reality of the rural spaces has obstacles that determine all its operationality and expansion in our country. The main problem is the financial, since the resources passed on are not enough. It is important to highlight that, in addition to financial resources, specialized education professionals and, often, transportation to enable quality public access are also lacking.

In addition to these issues, another determining factor is the closure of public schools in the countryside. According to the global out-of-school student initiative report released in 2012 by UNICEF, in 10 years, 37,000 rural schools were closed. Education professionals are unanimous in stating that in the area of education, there is often a lack of teaching professionals in schools, in addition to the absence of other issues, such as a political pedagogical project developed by these teachers, which emphasizes and works sufficiently the specificities of the population of the rural space. It is also considered important the training of teachers for the education of the rural area and not in the rural area. In this context, it is very common for serial classes to exist. With this, the teacher needs to develop a theme that articulates all these students from different grades who occupy the same space.

Characterization of rural establishments in Brazil

From the analyses carried out using the data from the last census, it was possible to verify that the majority of rural establishments in the country are run by small and medium-sized rural producers. It is not possible, from the readings made on the subject, to define a type of family farmer in Brazil, because there are several whose characteristics are diverse. However, it is possible to delimit common characteristics in these rural properties, based especially on the Brazilian legal framework, the first of which is that the labor force is essentially familiar, whose economy of this unit revolves around agriculture or livestock (few animals) developing more sustainable and less market-based processes.

Table 9 – Characterization of establishments in Brazil

Category of analysis	Dimension	Establishments	Percentage
Use of fertilization	Does not use	261.609	43%
	Chemical fertilization	176.016	29%
	Organic fertilization	590.739	12%
	Chemical and organic fertilization	94.809	16%
Use of pesticides	Does not use	440.387	64%
	Uses	166.431	27%
	Did not need in the period	14.960	16%
Soil tillage system	Conventional cultivation	131.052	41%
	Minimum cultivation	146.945	46%
	No-till in straw	44.294	14%
Financing	Got	96.352	16%
	Did not obtain	511.205	84%
Purpose of Financing	Investment	62.763	51%
	Costing	42.672	35%
	Maintenance	16.062	13%
	Marketing	1.691	1%
Government Funding	Yes	60.007	62%
	No	37.458	38%
Programs	Pronaf	45.149	81,90%
	Pronamp	2.899	4,80%
	Another program	7.638	12,28%

*Establishments over 50 feet on 30 Sep. 2017
Source: Prepared by the authors, based on IBGE data (2017)

The above data show that the non-use of fertilizers prevails among establishments and occupies more than half of them, signaling a total of 58%. This makes the other data justified, because it presents that, in large part, small farmers do not use pesticides, this being higher than what signals the use by the same group, which usually occurs in large monoculture farms.

Most Brazilian rural establishments did not access rural credit, because this public policy is still aimed at a specific group with greater purchasing power. Financing and access to government public policies require that rural family units be legalized, which is not the case in most of them in Brazil, besides requiring a minimum amount of income, which makes it impossible for many farmers to resort to these loans.

To better understand the table of the characterization of rural establishments, it is of

paramount importance to discuss a little about the three generations of public policies in Brazil and on their development, especially PRONAF. Although there are currently new places that grow coffee, the largest plantations are old, have an importance in the history of the country, in politics and in the economy, and, in a way, these coffee barons who later became the big producers, landowners were those producers supported by the first policies of PRONAF and benefit to this day from them.

Historically, in the Brazilian scenario, public policies created and effected in the rural world were made benefit of the medium and large property. The entire project to modernize Brazilian agriculture that took place in the 1960s, 70s and 1980s had a strong participation of the Brazilian state. Over these years, it is worth highlighting five important public policies in this scenario: (1) Rural Credit, (2) Agricultural Insurance, (3) Technical assistance and rural extension that originated the Embater, (4) the Agricultural Research that was created by Embrapa and finally (5) Minimum Price Policy. This was the package of public policies created in the first decades that greatly benefited large and medium-sized producers, especially southern farmers, export producers and those whose merchandise was essential for the agroindustry.

Only from the 1990s, public policies aimed at family farming in the country were implemented. Among them, we can highlight the creation of the National Policy for Strengthening Family Agriculture, PRONAF. In 1995, this creation was the result of social mobilization led by the union movements largely organized around Grito da Terra Brasil.

As PRONAF gained more space on the political agenda of governments and that, proportionally, civil society was taking knowledge and recognition of family farming, there was a greater set of institutional and public policy changes. We can score some, as in 1989, with the creation of the Ministry of Agrarian Development (MDA), which was extinguished in 2016. Since 2003, there has been the creation of a broad set of public policies created in Brazil. It is important to emphasize the fact that these public policies, to some extent, have tried to cover the agricultural, social, and infrastructure dimensions. The consequence was the reduction of rural poverty and hunger in a significant way in this period after the set of public policies.

