

The Regulatory Framework of Organic Agriculture in Brazil and Sustainability

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Abstract— This paper is a bibliographical review article about the regulatory framework of organic agriculture in Brazil (Law 10.831 of 2003) and its relationship with environmental sustainability. From a historical perspective of organic agriculture, it is shown that it arose from the organization of social movements characterized by concern for more sustainable agricultural models in relation to conventional agriculture. Organic agriculture is one of the aspects of agroecology that has as its mark the standardization of the norms and techniques of the agricultural production system, as well as the certification of food quality, which guarantees the consumer a food security.

O Marco Regulatório da Agricultura Orgânica no Brasil E a Sustentabilidade

Resumo— Este trabalho consiste num artigo de revisão bibliográfica acerca do marco regulatório da agricultura orgânica no Brasil (Lei 10.831 de 2003) e sua relação com a sustentabilidade ambiental. Dentro de uma perspectiva histórica da agricultura orgânica, mostra-se que esta surgiu a partir da organização dos movimentos sociais caracterizados pela preocupação com modelos de agricultura mais sustentáveis em relação à agricultura convencional. A agricultura orgânica é uma das vertentes da agroecologia que tem como marca a padronização das normas e técnicas do sistema agrícola de produção, além da certificação da qualidade dos alimentos, o que garante ao consumidor uma segurança alimentar.

Palavras-chave— Agroecologia; Sustentabilidade; Legislação agrícola.

I. INTRODUCTION

The cultivation of the land for the production of foods and other necessities goods for human survival is a millennial activity and the agriculture is associated with life itself on the land. The anthropic impacts to the environment during the exercise of agriculture are multifaceted, may it be negative or positive. Thus, according to FAO (2012) throughout the centuries the agriculture contributed to the creation and conservation of semi natural *habitats* that shelter a big zoologic variety, however, on the other hand, there are productive processes that affect negatively the environment, for example, the intensive use of pesticides and fertilizers, incorrect drain practices and a high level of mechanization can harm the environment.

The importance of agriculture goes beyond the simple production of foods, since the inadequate agricole practices generate ambiental degradation, loss of biodiversity and affect human health direct and indirectly. (FAO, 2012)

It is not ignored that agriculture is a human activity potentially capable of causing damage to the environment, since it is provenient of the exploration of natural resources, however, the exploration of natural resources must be racional, in other to safeguard the rights of the current and future generations to an ecologically balanced environment, as recommended in the article 225 of the Federal Constitution of 1988.

Besides, it is imperative to observe that being the right to an ecologically balanced environment a principle of the Environmental Law it's correct to say that this endorses an ideal model of exploration of natural resources, an end to be pursued, but not always easy to be achieved, given the nuances of the real world, that many times leads people to move away from the idealized model by the legislator. Thus, the task to harmonize the economic aspect of agriculture with the principle of environmental sustainability shows itself as a true challenge to the rural producer, on the other hand this mission cannot be lost sight of.

It is known that sustainability is a flexible concept, suffering different conceptions directly related to the view of each observer and to the observation angle, nevertheless, to look at what is sedimentary left around environmental sustainability in a global and local context and approach this ideal it is an imperative measure in the practice of agriculture.

With the attention on to the Law 10.831 of December 23 of 2003, that institutes organic agriculture in Brazil, this study seeks to analyze in what measure the model of agriculture outlined in that law approaches the ideal of sustainability in agriculture.

From a systematic analysis of the Law 10.831 of December 23 of 2003, it seeks to investigate whether the legally established criteria contribute to achieving sustainability in agriculture in the light of the systematic vision of the environment, by a perspective of Human Ecology, and, of course the notion of sustainability sedimented worldwide at the Conferences about the environment and in the brazilian positive legal system.

To face the question it is proposed a brief history of the agroecological currents, it's distinguished agroecology from organic agriculture, FAZ-SE ALUSÃO to the organic certification systems of Brazil, besides establishing the relation between the growth of organic agriculture in Brazil and its regulatory mark.

