ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 09, Issue, 12, pp. 32170-32175, December, 2019

RESEARCH ARTICLE OPEN ACCESS

FAMILY AGRICULTURE AND SUSTAINABILITY IN MIRANGABA STREET FAIR, BAHIA, BRAZIL

***[1]Raisa Dias da Costa and [2]Cristiana de Cerqueira Silva-Santana**

[1]Specialist in Environment, Education and Sustainability in the Semiarid, State University of Bahia (UNEB), Senhor do Bonfim, BA, Brazil
[2]Dr. in Geology, Associate Professor at State University of Bahia (UNEB), Senhor do Bonfim, BA, Brazil.BR 407, km 127, s/n, Campus Universitário da UNEB, Senhor do Bonfim, Bahia, Brazil

ARTICLE INFO

Article History:
Received 20th September, 2019
Received in revised form
10th October, 2019
Accepted 06th November, 2019
Published online 30th December, 2019

Key Words:
Agriculture, Rural Environment, Quilombola communities, Sustainable development, Food sustainability.

***Corresponidng author: Raisa Dias da Costa,**

ABSTRACT

The street fairs of northeastern Brazil focus on the distribution of basic products, becoming important spaces for social integration, with family farming as the basis for the production of street fairs in municipalities smaller than 20 thousand inhabitants. The relationship between street markets and family farming was the basis of this research, which aims to characterize the fair, outline the profile of the fairgrounds, as well as analyze the process of production and marketing of family farming in the street fair of Mirangaba, Bahia, Brazil, from the perspective of sustainable development. Information was collected from interviews. It was found that there is a great role of women in this space, that local quilombola communities play an important role in the food supply for the fair, that Mirangaba farmers maintain sustainable practices regarding agricultural activities and the use of surplus production, guaranteed by family use, reciprocity between neighbors and other sustainable practices, but lacking more technical support and public encouragement.

Citation: Raisa Dias da Costa and Cristiana de Cerqueira Silva-Santana. 2019. "Family agriculture and sustainability in mirangaba street fair, bahia, Brazil", *International Journal of Development Research*, 09, (12), 32170-32175.

INTRODUCTION

The street fairs of the Brazilian territory constitute one of the oldest forms of commercialization of agricultural products, with their own identity, traditions and cultures. They resist time since the colonization period. They are important for supplying small communities and for selling the goods of local producers and farmers (Godoy, 2007). During the eighteenth and nineteenth centuries, the street fairs in the Northeast of Brazil traded cattle, this economic activity favored the expansion and occupation of this territory, allowing the emergence of villages and towns. According to Lima and Sampaio (2009), several cities in the northeastern interior were known for their fairs and trade centers, standing out in Bahia, the city of Feira de Santana. Street fairs are part of a category of retail market that usually takes place on city streets and squares. They are presented weekly and trade in foodstuffs and basic products. They occur in large urban centers as well as in small towns, and some of these have historical, tourist and commercial attractions. Thus, the street fair is a space for integration between communities, which allow social relations with individuals of different classes, backgrounds, ages and interests (Mascarenhas, Dolzani, 2008). Northeastern Brazilian street fairs sell basic and diverse products and currently also include agribusiness products resulting from the globalization of markets. However, these street fairs are still an important selling point for products generated by Family Farming. Family farming is a designation that includes agricultural activities on small farms in Brazil. Family farming is generally carried out by family groups, small associations and cooperatives. Family farmers, as pointed out by Portugal (2004, p.1), "diversify crops to reduce costs, increase incomes and take advantage of opportunities for environmental supply and labor availability". Portugal (op. Cit.) adds that family farming is very important for the country, as it accounts for 60% of the production of basic products of the Brazilian diet, such as beans, rice, corn, vegetables, cassava and small animals. For the Brazilian Northeast this type of activity is very important. In the early 2000s approximately 50% of family farms were headquartered in northeastern Brazil. The segment owned 20% of the land and accounted for 30% of global production. Currently, activities related to family farming play an important role in the maintenance and supply of foreign markets, domestic and street markets, contributing to sustainable development and also to the generation of jobs

