

**RURAL MANAGEMENT: AN ANALYSIS OF THE IMPORTANCE OF INFORMATION AND PLANNING OF SMALL SCALE PRODUCERS IN THE ACQUISITION OF NEW TECHNOLOGIES**

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**ABSTRACT:** Family farming develops a crucial role in the Brazilian economy, regarding both, employability in the production of the main food in the Brazilian menu, as in social, economic and environmental issues. This text will try to draw a profile of the small farmer, who still has a lot of resistance to change and when they have to implement improvements on their property, they often make it disorganized and unplanned. Many factors may contribute to this situation, such as low education of the rural people, their little information and planning challenges, which are specific of agricultural activities.

**Keywords:** Family farm. Planning. Technology.

## **1 INTRODUCTION**

According to Lamarche et al. (1993) family farming is the "idea of an identity between family and farm." In his view it "corresponds to a unit of property and agricultural production where work is closely linked to the family."

The family farm is composed of small and medium producers and represents the vast majority of farmers in Brazil. In general, farmers with low education levels, diversifying crops, grown to dilute costs, increase income and opportunities for environmental supply and availability of manpower.

These data were confirmed through 2006 Agricultural Census of IBGE - Brazilian Institute of Geography and Statistics, the census shows that the total number of agricultural establishments in Brazil is 5,204,130, of which 4,367,902 (84.4%) of them are family farms .

Through these data we note that a large number of small farmers occupies an area of 80.25 million hectares, equivalent to 24.3% of the space of all Brazilian establishments. Another important factor is the drop in the number of rural workers during the 20s in the last century, there were nine people per farm; in the 70s there were five and it dropped to 3.2 workers in 2006. (Nascimento, 2014)

The management of family production units lacks a lot for being managed in a spontaneous way and planned with a lot of superficiality. This fact is caused by poverty and scarcity of land, by the hands of low-skilled labor and the consequent difficulties faced by

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farmers who exploit properties in a household system. As consequences there are precarious forms of marketing, small scale production, lack of added value production, excessive diversification, limited availability of training and information (Blum, 2001).

According to Portugal (2002), an essential factor is the issue of technology. The technology available should be analyzed, because when properly used it has been adequate and feasible. Today there are many researches on an adaptation of technologies for family farming. The main feature of the technology is to increase the productivity of land and there are, on the market today, machines and equipment tailored to small producers, funded by government programs like Pronaf, offering a long-term payment to the producer (as long as 10 years).

According to the author, the main purpose of the mechanization of family farms is to eliminate the idle land or improve labor productivity, and the main challenge is to adapt and organize their production system using technologies available.

Agribusiness is a high risk investment, subject to many variables, but there are several successful models in the development effort, such as POs, qualification of labor, credit, value-added products and the use of appropriate technologies developed by agricultural research (PORTUGAL, 2002).

In this paper we seek to confirm the existence of viable opportunities to small producers, aiming to demystify the idea that there's only technology to improve agriculture for the big producer with high income.

Through this posture awareness evidence, the insertion of small producers in the transformation of agribusiness in Brazil and in the world is undergoing rapid process, which aims at increasing production in a smaller space and with higher quality.

## 2 RURAL FAMILY MANAGEMENT IN AGRICULTURE

Historically, the issues that guide rural areas are very complex, especially regarding the pre-established idea that there is little development and few opportunities to access technological advances to this sector of the economy - agribusiness, specifically family farming.

To Bordenave (1985), this vision is gradually changing, as it is perceived that this change is mainly among large producers who have a higher education and access to information, thus increasing the understanding of the complexity of agribusiness and it is a medium and long term, high risk investment.

According to Martine (1989) the small scale producer, still has a peculiar view of technologies and their contribution to production. The idea of professionals who have theoretical training, in most cases, is viewed with suspicion; and new generations have difficulties to enter and / or assist in new techniques of management and / or administration in agricultural activities, which often merge with family issues.

Even in current times it is noticed that the small producer restricts its activities to a basically familiar and immediate production (eyeing results in the short term); lacking the

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vision of the importance of managing their property, their production, and this is vitally important, both for small and for the large producer.

Planning is a systematic approach to decision making (...), brings numerous benefits that can be obtained by an organized way of planning. The most important thing is the future of business, anticipating problems before they happen. (SANTOS et al., 2002, p. 15)

Most small producers have this vision of immediate gain without planning and with lack of information, because of this, there is a concern with an operational plan of the property and the purchase of new equipment.

The immediate vision of the producer prevents them from making calculations that would allow them to plan for the future, so that the acquisition of equipment that would optimize their production would seem feasible or not.

According to Santos et al. (2002) planning allows management to know, *a priori*, the operating results of each activity of the rural company and then perform the necessary accompaniments for these objectives to be achieved and the possible deviations to be analyzed, evaluated and corrected.

Adding to the low education of small producers, there is also little information or little interest, they often think that they already know all that is necessary for the viability of their property, or find themselves barely able due to low education.