The objective of this revision article was to present a study around organic agriculture and its regulatory mark from the existing literature, with the purpose of presenting a panoramic vision of the subject and indicate, from collected studies, positive points of this model of agriculture, as well as justify the reasons why it becomes possible to affirm that the organic agriculture is a sustainable model of agriculture. The article is divided by the following topics: -Brief history of organic agriculture in Brazil; The agroecology and the organic agriculture; Systems of certification of organic agriculture in Brazil; The growth of organic agriculture in Brazil and the contribution of the regulatory mark; Final considerations.

II. METHOD

The methodology adopted is a bibliographic revision through the search of articles with fulcrum on the role of agroecology and the search of models of sustainable agriculture, that pursue a harmonic relation between the elements that integrate it. We sought to situate organic agriculture inside the universe of agroecology, its emergence in Brazil and its collaboration to the conservation of the environment in all its dimensions.

For the achievement of the bibliographic research and compillations of the articles were applied as descriptors the terms "organic agriculture and sustainability", "agroecology in Brazil", "sustainable agriculture", "organic certification in Brazil". Were extracted the articles which had a greater relevance with the question of research and that answered the object of study.

Likewise, were collected data at official sources which have as objective the organic agriculture, for example the International Federation of Organic Agriculture Movements - IFOAM and the Food and Agriculture Organization of the United Nations - FAO.

In addition were collected the main legislative sources about organic agriculture in Brazil, among which the Law 10.831 of December 23 of 2003, its respective regulatory decree and some normative instructions from the Ministry of Agriculture. It was equally explored the Law 7.794 of August 20 of 2012 - which instituted the National Policy of Agroecology, the Law 7.802 of July 11 of 1989 - which provides about pesticides, its components and such, as well as the Project of Law 6.299 of March 13 of 2002, which propose the alteration on the law of pesticides. The research did not have a time limit, but before that the concern was with the analysis of categories of research, history of organic agriculture in a more global context and especially in Brazil, relations between agroecology and organic agriculture, organic certification in Brazil and the growth of organic agriculture in Brazil.

It was also related statistic data informed on official pages in Brazil, such as Instituto Brasileiro de Geografia e Estatística - IBGE and the Ministry of Agriculture, Livestock and Supply - MAPA, related to later dates to the publication regulatory framework of organic agriculture, with the scope of demonstrating its influence on the practice of organic agriculture and agroecology.

III. RESULTS AND DISCUSSION

BRIEF HISTORY OF ORGANIC AGRICULTURE IN BRAZIL

Throughout the history of agriculture in a global scenario, the conception of what is truly a sustainable agriculture has acquire different meanings, and, as it could not fail to be, the history of agriculture is permeated by the influence of the social context where such activity were practiced, so that agriculture went through different phases (EHLERS, 1994, p. 11).

According to Ehlers (1994, p. 10-23), the so called modern culture emerged from the century XVIII and XIX, occasion where the agricultural practices were marked by the rotation of culture and by the approach between agriculture and livestock, it's about the First Agricultural Revolution, phase characterised by alleviating hunger caused by food shortages in Europe. At the end of the century XIX and beginning of XX, occurs the Second Agricultural Revolution, characterised by various scientific and technological discoveries, usage of chemical fertilizers, genetic improvement of plants and the separation between agriculture and livestock. The model dictated by the Second Agricultural Revolution became present in practices of diverse farmers spread around the world, in such a way that it started to be called "conventional agriculture".

According to Siebeneichler (2018) the preoccupation with the environment, with the search of alternative models of agriculture, became part of the agenda for discussion in the countries from the second agricultural revolution (end of the XIX century and beginning of the XX century), due to the exhaustion of natural resources caused by the Green Revolution.

However, only at the end of the XX century a new phase is experienced in agriculture, a phase of reaction to the model then dominant, where there became an articulation between the countries, primarily among the developed countries like United States and Japan, in defense of the environment, with emphasis of the consequences of the anthropic activities about nature, getting into questioning the limits of economic growth.

Stresses Ehlers (1994, p. 57) that the alternative agriculture emerged between the decades of 1920 and 1930, as opposed to the installation of the chemical standard, moto-mechanic and genetic of modern agriculture, emerging with the denomination of "rebel movements", in which gave special importance to the productive process and vegetative soil. In the 1970s, rebel movements were strengthened, and coming to be called "alternative" agriculture to the conventional model.