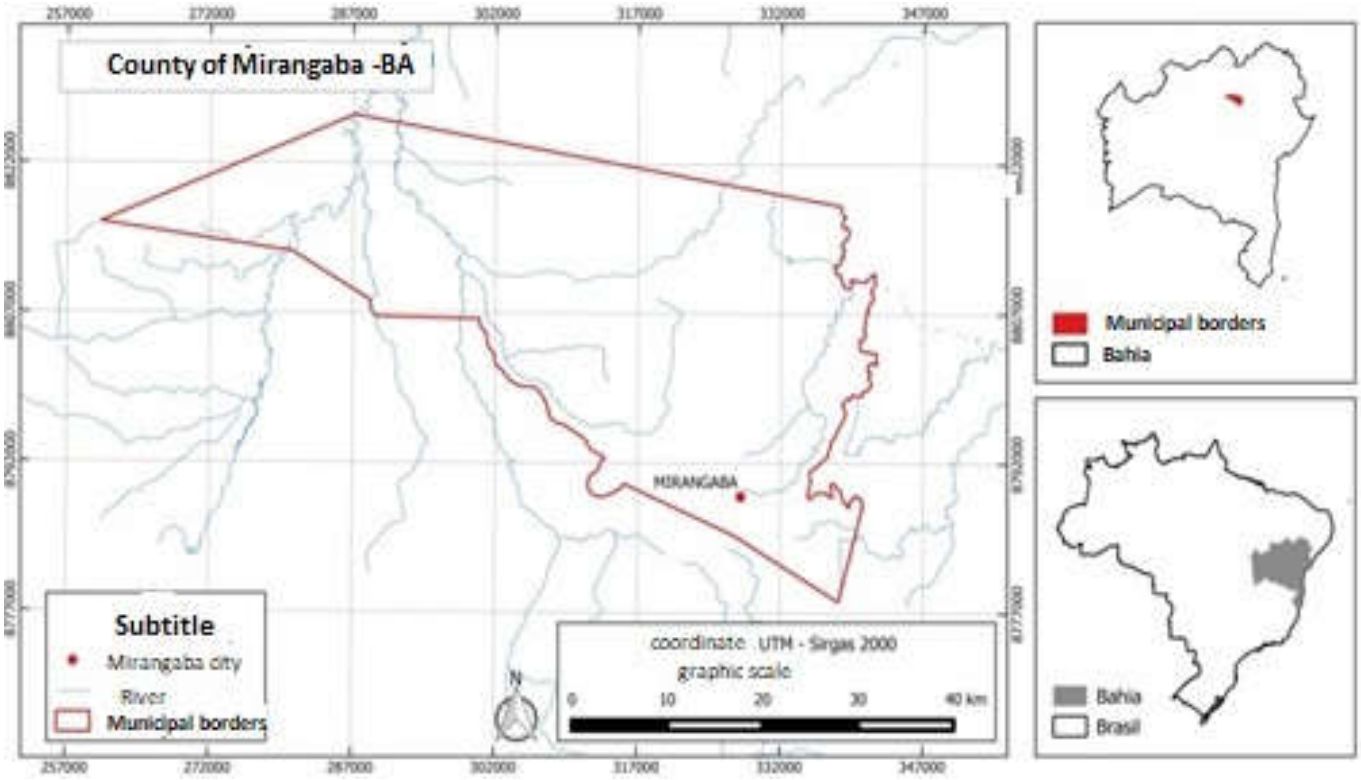

Figure 1. Location of the survey area Source: QGIS. Design: Nielton Nunes

and income. The agricultural sector is very important in Brazil; In this sense, in 2006, the Brazilian Institute of Geography and Statistics (IBGE) expands the country's agricultural census. In 2006 the agricultural sense began to collect important information such as the number of families practicing family farming, the characterization of farmers and farms, the types of agricultural products produced by these families, among other variables. The census generates an important database about the reality of agriculture and family farming in Brazil. The 2017 census is the latest that presents tabulated and published data and indicates that there are over 5 million agricultural establishments in the country. The survey found that 77% of these farms are classified as family farms, comprising about 3.9 million farms. In addition, family farming accounted for 23% of all Brazilian agricultural production, generating a collection of RS $ 107 billion per year, equivalent to US $ 25 billion. Also according to data collected by IBGE in 2017, family farming employs more than 10 million people, representing 67% of the total number of people employed in agriculture (IBGE, 2017). However, when these 2017 data are compared to the 2006 census, they show a 9.5% reduction in the number of households classified as family farms (IBGE, 2017). This decrease in the number of family farms is a problem that has been identified in the past. Buainain *et al*. (2003) have already mentioned such a situation and showed that the problem of family farming was related to poor distribution of land ownership among family farmers. Most family farmers own plots under 5 hectares, a size that makes sustainable exploitation difficult in farms. Although family farming presents problems, it is of fundamental importance for the economic development of the country. Family farming is especially important for northeastern Brazil, whether at the municipal or state levels. In northeastern Brazil, family farming is a fundamental part of generating income for the families involved, reducing rural exodus and improving sustainable production practices.