The first set of measures created (such as PRONAF) were measures directed to production. When PRONAF was elaborated, it was soon realized that only this program could reproduce exclusion mechanisms within family farming. Thus, in 1997, the emergence of a combination of public policies with the most social bias began: Bolsa Família, Fome

Zero and Territorial Policies (created in 2008 the Territories of Citizenship), with emphasis on the structuring of economically vulnerable territories and socially.

The public policies elaborated after 2003, in their entirety, articulate and highlight food and nutritional security, besides focusing on the sustainability of the rural environment. This new approach is known by rural literature as the third generation of public policies. The example of public policies created in the third wave showed the PAA (Food Acquisition Program). The change that occurred in the National School Feeding Program (2009) in which at least 30% of food from Family Agriculture should be incorporated, and finally the Price Guarantee Policy for sociobiodiversity products. This set (third wave) gives a greater focus to sustainability and food security.

The first generation of public policies was intended to make Brazil produce more and more to compete in the foreign market, with this, the State injected a lot of money so that we could produce and industrialize the country. Public policies were elaborated from the 1960s, mainly developed with the objective of giving rural credits, bringing university research to the field of rural production in search of production improvement. Secondly, PRONAMP is a financing for investments by medium-sized rural producers in agricultural activities.

Costing credits are available when the resources are intended to cover usual expenses of production cycles, from the purchase of inputs to the harvesting phase. Investment credits, on the other hand, are applied to durable goods or services, the benefits of which have repercussions for many years. Finally, marketing credits provide rural producers and their cooperatives with the resources necessary for the adoption of mechanisms that supply and take harvest storage during periods of falling prices.

Table 10 – Characterization of land use in Brazil

Category of analysis	Dimension	Hectares	Percentage
Land use	Pastures	19.371.751.000	51%
	Forests	10.295.329.000	27%
	Crops	5.770.072.000	15%
	Other	2.727.536.000	8%
Crops	Temporary	4.015.732	70%
	Permanent	1.740.888	30%
Pastures	Planted in good condition	11.738.687	61%
	Natural	5.572.259	29%
	Planted in poor condition	2.030.805	10%
Forests and/or Forests	Natural (permanent preservation or legal reserve)	1.208.945	12%
	Natural	7.078.269	69%
	Planted forests	2.012.115	20%

Source: Prepared by the authors, based on IBGE data (2017)

The table above refers to the use of these lands in rural Minas Gerais. It is possible to understand that most of them are destined for grazing, because beef is one of the most important export products in the country and occupies most, since it requires space and is a cheaper form of investment, because the farmer can "drop the oxen", as rural populations say, and let nature do the work.

The crops are in third place and indicate the existence mainly of large commodity farms and small production units, which, as was seen earlier (mainly in relation to coffee), highlight their economic importance. Brazilian pastures are divided into three categories: natural, native and artificial. They are used in properties depending on the creation, soil and climate of the region and conditions of the property. The natural pastures are the original vegetations, in them we find species of herbaceous, grasses, non-grasses and shrubs. Artificial pasture is composed of exotic or native species, where the original vegetation no longer exists. This type of pasture is divided into permanent that can last up to thirty years and in temporary that can last six months.

The choice of the type of forage used will depend on the climate, soil, type of herd and conditions of the owner. For greater success in choosing, it is good to consult a professional, who will indicate the types of forage that best suit your property.

These are the three types of pastures prevalent in Brazilian rural properties, with a view to cattle feeding. The origin or use of each of them, however, depends on determining factors such as the type of rearing, land use and climate. In natural pastures, the vegetation

originates from the region, containing species diversified as herbaceous, grasses, non-grasses and shrubs. On the other hand, native pastures refer to species that arise spontaneously. These have nutritional value and arise when the original vegetation is destroyed. We also have artificial pasture, cultivated by man, through exotic species and varieties from other regions.

Conclusion

We can't tell the history of Brazil without mentioning the coffee culture. Coffee production and its developments in the national territory were decisive for the adoption of fiscal policies, of government policies for the benefit of the culture that over the years became the main activity of the country after the sugar cycle. Known as "green gold" is still today the main agricultural export product of Brazil.

Despite presenting high productivity rates in ten Brazilian states, coffee production stands out in Minas Gerais territory, which accounts for almost half of the national production, the highest concentration of producing farms is in the south of the state. Despite contributing significantly to the national GDP, coffee production in Minas Gerais isuneven.