In 1972 occurred the United Nations Conference in Stockholm (Sweden), that counted with 113 countries, among them Brazil, a historic milestone by alerting people to the preservation of the environment,, according to Dias (2017). Dias (2017) informs that the United Nations Conference in Stockholm was preceded by a report titled "*The limits to growth*", based on a neomalthusian perspective which alerted around the risks of population growth over natural resources, having the potential to lead to the depletion of these resources. Thomas Malthus was a british economist that developed a famous theory around the demographic growth in which warned that the population grew in geometric progression, while the production of food grew in arithmetic progression, reason why the population growth would cause a great scarcity of food and, in consequence, hunger.

In 1983 ONU's general secretary invited the doctor Gro Harlem Brundtland to preside over the global commission about environment and development, and, in 1987 the commission led by Brundtland published an innovative report that brought to the world the concept of sustainable development. In 1992 occurred in Rio de Janeiro - Brazil the United Nations Conference about the environment; in 2002 the conference happened in South Africa ("Rio + 10"); in 2012, again in Rio de Janeiro - Brazil, occurred a new conference about the environment (Rio +20). Those

conferences defined a new objective to sustainable development (DIAS, 2017).

According to Santos & Monteiro (2004) the growth in demand for organic food results from the consciousness of consumers regarding the damage that residues from chemical fertilizers and pesticides can generate to health, including, such authors affirm that many pesticides considered indispensable for the conventional production are being seen as environment degraders and food contaminants.

According to Ehlers (1994, p. 40-55) agroecology stopped being seen merely as a scientific subject to become a practice, a “umbrella” concept that shelters various alternative tendencies.

Klug (2016) in an enlightening scientific article entitled “*The agricultural Brazil: the tortuous and difficult path to swidden*”, a work of bibliographical revision, concludes that since the colonial times Brazil served as agricultural enterprise for Portugal, in view of the lack of food autonomy of the last, since Portugal had no aptitude for agriculture and saw it as a less valuable and derogatory activity, resulting from this a huge contradiction on the part of the Brazilian peasants, that were reluctant to admit Brazil as a remarkably agricultural country, generating a true identity crisis. However, nevertheless the portuguese dependence related to brazilian agriculture, the author warns that Brazil did not employ agricultural techniques in land management, as the portuguese who were settled here did not dominate it, and absorbed the agricultural practices used by the natives who lived here.

In 1962, Brazil was strongly boosted with the publication of the book *Silent Spring* written by Rachel Carson, which stood out the necessity of respect towards the ecosystem for the protection of human health and environment.

Brazil's agroecological movement had its start in the decade of 1980 named alternative agriculture, since the movement emerged with the purpose of alternative models to conventional agriculture or the second phase of modern agriculture. (EHLERS, 1994, p.69-71).

In Brazil, the first regulations about organic products occurred in the decade of 1990 due to the rising number of production and commercialization in this sector, has especial spotlight the Normative Instruction nº 07/1999 by the Ministry of Agriculture, Livestock and Supply, that regularized the Organic System of Production and brought as newness the Certification by the Participative System of Guarantee, model that had been already used by Ecovida Network in Rio Grande do Sul. However, the Law that institutes the organic agriculture in Brazil was only published in 2003, it's about the Law nº 10.831 of

december of 2003, subsequently regulated by the Decret 6.323 of December 27 of 2007 (SILVA & SILVA, 2016).

Befits observe that the Normative Institutions n. 07/1999, the Law 10.831 of 2003 and the Decree 6.323 of 2007 have similar concepts of the Organic System of Production. Here's the concept presented in the Decree 6.323 of 2007:

Organic system of agricultural production is everyone who adopts specific techniques, through the optimization of usage of natural resources and social economics available and the respect to the cultural integrity of the rural communities, having as an objective the economic and ecological sustainability, the maximization of social benefits, the minimization of the dependency on non-renewable energy, employing, always when possible, cultural, biologicals and mechanic methods, in contraposition to the use of synthetic materials, the elimination of the use of genetically modified organisms and ionizing radiation, in any phase of the production process, processing, storage, distribution and commercialization, and the protection of the environment (DECREE 6.323 of 2007, art. 2º., Inc. XVII).