In this perspective, street fairs act as a channel for the commercialization of family farmers' production. Thinking about this relationship between street fairs as a space for family farming expression, this research was developed. In this sense, the objectives of this study are: to characterize socially and economically the people who sell products in the street fair of Mirangaba-Ba city headquarters; to analyze the process of production and sale of family farming products at this street fair, from the perspective of sustainable development.

MATERIALS AND METHODS

The Brazilian northeast is the geographic space of this research. The study area is the municipality of Mirangaba (Figure 1). This municipality is located in the north center of the state of Bahia and has an estimated population of 18,338 people for the year 2019 (IBGE, 2015). It has a semi-arid and dry to humid climate. There are three rivers in the municipality: Rio Salitre, which belongs to the São Francisco River Basin, the Itapicuru-Açu River and the Black River, which are part of the Itapicuru River Basin (CPRM, 2005). For the accomplishment of the research a qualitative approach was used, but also using tabulation and percentage calculations of the results. The information was collected through interviews, with a previously prepared script, presenting a set of questions that aimed to identify the social and cultural characteristics of the marketers, the goods they market, the origin of the products sold, the relationship with family farming, as well as percentage of organic vegetable production. The criterion used for choosing the interviewees was the presence of the marketer on the day of the interview and his willingness to answer the questions. Thus, of the 42 fair traders registered with the Municipal Secretary of Agriculture of the municipality, 26 fair traders were interviewed.

RESULTS AND DISCUSSION

According to IBGE, the Mirangaba street fair appeared in the year 1904, thus being a centenary fair. The fair takes place on Fridays, from 05:00 in the morning, in Forró Municipal Square and ends at 13:00 hours. The fair stalls are randomly distributed and made by the marketers themselves. Some tents are placed in rows next to each other. The fair stands are made of wood, or with improvised structures in plastic boxes. Some marketers sell their products on tarps on the floor and even in the trunk of cars (Figure 2). The fair shows the inadequacy of the conditions of the tents and infrastructure for sale. These aspects are also found in other family farming fairs, as observed by Peccini *et al* (2015) in a study conducted in the state of Paraná.

Figure 2. Infrastructure of Mirangaba Street Fair, Bahia, Brazil.Photos: Raisa Dias, 2019

In the street fair is a large part of the family farming production of the municipality. Of the 26 marketers interviewed, 46% were men and 54% women. This data shows the relevance of women in the work of marketing products at the street fair. The large female presence at this fair shows a configuration of the autonomy of these women within the local rural development, since, according to Garcia (1992) this is a traditionally male space, especially in the Northeast fairs. Anacleto *et al*. (2016, p.2) emphasizes that activities related to the rural context focused on a new panorama, as women began to assume an important role in income generation and family economic development. However, as Vidal (2011, p. 1138) points out: "The traditional gender division hides the proportions of women's economic participation in the construction of rural wealth and its consequent development". Gomes *et al*. (2016) also analyzes the increase of female participation in fairs as a strategy to relate the role of women with healthy foods, thus establishing a link of trust in the relationship between consumers and marketers. Most of the fairgrounds come from the municipality of Mirangaba, with 60.2% living in the rural area and 15.2% from the municipality headquarters. Another 24.6% live in nearby municipalities, such as Jacobina, Quixabeira and Ourolândia. It was found that percentage of residents in Mirangaba, 65% are family farmers and cultivate within quilombola territories. Even those with fixed residence at the headquarters also practice agriculture in the quilombola territories. The farms belong to the quilombola communities of Soledade, Santa Cruz, Palmeira and TrêsCoqueiros. The livelihood base through family farming is very significant in Brazil, especially in municipalities with less than 20 thousand inhabitants, as is the case of Mirangaba (IBGE, 2017). In a studyby Silva and Nascimento (2010), Mirangaba hasten quilombola communitiescertifiedbythe Palmares Cultural Foundation, namely: Jatobá, Palmeira, Santa Cruz, Soledade, Dionisia, Olhos D'Agua, Nuguaçu, Ponto Alegre, Almeida and Coqueiro. Coqueiro's population basically survives from family farming, especially from banana, coffee, rice, corn and cassava. This production is made for its own consumption, for sale at the Mirangaba street fair and for other street fairs in neighboring cities.