According to data of IBGE (2014), although education has increased among smallholders, about 43% of land owners in the country have not even finished elementary school.

Clearly, planning, from the perspective of the farmer is much more complex, since the climate issue and marketing are very unstable, and these factors have a direct impact on their production capacity. For Santos et al. (2002, p. 19) "Rural administrator has no control over external factors (price, weather, market, financing policy, transport, availability of manpower, etc ..). and must know, how to make favorable decisions. "

At first glance all this is too complex for the producer, but nowadays various media allow a wide range of information that become essential to the small producer, as some examples, the House of Agriculture and CATI, government agencies can teach courses and provide information to producers, which usually has a municipal service; and sites like Emater and Embrapa, which provide lots of information, and applications that assist in decision making (SILVA, 2008).

When thinking about the complexity of farm management, note how information and education of the producer can assist in collecting and analyzing data to evaluate the feasibility of acquiring new technologies that benefit the property and the real benefits it will bring ownership in the medium and long term and the impact it will bring to their finances in the short term.

The importance of modernization and rural management dates back the beginning of the New Republic (period beginning in 1985 until today), characterized by a movement that would democratize the country after more than two decades of authoritarian military rule. Through this movement, sought to integrate human development of the countryman, but without paternalism, with a view that the small farmer, the land owner or not, where they work, are subject to their actions as citizens, who discuss their reality and decide (RODRIGUES, 1997).

According to the author, technological progress is also an objective of this movement, but was not considered a forceful intervention to the adoption of technological packages. It tries to facilitate the technical progress and the improvement of managerial minorities who have historically been marginalized in this process.

According to Bordenave (1985), any change, aiming at the development happens when new ideas start, among producers, aiming at higher productivity. Thus innovations are diffused and accepted by producers so that they adopt them effectively in their property. There are likely more farmers, who rapidly adopt innovations, and this will be imitated by others so that the example creates a chain reaction to reach the most reluctant farmers.

Martine (1989), when talking about the recent modernization of agriculture, says it is characterized into three phases: a period of conservative modernization (1965-79) in which the government seeks to promote modernization through grants; crisis period (1980-1985), characterized by withdrawal of subsidized credit replaced by directed credit; period after 1985 marked maximizing production and supercrops.

The evolution of agricultural credit as a way to develop agribusiness in the country, in its beginning had its distribution concentrated and directed to the most affluent regions of the country, for large producers and export products, to the detriment of the less developed and poor regions the country such as the northeast, small producers and farm products for staple food of the population (Cardoso, 1985).

According to Lima (2001) in the current scenario, there is a latent concern for family farming, as this is often seen as impractical, compromised and doomed to disappear, and the result of the neglect of past public policies.

Through this issue and the need to modernize and organize family agriculture that emerged in 1995 is the National Program to Strengthen Family Agriculture (PRONAF).

The National Program for Strengthening Family Agriculture program of technical and financial support, was created by the federal government through Decree No. 1946. Its main objective is to stimulate rural development by strengthening family agriculture sector as a generator of employment and income through sustainable development policies aimed at adjusting to the reality of family farming (MAARA, 1996, p. 14).

Thus, the main objective of this program is focused on the family farm income and improves the quality of life of rural families through improvement of production systems, to access resources, services and income, sustainable mechanism, either through technical, or

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even through credit counseling to enable the purchase of equipment aimed at technological and production improvements.

For Dias and Bacha (1998), technological change presents itself closely linked to productivity change. Besides the need to consider the acquisition is necessary to reflect on what equipment will increase productivity at a lower cost. Producers often do not think about the real utility of the equipment nor the impact that they will bring to their finances, but often think about the issues of the acquisition as a way of ostentation, without organizing themselves financially for the impact that this acquisition will bring to their production which often leads to debt and in some cases the loss of property.

Noting the importance of analyzing and planning the financial ability, the ability to purchase and the real benefits of production; they have a real sense of how a new technology can leverage a property or determine its failure.

### 3 FINAL CONSIDERATIONS

A lot is mentioned about the importance of family farms, and some actions have already been taken to implement policies and programs that benefit the small scale producer.

But when it comes to information, planning, and new technologies, there are paradigms that hinder the advancement of this type of agribusiness. And it is such an important sector of the economy in Brazil.

All this together brings as a consequence, the lack of planning of the farmer, who often do not see their property as a business, not weighing up the risks and possibilities, and therefore does not make viable acquisitions that actually contribute to the increase and improvement of productivity.

All this reflection gives a unique meaning to family farming, which serves the table of Brazilians. That it is time to break these paradigms and professionalize it. Because it is in urgent need to disseminate planning, analysis and prediction of outcomes, especially for small scale farmers, because the property is often their only asset, it is their house, their work, their entertainment and their source of income, and poorly planned investment plus injuries can result in the loss of what is essential to them: "their land".

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