In view of the foregoing, in accordance with art. 2º, inc. XVII of the Decree 6.323 of 2007, so there are and be observed the legal demands of the Organic System of Production. It mister the conjugation of all the factors listed on the law, whether, employment of specific techniques, optimisation of the usage of natural resources and socialedconomics available, as well as the respect to the cultural integrity of rural communities. Besides, the mentioned article also demands the elimination of synthetic materials, the elimination of the usage of genetically modified organisms and ionizing radiation.

Thereby, there is no doubt that organic agriculture is guided by the pursuit of ecological sustainability, preserving the biodiversity, the biological cycles and the plants' health, in line with the basic standards for the production and processing of organic foods edited by the

International Federation of Organic Agriculture Movements (IFOAM, 2014).

According to Oelofse *et al* (2010), organic agriculture is well-accepted by family-based farmers, those face it as a big opportunity of economic and social ascension, since the organic market is booming and the reduction in the use of external inputs, as well as the additional value of the products promote an economic gain.

In the mid-1970s the theoretical emergence of "sustainable development" gets global attention, in this context happened the Stockholm's Conference by the United Nations in 1972, occasion which it was established the regulatory principles of sustainable development, but the theoretical framework of sustainable development emerge in mid-1980s, with the works of Victor Toledo and others in Mexico and Joan Martinez and other in Spain (GOMÉZ, 1996).

It is important to note that in the legislator's vision the observance of all those factors is a demand so the Organic System of Production exists, and it is a presupposition to achieve economic and ecological sustainability. The Brundtland Report, preparation for the United Nations Conference about the environment (ECO 92 - Rio de Janeiro - Brazil), addresses sustainable development as one capable of ensuring the needs of future generations.

AGROECOLOGY AND ORGANIC AGRICULTURE

Organic agriculture integrates a group of alternative agricultural currents to conventional agriculture, in between which biodynamics is inserted, natural agriculture and permaculture, that possesses traits which distinguish from one another, such as traits in common. Moreover, with the objective of encouraging agroecological soil management the second paragraph of the first article of the Law 10.831 of 2003 establishes that the organic system of agricultural production includes ecological, biodynamic, natural, regenerative, biological, agroecological, permaculture and other systems that attend to the agroecological principles, which is commendable, in view of that it brings some flexibility to the farmer.

It is good to clarify that according as sustains Ehlers (1994, p. 67) what is common between the agricultural currents mentioned above and the organic agriculture with regard to the recommended practices is that all of those defend the valorization of organic adubation, be it from vegetal or animal origin, of the consorced plantation, crop rotation and biological control of pests.

It's worth observing that organic agriculture, biodynamics, natural agriculture and permaculture should not be adopted

singly, but carry an idea of complementarity, being worth all the efforts on the search for the ecological balance, of an agriculture socially fair and viable. By the way, the laws of organic agriculture do not embrace only this mode of agriculture, as said before, but induct the notion of system, allowing all the measures aimed at seeking an ecologically sustainable agriculture. It is observed that Law 10.831 of 2003 and Decree 6.323 of 2007 do not define only organic agriculture, but define the "Organic System of Production", as art. 1º. of Law 10.831/2003 and art. 2º of Decree 6.323/2007, what reveals that the agroecological currents are not exclusionary from each other.

Too much more, it must be noted that the terms "agroecology" and "organic agriculture" are not synonyms, although many times being treated as such. However, as assert Altieri (1989) and Gliessman (1990) *apud* Abreu *et al* (2012), while organic agriculture has its roots in soil science, agroecology is based on ecology's principles.

A. Wezelet *et al* (2009) affirm that the term agroecology was used for the first time by a Russian agronomist called Bensen between 1928 and 1930 that suggested the term "agroecology" to describe the usage of ecologic methods in searches about commercial plants. They say that up until today the term agroecology is used to refer to the application of ecology in agriculture.