In northeastern Brazil, family farming emerged in the colonial period and to date is a significant source of subsistence and financial resources in quilombola communities (Silva, 2017). Regarding education, 50% did not complete elementary school, 16.7% completed elementary school, 33.3% succeeded in high school and 7% did not attend school. This data shows the low level of education of the marketers. Poor education is common among people in this segment of activities, as pointed out by Portugal (2004), family farmers usually have a low level of education. As for age, there is a significant variation between 21 and 80 years for both men and women. However, it is observed that 88.47% is in the age group of 30 years, of these, 69.23% are over 40 years, indicating that this profession is more characterized among the elderly. The percentage of professionals over 60 years old who trade agricultural products at the street fair is 34.61%. This data is directly related to the exodus of young people from the countryside to the urban environment, which is an old Brazilian reality. Some Brazilian municipalities try to reduce the exodus from the countryside by strengthening family farming and investing in rural communities. However, this is still a difficult problem to solve because "incentives and public policies for family farming are in practice bureaucratic, making them inaccessible to most farmers (Santos *et al*. 2018, p. 214). For Peccini *et al*. (2015, p. 6) "Some families are able to expand their production to the point of guaranteeing the permanence of their children in the activity", however, there is a lack of incentives to "increase the production and marketing by the street fair, generating a greater source of income. capable of enabling young people to continue in the countryside".

Among the people who sell agricultural products at the fair, 11.5% have another profession as drivers and teachers, while 35% are retired. In this sense, almost half of the professionals have a salary supplement in this activity. According to these people, it is necessary to supplement the salary by performing another function, such as selling products at the street fair. These men and women explain that trade fluctuates in high and low prices, a fact that undermines the money of the month. In this sense, the street fair is for these people an extra space to increase their money and thus better support their families.

The fair is an opportunity for the unemployed, retired, with low education and low purchasing power, as it provides extra remuneration and equivalent to the resources invested. These characteristics define the informal economy characterized by small inventory, low cost and no advertising investment (Model and Denardin, 2014). The fair is an opportunity for the unemployed, retired, with low education and low purchasing power, as it provides extra remuneration and equivalent to the resources invested. These characteristics define the informal economy characterized by small inventory, low cost and no advertising investment (Model and Denardin, 2014).

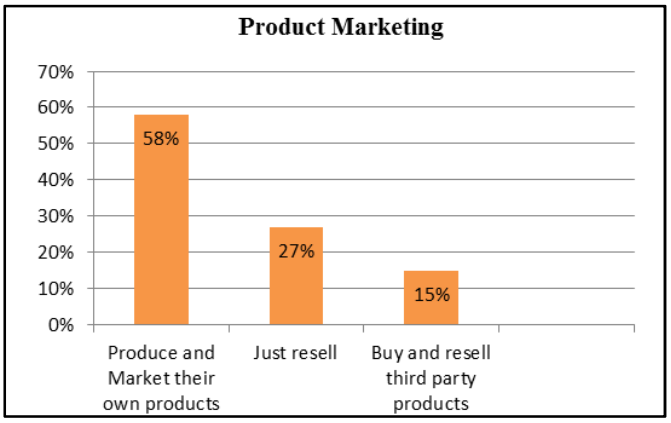

Figure 3. Different ways of marketing products at the Mirangabastreet fair, Bahia, Brazil

As we have noted, local agricultural production exceeds the purchase of agricultural produce from other locations, an important point in local microeconomics. However, reselling products purchased from third parties helps to diversify products sold at the fair because not all items are grown or produced in the region. In 2017, IBGE released a list of the main agricultural products produced in the municipality of Mirangaba, such as: Banana, Onion, Cassava, Sisal or Agave and Corn (grain) (IBGE, 2017). During this research, the trade of fruits and vegetables, but also of other agricultural products, including products acquired by forest extraction, such as the extraction of licuri fruits, honey and straw for the manufacture of brooms was identified. In total, 91 types of agricultural products sold at the street fair were quantified, of which 59 are produced exclusively by family farmers and artisanal producers in the region. These regional artisanal productions refer to roll tobacco and jams from the village of Caatinga do Moura (belonging to the municipality of Jacobina, which is near Mirangaba). Another 18 agricultural products are produced on local family farms, but also purchased at supply centers. Finally, 14 agricultural products are purchased only from supply centers, as shown in Table 1.