We can see, throughout the text, that coffee culture is produced both on large farms and on small farms. However, the lack of technology, the little incentive of the government and the small spaces to produce are responsible for directly interfering in productivity indexes. The cultivation of coffee, as well as so many other crops in the country, shows that the national coffee production is focused on foreign trade, while domestic consumption is largely fueled by family farming that is situated in smaller spaces, not always in good condition, using little or no technology.

With the data obtained from the census analysis, it was possible to build a profile of family farmers from Minas Gerais. Most of them are men who have completed the old primary, many of these know just write their name and do not understand everything they read. Furthermore, it is worth mentioning that education is fundamental in a context of exclusion and geographical location, as it presents the producer with greater possibilities.

Regarding the preservation and conservation of the environment, we know that agribusiness is currently the greatest enemy of preservation areas. The use of pesticides is a point that deserves to be discussed, because we identified that 64% of these producers do not make the recurrent use of agrochemicals. In general, the low use of pesticides enables more sustainable land management, decreases the possibility of recurrent pest appearance and

river contamination.

The percentage of access of public policies by the family farmer accused in the Agricultural Census reveals that form of production consumes most of the financial resources. The non-access to resources derived from this public policy causes these actors to face greater risks, have greater losses and do not count on technical assistance and other facilitators for the production and commercialization of this product.

In a view, the way to reduce this unequal scenario is part of the effectiveness for the democratization of the land, because it allows the democratization of the field, the insertion of new economic agents and the turnover of capital. In addition to these points, the creation and performance by the government is extremely important, acting in favor of the elaboration of public policies that support the small producer and give him conditions to produce in greater and better quantity.

REFERENCES

CARVALHO J. C. de. **Efeito de sistemas de colheita na qualidade do café (Coffea arabica L.).** 2002. 140 f. Dissertação (Mestrado em Ciência dos Alimentos) – Universidade Federal de Lavras, Lavras, 2002.

CONAB. A safra paulista de café cresce mais de 29%. **AgênciaBrasil**, São Paulo, 2018. Available: https://agenciabrasil.ebc.com.br/economia/noticia/2018-12/safra-paulista-de-cafe-cresce-mais-de-29. Access: 09 June 2019.

CONAB. Companhia Nacional de Abastecimento. **Agricultura Familiar**. Brasília, DF: CONAB, 2017. Available: https://www.conab.gov.br/. Access: 09 June 2019.

FREITAS, M. C. (org.) **Historiografia brasileira em perspectiva**. São Paulo: Contexto, 2003.

GONÇALVES, E. D. A contribuição dos movimentos sociais para a efetivação da educação do campo: a experiência do Programa Nacional de Educação na reformaagrária. **Revista Educação e Sociedade**, Campinas, v. 37, n. 135, p. 371-389, abr./jun. 2016. Available: http://www.scielo.br/pdf/es/v37n135/1678-4626-es-37-135-00371.pdf. Access: 17 Mar. 2019.

IBGE. Instituto Brasileiro de Geografia e Estatística. Censo Agropecuário. Brasília, DF: IBGE, 2017. Available: https://censos.ibge.gov.br/agro/2017. Access: 06 May 2019.

MILLIET, S. **Roteiro do café e outros ensaios:** Contribuição para o estudo da história econômica e social do Brasil. 4. ed. São Paulo: Hucitec, 1982.

MORAES, A. C. R. **A fazenda de café**. 3. ed. São Paulo: Ática, 1989.

MOREIRA, A. C. **História do Café no Brasil.** São Paulo: Magma Editora Cultural, 2007.

Rural Pecuária. Brasil: Mapa representativo das Regiões produtoras de Café. São José do Rio Preto: Rural Pecuária, 2005. Available: http://ruralpecuaria.com.br/tecnologia-e-manejo/cafe/brasil- mapa-representativo-das-regioes-produtoras-de-cafe.html. Access: 09 June 2019.

SOUZA, S. M. C. **O café (Coffea arábica L.) na região Sul de Minas Gerais:** Relação da qualidade com fatores ambientais, estruturais e tecnológicos. 1996. 171 f. Tese (Doutorado em Fitotecnia) – Universidade Federal de Lavras, Lavras, 1996.

How to reference this article

ANTUNES, L. D.; REDIN, E. How about a cup of coffee? Family farming and corporate farming in coffee production in Minas Gerais. **Rev. Sem Aspas**, Araraquara, v. 11, n. 00, e022008, Jan./Dec. 2022. e-ISSN: 2358-4238. DOI: https://doi.org/10.29373/sas.v11i00.15356

Submitted: 09/08/2021
Revisions required: 25/09/2021
Approved: 10/11/2021
Published: 30/06/2022