To Assis (2002), agroecology is "a science that seeks the understanding of the functioning of complex agrosystems, as well as the different interactions present in these". Exhibits the mentioned author that agroecology craves the conservation and enlargement of biodiversity, with views on obtaining self regulation and sustainability.

Assis (2002) emphasizes that soil has been recognized as an living entity, whose existing organisms do not depend only on physical and chemical conditions, but also influence this environment with a wide range of activities. Thus, the soil's biota is strongly influenced by the practices employed, such as crop rotations, fertilization and others.

A Wezel and collaborators (2009), when discussing the concept of agroecology inform that the term is present through time as science, social movement and as practice. Initially agroecology emerged as science around 1920 and 1930, from 1960 the term agroecology is used to head the social movements of protest to conventional agriculture, although in the 1990's and agroecology is presented as an agricultural practice.

Abreu and collaborators (2009) highlight agroecology as a practice when emphasizing that agriculture translates into the adoption of new practices, the emergence of new

systems of values and relations between producers and consumers. Agroecology is also presented as a complex interdisciplinary science, according Floriani and Floriani (2010).

Moreover, despite the multiplicity of factors around agroecology the theme deserved a minimum systematization, task achieved by the editing of Decree 7,794 of August 20 of 2012, that institutes the National Policies of Agroecology and Organic Production (PNAPO), created with the objective of “integrate, articulate and to adequate policies, programs and inductive actions of agroecologic transitions and organic agriculture started to integrate the project of development of Brazil, living with the development policies of conventional agriculture.

Many countries in the world created legislations to regulate the organic production system, not being a tendency only in Brazil, so much so that it is true that in 1972 the International Federation of Movements for Organic Agriculture (IFOAM) was created, global institution that brings together different sectors involved with organic production, in which in 1980 established basic standards to define the organic productions in an international context, standards that undergo periodic reviews and guide the laws of countries on organic production (IFOAM, 2014).

Moreover, Siebeneichler (2018) asserts that the Brazilian State acts via a regulatory framework of organics, however, in Europe the States work through a regulatory body, which evidence in Europe a politicization of consumption and a bigger participation of non-public actors.

In the light of Decree nº 6,323 of 2007, organic agriculture is a system of production that maintains the soil's biological activities, seeking to preserve the health of the environment and biodiversity. It prohibits the use of synthetic fertilisers, pesticides in general and growth regulators, as well as the employment of genetically modified or transgenic organisms. According to IFOAM (2014), the principles of organic agriculture are equity, health, ecology and justice.

The differential of organic agriculture, here understood as that which attends to the organic system of production, translates itself on its legal discipline and in the demands of certification of its products, allowing the traceability of food in all the steps of production, since the plantation until the transportation and delivery of food to the final consumer, having as goal to attend the demands of food safety and quality (IFOAM, 2014).

It is not ignored that there are standardizations of fixed agriculture by the market, noticeably in the market focused

on exportation, where usually it's fixed the standards of quality and traceability of cultivated products, however, the differential of organic production system is that it applies to all of those who adopt, without any distinction between the recipients of the products put up for sale, which provides greater protection to the consumer.

To Silva & Silva (2016) the superiority of the nutrients in organic food is an advantage, to the extent that this type of agriculture maintains soil fertility and the general health of plants, animals and humans.

It is worth stressing, however, that some critics present organic agriculture as a niche market, and sustain that there is a certain detachment between organic agriculture and agroecology, what happens, for example, when the first admits the practice of monoculture, with the purpose of producing on a large scale to attend the foreign market. By the way, one of the determining factors in the institution of a regulatory framework in Brazil was to meet the requirements of the international market.

In this sense, Abreu (2012) considers that organic agriculture and agroecology can converge at some points and diverge in other and, by pointing out the divergent points maintains that an organic-based farmer can seek efficiency in its practices without redefining the productive system, working on a system of monoculture, which would not meet the dictatings of agroecology, for it doesn't value the diversity of cultures.

In the same direction Silva (2017), who points that in capitalism it's impossible the ethical coexistence between living beings, since capitalism goes through a global standard of coloniality, dictating norms to obtain captivated minds, cheap labor and abundant raw material, requiring a counter-hegemonic movement, to enable the application of the principles of agroecology and well-being.