As a strategy for maintaining a constant supply of agricultural products when food cannot be produced or when it is out of harvest, farmers turn to supply and distribution centers elsewhere. These are the cases, for example, of grape, plum, kiwi, apple, strawberry provided by the Juazeiro, Feira de Santana and Jacobina (CEASA) Supply Centers. Although chard, cauliflower and cabbage are vegetables adapted to the climate of the region, family farmers prefer not to grow them because, according to the statements, these vegetables need many pesticides. Unfortunately, however, the practice of shopping at supply centers results in the placement of pesticide-containing products at the street fair. When asked about the use of vegetables that are not sold at the Mirangaba street fair, farmers replied that they use these products for: street fairs in other cities, donations, their own consumption, animal feed and also for the fertilization of their gardens. (Figure 4).

Table 1. Family farming products and other products sold at the Mirangaba street fair, Bahia, Brazil

FAMILY AGRICULTURE PRODUCTS AND REGIONAL HANDMADE PRODUCTS	Avocado, Acerola, Lettuce, Garlic, Red rice, Avoador (manioc cookie), Banana, Beiju, Cookies, Cakes, Coffee beans, Caja, Cashew, Cinnamon, Nuts, Chive, Chayote, Coriander, Cabbage, Banana jam, Guava jam, Cassava flour, Bean, Tobacco, Jackfruit, Jenipapo, Jilo, Licuri, Manioc, Butter, Sandita, Honey, Watermelon, Corn, Babassu Coconut Oil, Eggs, Cucumber, Chili, Pepper, Custard apple, Cheese, Okra, Creamy cheese, Pomegranate, Arugula, Oil soap, Parsley, Sequilhos, Seriguela, Tamarind, Tangerine, Fresh tapioca, Dry tapioca, Seasonings, Umbu, Annatto, Straw broom.
FAMILY AGRICULTURE AND AGRIBUSINESS PRODUCTS	Zucchini, Pumpkin, Pineapple, Yams, Eggplant, Beet, White onion, Purple Onion, Carrot, Coconut, Guava, Orange, Lemon, Papaya, Mango, Passion fruit, Tomato, String bean.
AGRIBUSINESS PRODUCTS	Chard, Peanut, Prune, English potato, Cauliflower, Clove, Soursop, Kiwi, Apple, Strawberry, Pear, Black pepper, Cabbage, Grape.

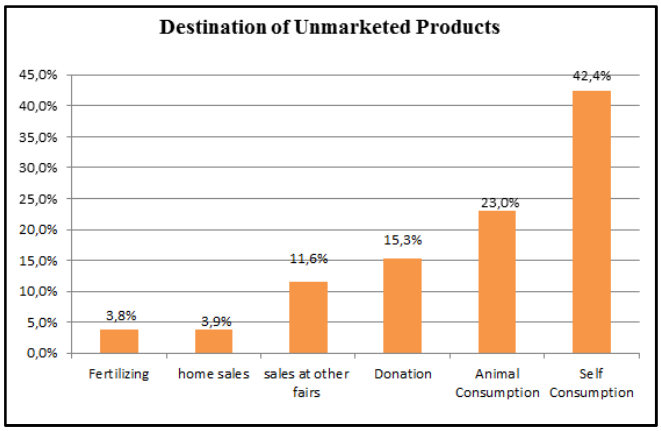

Figure 4. Uses of surplus production from family farms sold at Mirangaba Street Fair, Bahia, Brazil

