

CITRIC ORGANIC PRODUCTION AS COMPETITIVE STRATEGY IN SATURATED MARKETS. ORCHARD'S PRODUCTIVE STRUCTURE IN ANDALUCIA

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The growing interest in the environment has led to the so-called organic agriculture, a fact not only due to its consideration as an environmentally friendly way to produce, but also because it complies in a better way the concern of consuming healthy food. Along to that, it must be added the role played by the Agrarian Policy developed in recent decades by EU, especially from 1992 reform, which introduced environmental-related measures. These aspects have contributed to the interest that producers have expressed in this kind of practice, producers that are aware that it responds better to the new social demands, and to the fact that they will have a financial support by the Administration. In this sense Organic Agriculture has been included in a regulatory framework that included financial aides. In the case of Andalusia, the Administration has clearly opted by these practices, through the development of Planes Andaluces de Agricultura Ecológica, where sector priorities are defined, lines of action are established, and a budget is endowed.

Since its inception the evolution of Organic Agriculture has been strongly influenced by the establishment of this institutional support. Today, the system of aids will be a major factor affecting the future development of this production system, and clearly will help to increase the economic viability of Organic Production. But, that said, we have to remark that aids are often very limited, in the face of the lost of benefits related to the conversion period from conventional production, the bureaucracy involved in the application for aid is huge, and, in citric case, the orchards are small-sized.

Despite all the difficulties found in its development, today Organic Agriculture has a well established presence in Spain, a presence that has led to a huge increase, both in surface and number of farmers. It also should be noted that there have been changes in its spatial distribution, being today Andalusia the Autonomous Community that provides almost 55% of the total area dedicated to Organic Agriculture. Anyway, although with the strengthening of this

kind of production new crops have been incorporated, still grasslands, prairies, and fodder, the more traditional organic crops in Spain, occupy more than a half of the organic extension, and are the main responsible of the surface increase.

In this context, organic citrus only provides a 0,35% of the surface. This small participation is related with existing structural problems in many producing areas, that difficult to maintain an acceptable profitability: lower production yields, and higher production costs that are not always offset by the price paid by consumers and the amount of the aid arbitrated for the sector; lack of advice and training on the organic cultivation of citrus; increased production problems (as pest problems, reduced initial production, etc.), and the conservative attitude that has always characterized the farmers against innovations could be highlighted, among others. These problems are affecting its viability and productivity, and hinder or prevent the modernization of farms

In this context of crisis in the citrus industry, the possibility of product differentiation is one of the few options that producers have in order to achieve an increase in prices received for their products; a differentiation that, if certainly could be achieved through several ways (as getting GAP, Agricultura Integrada or Denominación de Origen certificates, among others), in the case of Andalusian farmers Organic Production is the choice that, so far, is more widespread, as a real alternative to improve the economic performance of orchards.

We have plenty of studies that analyze several aspects of Organic Production, comparing it against conventional one: ways of handling the orchards, farming techniques, product prices, production costs, and therefore, the profitability of farms in both systems are compared. With respect to the latter, the most common conclusion is that there are no major differences between farming systems, although the literature emphasizes two aspects: on one hand, Organic Production gets slightly lower yields, combined with an increase of production costs, but, as the price of the production is higher, the economic balance is more favourable. And, in the other hand, Organic Production has a real possibility of finding a market niche where secure the sale of the crop, a possibility that has introduced changes in the commercialization circuits (Navarro, 2002; Alonso, 2008.; Julia, 2004; Dominguez, 2006.; Porcuna, 2010; Junta de Andalucía, 2011).

Anyway, an aspect that has been left out in the existing studies, and that could complement them, is the comparative analysis of the structures of holdings in both producing systems. At this point, we wonder if from a structural standpoint there could also be observed different characteristics between conventional and organic citrus orchards, characteristics that could affect their profitability, being that comparison the aim of this paper.

The information that we have used comes from Microdata of the latest Agricultural Census (2009), which, as is known, are related to each of the farms surveyed in Spain, allowing a complete characterization them individually of each, as complete as the questions of the questionnaire allow. In our case, we have proceeded to characterize and compare the two types of citrus farm, considering their size –both physical and economical– and their demand of work. But we have also gone a step further by building a classification of both types of orchard, a classification that should be interpreted as a synthesis of their structural characteristics. As we have the information for each individual farm, we were able to use two synthetic statistical instruments in its construction: first, a factor analysis of main components

that has identified a small number of dimensions that underlie the set of individual characteristics of the selected farms. And secondly a cluster analysis, fed with the results of the factor analysis, which allowed us to group the orchards in clusters. Those clusters are characterized by the fact that among them the group variance is minimized, and the intergroup variance is maximized. The result is a synthesis of all information obtained from the microdata, from which we can not only characterize groups of citrus farms that can be found in Andalusia, but also compare data from conventional to organic.

As said before, one of the main problems that citrus production in Spain has is an inefficient production structure, characterized by the presence of very small orchards, and that is why is useful to compare the productive structures of the two production systems, organic and conventional. The use of microdata from the last Agrarian Census has shown that, in general, the structural problems that drag conventional citrus farms are found too in ecological ones, although organic ones have differences in some specific areas. A fact that, along with better prices achieved in the sale of the product, confirm these practices as a real option for citrus production.

In this comparison, the first aspect that we can address is that the average size of organic citrus orchards in Andalusia is inferior to conventional ones; small size is therefore a problem that worsens them. One of the reasons of this smaller size is the fact that the conversion of an orchard takes place gradually, beginning with a part and adding in subsequent years the remaining surface; so it is expected that in the future a slight increase in size occurs. Anyway, this clear disadvantage is lessened when it is found that organic orchards of smaller sizes increase their net margin, compared with conventional ones, probably due to higher prices achieved for organic products, cost reduction through intensification of unwaged work, and better opportunities of sale. However, with the increase of size takes place a change of the situation, probably due to the fact that the family work can not face the amount of work related with bigger sizes, so hiring workers is needed.

The second aspect to highlight is related to the intensity of work. We have found that organic citrus orchards are more labour intensive, more than twice than the conventional ones, and, in this context, in organic orchards wage labour is less frequent; the bulk of labour necessities is covered by family workers. Composition of work depends largely on the orchard's size, and in this regard we have not found significant differences between conventional and organic farms. With the exception of the large ones, there is no orchard size in which wage labour is more important than family labour, both in organic and conventional, but it should be noted some differences between these two groups. In the latter, the bigger the extension, the bigger the needs of external workers. In the organic, we have found a slightly higher demand of work compared with conventional orchards of the same size.

In conclusion we have found that this production model has been a clear alternative for many citrus producers, and is a very suitable method of production to support small and medium-sized family farms that produce quality products. Should also be noted that the grow of organic citrus production in our opinion will continue in the coming years, although the pace of growth will depend on market developments in terms of preference for organic, with greater health and environmental safeguards, and how institutional support to this form of agriculture will translate into practice.