However, if it's true that agroecology and organic agriculture are not exactly convergente expressions in all points and that on large-scaled organic agriculture there is practice of monoculture, then, it's undeniable that even on organic monoculture it imposes to observe the legal rules, with the management of more sustainable agricultural techniques, under penalty of not obtaining the certification of the products or establishing itself in the market as an agribusiness focused on exports. This way, the organic farmer must obey to the Law nº 10,831 of 2003, the Regulatory Decree nº 6,323 of 2007, and, yet attend the Normative Instruction 46 of 2011 of the Agriculture Ministry, focused on plant and animal production.

On the other hand, as maintain Silva & Silva (2016) organic agriculture has the aptitude to be developed by employers' producers, but its greater aptitude is to be

developed by small and medium producers, since the inception of those in a modern productive system and adapted to the reality of the markets causes there to be creation of jobs, as well as social and regional development.

Santo *et al* (2012) in an enlightening study around organic agriculture and sustainability, based on the teachings of Sir Albert Howard, that brought the theoretical embasement to organic agriculture, and, as base of studies to many authors, points that “organic agriculture relies on economic, social and environmental factors, that interconnected and interdependent form a dynamic balance, pattern of sustainability.” Add, also, Santos *et al* (2012) that various are the advantages of organic agriculture, being seen that its activities do not contaminate the water, nor cause death of the fish and aquatic animals, as opposed to what happens when indiscriminately using mineral insums.

It should be noted that the Decree 6,323 of 2007, by regulating the organic system of production, impose the observance of tradition and culture, besides demanding the obedience to the labour laws, especially in relation to the norms of safety and hygiene of work, how it is insoffrom the articles 4° and 5° of the referred decree.

Given this, the law does not despise the traditional knowledge of agriculture, respects the cultural integrity of the producer and also excels for healthiness in the workspace, seeking to improve the quality of life of the employee. By the way, the quality of life to be pursued must reach not only the paid employees, but also the own rural producer, that, not rarely work alongside the other members of your family with minimum age of work under the family farming scheme.

This way, organic agriculture is much more advantageous than conventional agriculture and offers more reliability and preservation of the ecosystem as a whole.

CERTIFICATION SYSTEMS OF ORGANIC AGRICULTURE IN BRAZIL

With the advent of the Law 10,831 of december 2003 Brazil gave an important step into searching sustainability in agriculture with the standardization of production, transportation and commercialization techniques of products.

For a unity of production to be considered organic must go through a period of conversion, that varies according to the type of exploration and the previous usage of the unit. Before the period of conversion is complete with all its demands it is not possible to obtain the certification of the product as organic, and, the collected food during this

phase are called only “agroecological products” (art. 6° of Decree 6,323 of 2007).

In collating with conventional agriculture it's evidente even more the standardization of organic agriculture, in view of the fact that conventional agriculture does not enjoy legal rules, except in relation to the use of pesticides and chemical fertilizers, which, has legal limitations, besides the ones imposed by the market. However, even so, according to Silva & Silva (2016) Brazil presents itself as the biggest consumer in global scale of pesticides, add to it, yet, that the agricultural sense of the Brazilian Institute of Geography and Statistics - IBGE - performed in 2017, found an improvement of 20% on the usage of pesticides in relation to the year of 2006 (IBGE, 2019).

Santos & Monteiro (2004) underscore that the food production by the convencional system can bring residues of pesticides harmful to human health. They bring up research performed by the National Health Surveillance Agency (ANVISA) alongside with the Oswaldo Cruz Foundation (FIOCRUZ), in which showed that 22,17% of the fruits, greens and vegetables, produced on conventional system and sold in supermarkets of four brazilian states, showed levels of pesticides higher than allowed by the law and contained, including, non-authorized products.

Organic farming, on the other hand, goes through inspection during the conversion period of conventional agriculture to this model of cultivate of the soil and at least once every year the units already certified are inspected, according demanded by the articles 55 and following of the Decree 6,323 of 2007, which regularize the institute law of organic agriculture.