The destination of surpluses in the street fair studied is different from the destination given to goods by large markets and monoculture agricultural companies. In the latter case, it is common to discard products when left over or at very low prices. In the study conducted at Mirangaba Street Fair, a practice based on sustainability was observed as a survival strategy, with the reuse of surplus. The practices that exist among street market traders are not only for capitalist purposes, but also based on relationships of their own use, reuse for animal consumption and reciprocal donations and exchanges, which are practices of environmental sustainability and food sustainability. About these flows of donations and exchanges Tonezer et al. (2008) highlight that such actions accentuate ties of sociability and reciprocity of favors in the communities that practice them. When asked if they received technical assistance to grow vegetables they sell at the fair, only 11.5% of family farmers reported receiving technical support from the National Rural Learning Service (SENAR). These 11.5% correspond exactly to organic farmers. Another 38.4% of respondents reported receiving government

incentives, such as: crop guarantee. Half (50.1%) of farmers reported no government incentive or technical assistance, thus continuing their traditional farming practices. This is related to the use of fertilizers among farmers, as 82% use natural manure and compost produced from surplus agricultural production. The remaining 18% use chemical fertilizers purchased from agricultural stores. No family farm practitioner has reported pesticide use on their crops. With the possibility of finding natural products, the street fair has become an important attraction for the marketing of organic products. Thus, among the interviewees, all heard about organic production, but only 11.5% of them are certified as organic producers. Certification is a way to ensure more food safety for consumers. In addition, these farmers are part of the Piedmont Agroecological Solidarity Fairs Network (REFA), whose main objective is to market healthy food based on the principles of agroecology. According to Fernandes Jr (2005), 90% of Brazil's organic production comes from family farming, with growth of 30% per year, stimulated by the market of consumers increasingly interested in healthy products with high nutritional values. 2017 agricultural census data show that in Brazil there was a 1000% increase in the number of certified organic farms, which shows an increase from 5,106 to 68,716 establishments (IBGE, 2017). For Stringheta and Muniz (2003), organic agriculture seeks to prioritize the preservation of the environment, conservation of biodiversity and biological soil cycles, because the great differential is in the form of cultivation, making the products natural and free of pesticides. For Stoffel et al (2014), sustainability in small family farming communities would be related to their ability to conserve and guarantee quality of life. These communities seek to maintain natural resources for generations to come, while respecting and extending natural soil cycles in order to achieve sustainable future results.

CONCLUSION

After conducting the research it is possible to see the importance of family farming for regional development, highlighting its relevance in the current socioeconomic situation. It is important to highlight the role of women in this space, whether as a farmer or marketer, showing the important pursuit of rural women for their autonomy in spaces that were traditionally occupied by men. Historically black communities play the role of supplying food to the Brazilian population, this reality is still observed in Mirangaba, because most of the products of the street fair come from quilombola territories of the municipality. This data shows two realities, the first is the importance of quilombola communities as a base of food production in the municipality of Mirangaba, the second is that the rise of these communities in relation to other forms of family support is still small, being mostly restricted to farming and breeding for sale. Especially these data on the relationship of local quilombolacommunities with the street fair and other forms of family livelihood need to be better studied and understood. The family farming community of Mirangaba maintains sustainable practices regarding the process of cultivation without pesticides and in the use of all production, because there is no waste of what is planted. Sustainability is feasible in the use of surplus production, since the use of this portion of products is guaranteed for family use, exchanges and reciprocity between neighbors, use as animal feed and, in addition, what remains is still organic fertilizer. The use of certified organic agriculture has very low rates in the municipality of Mirangaba, which may result from little incentive and guidance to small producers. We emphasize the need for further studies on family farming and organic production in the Bahian semiarid.

REFERENCES

Anacleto A, Coelho AP, Curvelo EBC 2016. As mulheres empreendedoras e as feiras livres no litoral do Paraná. Faz Ciência, v. 18, n. 27, p. 118-139.

Buainain AM, Rombro AR, Guanzirou C 2003. Agricultura familiar e o novo mundo rural. Revista Sociologias, Porto Alegre, v. 5, n. 10, p. 312-327.

CPRM - Serviço Geológico do Brasil 2005. Projeto cadastro de fontes de abastecimento por água subterrânea – Bahia, Diagnóstico do Município de Mirangaba.

Fernandes Jr O 2005. Fiscais da saúde dos alimentos – Empresa de Botucatu é exemplo de certificadora de produtos orgânicos. Desafios do Desenvolvimento, IPEA. Ano2, Edição 12. Disponível em: <http://desafios. ipea.gov.br/index.php?option=com_content&view=article &id=1417:catid=28&Itemid=23>. Acesso em: 20 nov. 2019.

