Assessment of sustainability in organic and conventional farms in Tunisia
The case of olive-growing farms in the region of Sfax

Laajimi A. , Ben Nasr J. and Guesmi A.

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Assessment of sustainability in organic and conventional farms in Tunisia
The case of olive-growing farms in the region of Sfax

Laajimi A. ¹*, Ben Nasr J. ¹ and Guesmi A. ¹

¹National Agronomic Institute of Tunisia. Department of Agricultural and Food Economics, Tunis, Tunisia
This research has been carried out to study the sustainability of the Tunisian olive-growing farms and to compare the sustainability level of organic with conventional farms. A survey was conducted with 62 olive growers in the region of Sfax in Tunisia. First, a diagnosis of the situation of the farms was undertaken comparing sustainability of the production and the post-harvest processes on the farms [2]. Thus, can we say that organic farming constitutes a sustainable production practice?

The agricultural sector is often criticized, regarding environmental pollution, food safety or economic performance. This was the origin of the development of new production techniques, such as organic farming, given its impact on environment, human health and the agricultural ecosystem, on the one hand, and considering its principles which tend towards the non-use of chemical products, the conservation of biodiversity and the production of healthy products on the other hand. It aims at improving environmental, economic and social aspects of the farms [2]. Organic farming constitutes a sustainable production practice?

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The “IDEA” indicators showed a greater ranking for the organic farms. The analysis indicated the sustainability of organic farming on the three scales adopted; ecological scale, through the soil fertility and reduction of pollution, socio-territorial scale through employment creation, reinforcement of the spirit of collective work and the products quality, and finally on the economic scale by enhancing profitability, responding to demand and prices allowing organic farming adopters to reach better incomes.

In addition, a farm is considered sustainable when it reaches an income level that allows respectful practices of the environment and contributes to the social integration of the farms [4]. However, this concept remains rather vague and some questions may rise: How to evaluate the sustainability of a farm? How to be located in the sustainability approach?

In Tunisia, the assessment of the farms sustainability approach is relatively recent and the experiments carried out in this field, in spite of their importance, remain limited and did not exceed the descriptive character.

This study represents an attempt to assess the sustainability level for Tunisian olive-growing farms. The purpose is, through some indicators based on the French “IDEA” method suggested by Vilain [1], to compare the sustainability level for organic olive-growing farms to conventional farms.

I. INTRODUCTION

II. METHODOLOGY

In order to evaluate the olive-growing farms sustainability compared to conventional farms, some sustainability indicators were used based on the French “IDEA” method.

A. The “IDEA” (Farm sustainability indicators)

There are many definitions for sustainability. All of them cover environmental, social and economic trilogy of the sustainable development (fig. 1).

1 IDEA : Indicateurs de Développement des Exploitations Agricoles/ Agricultural Farms Sustainability Indicators.
The sample was composed of 62 farmers, 32 organic farmers and 30 practice conventional farming. An economic analysis was carried out aiming at evaluating sustainability of these farms and to ensure comparison between organic and conventional mode of production.

A. The agro-ecological sustainability indicators

The agro-ecological sustainability component involves some indicators characterizing the effect of agricultural activity on environment.

B. The socio-territorial sustainability indicators

This indicator characterizes the degree of farm insertion in the society, evaluates the life quality of farmers and the importance of services they offer to society. It informs on the role of farms in employment and their contribution in the human well-being.

III. RESULTS
C. Economic sustainability indicators

The economic scale of sustainability results indicate the technical and financial orientations of the production system, analyzes the economic results beyond the short run and the economic risks. This dimension has been studied by the agricultural economists who usually use many economic and financial management ratios. Indeed, the continuity of a production system depends on economic viability but also on economic independence, transmissibility and efficiency.

IV. CONCLUSIONS

This research aims to study Tunisian olive-growing farms sustainability and to compare the sustainability level between organic and conventional farms using the French “IDEA” method. This research has the specificity of taking into account ecological, human and economic factors compared to the traditional economic analyses which were limited only to economic factors, and ecological analyses often limited to environmental factors. The methodology used combines ecosystem, social well-being, economic efficiency, and farmers’ incomes. The Tunisian olive-growing sector is confronted with a great challenge to be respectful for environment, preserve natural resources, maintain production for future generations, allow safe and sufficient food, maintaining social and human equity and to be socially acceptable, and economically profitable.

REFERENCES