In 2012 the Brazilian Association of Public Health - ABRASCO published a dossier in which affirmed that from the 50 pesticides most used on Brazil's crops, 22 are prohibited on the European Union, which evidences the necessity of stricter regulamentation and fiscalization of the country.

In Brazil the law which provides about the use of pesticides is the law nº 7,802, of July 11 of 1989, which provides also about research, experimentation, production, packing, among other subjects relating to pesticides, its components and others, the referred law is scoped minimize the risks of exposure to pesticides in differents steps of the process.

It is in the process on the National Congress the Bill 6,299 of March 13 of 2002, vulgarly called “Poison Package”, which, if approved, will release even more the usage of pesticides in the country. On the other hand, it also is in the process on the National Congress the Bill 6,670 of December 13 of 2016, which institutes the National

Policies of Pesticides Reduction, aiming more protection to human health and to the ecosystem.

Organic Agriculture has as main instrument the certification of its products, for it lends credibility to the consumer about the quality of food and easy access to foreign market (SILVA & SILVA, 2016). In this procedure a Certifier, duly accredited by the Ministry of Agriculture, Livestock and Supply (MAPA) attests in writing that determined product meets the norms and practices of the model of organic production, attaching a seal to the label or packaging of the product.

Santos & Monteiro (2004) when discussing the requirements for the production of organic foods adduct that:

For you to become an organic farmer, it is necessary that the candidate be subjected to a rigorous process of investigation of the environmental conditions of the agricultural facility and of the potentiality to produce. It is considered aspects as the not use of chemical fertilizers and pesticides in the last two years, the existence of vegetal barriers when there are neighbors that practice convencional agriculture, the quality of the water to be utilized on irrigation and washing of products, the conditions of work and the life of workers, the compliance with health legislation and the lack of garbage scattered throughout the facility. The producer must respect the norms during all the steps of production, since the preparation of the soil to the packaging of the food, always preserving the natural resources. The farmer signs a contract with a certifier which provides for the monitoring of its production, in a way to guarantee the trackability and the quality of the product to be available to the consumer.

(SANTOS, Graciela Cristina dos. MONTEIRO, Magali. Organic System to Food

Production. Alim. Nutr.Araraquara, v.15, n.1, p.82, 2004).

Thus, given the strictness of the conditions necessary to obtain the framing as organic producer it's visible the guarantee of quality of the products offered to the consumer.

As far as certifiers are concerned, underscore Santos & Monteiro (2004) that they should have their own rules and exert proper control over the usage of their licences, certifiers and certification labels. In addition, they should specify which products are authorized to use the certification label.

There are three types of classification for the organic products available to the consumer: *Audit Certification (OAC)*, *Participatory Guarantee System* and *Social Control in Direct Selling* (SANTOS et al, 2017).

On Audit Certification, the granting of the system seal of organic production (SisOrg) is done by a public or private certifier, accredited by the Ministry of Agriculture. The conformity assessment body obeys the procedures and criteria recognized internationally and the technical requirements established by brazilian law about organic agriculture (SANTOS et al, 2017).

The Participative System of Guarantee is characterized by the collective responsibility of the members of the system, that might be producers, consumers, technicians and other stakeholders. To be legal, a SPG has to have a Participatory Conformity Assessment Body (Opac) legally constituted, which will be responsible for issuing the SisOrg(SANTOS et al, 2017).

According to Santos et al (2017) the participative system of guarantee is peculiar in Brazil, which brought the possibility of participation of all the agents involved in the sector, allowing that the guarantee of quality of the product to be made in a relational or participative manner, being able to attest to the organic quality without the direct presence of the certifier, which allowed small producers access to the system.

In case of certifications by the participative system the producer must be linked to a group, attending to the periodic meetings. The own group guarantees the organic quality of its products, being that everyone supervises each other, and, in case of one producer not meeting the norms of the organic system of production, the group must exclude the producers, cancel the certify and inform the Ministry of Agriculture (SANTOS et al, 2017).