Garcia MFO 1992. Segundo sexo do comércio: camponesas e negócio no Nordeste do Brasil. Revista Brasileira de Ciências Sociais, n. 19, p. 84-102.

Godoy YI, Anjos FS 2007. A importância das feiras livres ecológicas: um espaço de trocas e saberes da economia local. Revista Brasileira de Agroecologia, v.2, n.1, p. 364-368.

Gomes M, Lucena EARM, Mandarino ACS, Gomberg E 2016. Empoderamento da mulher através de feiras agroecológicas na cidade de Ilhéus, Bahia/Brasil. 2016. In: Fórum Sociológico. Série II. CESNOVA, p. 65-73.

IBGE. Censo Agro 2017 2017. Resultados Definitivos – Brasil, Grandes Regiões e Unidades da Federação. Instituto Brasileiro de Geografia e Estatística. Disponível em: <https://censoagro2017.ibge.gov.br/templates/ censo_agro/resultadosagro/pdf/agricultura_familiar.pdf> Acesso em: 20 nov. 2019.

IBGE. Cidades 2015 Instituto Brasileiro de Geografia e Estatística. Disponível em: <https://cidades.ibge.gov.br/ brasil/ba/mirangaba/panorama>. Acesso em: 20 nov. 2019.

Lima AEF, Sampaio JLF 2009. Aspectos da formação espacial da feira-livre de Abaiara – Ceará: relações e trocas. XIX Encontro Nacional de Geografia Agrária, São Paulo. Anais... Universidade Federal do Ceará. p. 01-19.

Mascarenhas G, Dolzani MCS 2008. Feira livre: territorialidade popular e cultura na metrópole contemporânea. Revista Eletrônica Ateliê Geográfico, v. 2, n. 4, ago. UFG/IESA p. 72-87.

Model P, Denardin VF 2014. Agricultura Familiar e a formação de circuitos Curtos de comercialização através das Feiras Livres: O Caso da Matinfeira - PR. In: Encontro Internacional sobre Gestão Empresarial e Meio Ambiente,São Paulo. Anais do XVI Engema, v. 1. p. 1-14.

Peccini MD, Hartmann LC, Christoffoli PI 2015. Experiência das Feiras Livres da Agricultura Familiar Camponesa. III Jornada Questão Agrária e Desenvolvimento. Anais... P: 1-12, UFPR, Curitiba.

Portugal AD 2004. O Desafio da Agricultura Familiar. Disponível em: <http://www.embrapa.br/imprensa/artigos/ 2002/artigo.2004-12-07.2590963189/> Acesso em: 25 de novembro de 2019.

Santos MAN, Sabioni SC, Silva FP 2018. Êxodo rural dos agricultores familiares na região do Catongo no município de Itajuípe/Bahia. Campo-Território: revista de geografia agrária, v. 13, n. 31, p. 208-228.

Silva JLN 2010. Vida quilombola: ênfase na construção da identidade dos moradores de Coqueiros, Mirangaba-Ba. 74f. Trabalho de Conclusão de Curso (Licenciatura em Geografia) – Universidade do Estado da Bahia, Campus IV, Jacobina-BA.

Silva WA 2017. Agricultura familiar e segurança alimentar nas comunidades quilombolas de Pariconha e Água Branca−Alagoas. Dissertação, Paulo Afonso, 138f, il. PPGECOH, Universidade do Estado da Bahia.

Stoffel JA, Colognese AS, Silva RNB 2014. A sustentabilidade na agricultura familiar e as formas de organização produtivas em contextos locais. Tempo da Ciência, Cascavel – PR, v. 21, n. 42, p. 53-67.

Stringheta PC, Muniz IN 2003. Alimentos orgânicos: produção, tecnologia e certificação. Viçosa: UFV. 452p.

Tonezer C, Santos F, Rambo AG 2008. Produção para Autoconsumo entre Agricultores Familiares da Comunidade de Jacarezinho – Encantado/. XLVI Congresso da Sociedade Brasileira de Economia, Administração e Sociologia Rural. Rio Branco – Acre P. 1-18.

Vidal DL 2011. Fator trabalho no manejo rural no semiárido nordestino, Brasil. Arch. Zootec., Córdoba, v. 60, n. 232, p. 1137-1148. Disponível em <http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S0004-05922011000400029&lng=es&nrm=iso>. Acesso em: 03 nov. 2019.

****