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The Social Control of Direct Selling is an exception to the obligatoriness of certification of organic products, destined to the farmer under familiar regime. However, accreditation is required in an organisation of social control (OCS) registered in an official supervisory body, because with that, the family-based agricultors start to be part of the National Register of Organic Producers. On this system the producers must ensure the consumers and the inspection body the trackability of the products, as well as the open access to the producing facilities (SANTOS *et al*, 2017).

It is therefore verified that the certification system makes possible and also conducts the observance of rules legally instituted to the configuration of organic systems of production, which provides food and nutrition security for the consumer, since it does not present synthetic fertilizers and pesticides, besides not allowing the genetic modification of seeds. Add to that the rational use of natural resources, the generation of more balanced ecosystems and more generation of hand of work, as stresses Silva & Silva (2016). Another important factor, which is highlighted by the law 10,831 of 2003 and the regulatory decree is respect for the cultural environment and to the knowledge of traditional communities, since local agriculture is valued, inserting the producers into the productive system.

THE GROWTH OF ORGANIC AGRICULTURE IN BRAZIL AND THE CONTRIBUTION ON THE REGULATORY FRAMEWORK

According to the official website of the Ministry of Agriculture, in seven years tripled the number of registered organic producers and the quantity of units of production grew a percentage of 300% between 2010 and 2018. The number of rural producers of organic food units has presented a permanent growth, leaving the number of 5,406 units in 2010 to hit the number of 22,064 producer units in 2018.

In 2006 IBGE performed an agricultural census and identified 90,498 facilities of organic producers embedded in a total of 5 million agricultural facilities in Brazil, in a way that the organic production represented 1,75% of the Brazilian production. However, in the world of organic producers only 5,64% were accredited by a certifying body registered in the MAPA (IBGE, 2006).

Siebeneichler (2018) sustains that the organic market in Brazil, as in other countries, is on the rise, although the European market has a much higher level of growth.

Thus, the number of producers that formally adopted organic agriculture in Brazil is increasing.

IV. CONCLUSION

The preoccupation with world hunger generated a model of agriculture focused on large scale production, implementing itself on agriculture a model of industrial production, with large usage of machines instead of human hand work, usage of pesticides and exacerbated natural resources. As a reaction to the current model of agriculture, emerged the alternative model of agriculture, in which rescued principles of agroecology abandoned before by conventional agriculture.

In the beginning of the XX century the environment started to integrate the agenda of global conferences between the countries, emerging alternative models of agriculture. In Brazil, organic agriculture became notorious in the 1990's, especially after the environment global conference - ECO 92, held in Rio de Janeiro - Brazil.

Agroecology and organic agriculture are not convergent expressions, one might say that agroecology is a genre and organic agriculture is a species, agroecology is a wider term and englobes other models of agriculture, such as permaculture, biodynamics and biological agriculture. Moreover, the law 10,831/2003 brought the definition of "Organic Systems of Production" involving various models of agriculture, not only organic agriculture, and concludes that the models of agriculture complement each other.

The legal subject of organic system of production, as well as the demands to certify the organic foods, except for the prerogative of direct selling by small farmers registered on the Ministry of Agriculture, Supply and Livestock, allows more food safety and a bigger approach of sustainability ideas. In contraposition, conventional agriculture which has no rules, except with respect to the limitation of the use of pesticides and the natural market impositions.

However, although there are legislative limitations regarding the use of pesticides there are shortcomings on fiscalization, in a way that it's common that food produced by conventional system of agriculture presents levels of pesticides higher than allowed by law, and not forgetting to consider that there is often the use of the unauthorized chemical inputs by law.

Thus, the objective of this study was to demonstrate that the legal framework of organic agriculture in Brazil - Law 10,831 of 2003, stimulated the adoption of a model of sustainable agriculture, that respects the productive capacity of the soil, promotes the use of rational natural resources, the preservations of the ecosystem, respect to the rural producer, its culture and also the consumer.

The objective was to demonstrate the legal standardization of organic agriculture, as well as the demands of certification of its products gives consumers greater credibility, ensuring them the much desired food security.

In Brazil it was observed a discrete growth in organic agriculture, however the growth of organic agriculture has shown itself as a global tendency, since the consumers are more aware and demanding.

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