IS ORGANIC FARMING -UNDER CURRENT SATUS- A PROFITABLE ALTERNATIVE TO CONVENTIONAL FARMING GROWERS IN MENOFIA GOVERNORATE?

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ABSTRACT

Organic farming must be seen as a process of learning and adaptation, which results in meeting household objectives, for sustainable and adequate food production, increasing environmental resilience and social capacity. In general, organic agriculture activity in Egypt is growing very fast due to the public awareness as well as to the increasing demands for organic food and fibers on both local and export markets. The number of farms reached more than 300, with a total acreage of more than 10 000 feddans (4167 hectares). This paper discusses the experience of organic farming in Menofia governorate. The results reveal that net profit per feddan for conventional farming is higher than organic farming for all investigated crops (nili potatoes, dry beans, nili peas and summer tomatoes), the situation that might slower the adoption of organic in Menofia governorate. Lacks of proper marketing and market information, lower yields and higher production costs are presumably the main factors affected organic products net profitability.

Keywords: Organic Farming, Conventional Farming, Menofia.

INTRODUCTION

Organic Farming: General Overview and Meaning

Organic agriculture is developing rapidly and being practiced in more than 120 countries all over the world. Its share of agricultural land and farms continues to grow in many countries. Furthermore, it can reasonably be assumed that uncertified organic farming is practiced in even more countries (Yussefi and Willer, 2009).

Owing to Lal (2004), there is with sustainable agriculture, a variety of definitions of organic farming. Mannion (1995) refers to it as a holistic view of agriculture that aims to reflect the profound interrelationship that exists between farm biota, its production and the overall environment. Scofield (1986) stresses that, organic farming does not simply refer to the use of living materials, but emphasizes the concept of 'wholeness', implying the "*systematic co-ordination of parts in one whole* "(p.5). As Scofield points out, the concerns that motivated the early exponents of organic farming are still very much part of the current debates over agriculture sustainability, including issues of soil health and structure, the exhaustible nature of artificial fertilizers and human health. Northbourne (1940), the person credited with first using the term organic farming, advocated a society made up of small self-contained units, a view that has a strong role in modern environmental movements, where there is often a rejection of large impersonal units of production, where both people and nature are viewed as being subordinated to the machine or corporate identity. This rejection of the concentrated of specialized production in fewer, larger units, was most famously articulated in recent years by Schumacher (1973) in "*Small is Beautiful*" (Scofield 1986).

Lampkin (1994) suggested a modern definition for organic farming stating that, "the aim is to create integrated, humane, environmentally and economically sustainable production systems, which maximize reliance on farm-derived renewable resources and the management of ecological and biological processes and interactions, so as to provide acceptable levels of crop, livestock and human nutrition, protection from pests and disease, and an appropriate return to the human and other resources" (p.5).

One of the most significant expositions of the aims and principles of organic farming is that presented in the International Federation of Organic Agriculture Movements basic standards for production and processing (IFOAM, 1998), these are presented in Table 1. As this statement makes clear, the scope of the principles extends beyond simple biophysical aspects to matters of justice and responsibility.

There are two levels of organic farming, certified organic production and non-certified or agro-ecological farming. Certified production is mostly geared to products destined for export beyond country's shores. However, local markets for certified organic products are growing especially in Egypt, South Africa, Uganda, Kenya and Tanzania. Statistics for certified production are probably incomplete, (most countries do not have data collection systems for organic farming). Certified organic farming is relatively underdeveloped, even in comparison to other low-income continents. Organic certification is mainly organized under participatory guarantee systems, in this case an Internal Control System operated by a farmers' group linked to an exporter, who holds the organic certificate.

TBLE 1: THE PRINCIPLE AIMS OF ORGANIC PRODUCTION AND PROCESSING

- to produce food of high quality in sufficient quantity
- to interact in a constructive and life-enhancing way with natural systems and cycles
- to encourage and enhance biological cycles within the farming system, involving microorganisms, soil flora and fauna and plants and animals
- to maintain and increase long term fertility of soils
- to promote the healthy use and proper care of water, water resources and all life therein
- to help in the conservation of soil and water
- to use, as far as possible, renewable resources in locally organized agricultural systems
- to work, as far as possible, within a closed system with regard to organic matter and nutrient elements
- to work, as far as possible, with materials and substances which can be reused or recycled, either on the farm or elsewhere
- to give all livestock conditions of life which allow them to perform the basic aspects of their innate behavior
- to minimize all forms of pollution that may result from agricultural practice
- to maintain the genetic diversity of the agricultural system and its surroundings, including the protection of plant and wildlife habitats
- to allow everyone involved in organic production and processing a quality of life conforming to the UN Human Rights charter, to cover their basic needs and obtain an adequate return and satisfaction from their work
- to consider the wider social and ecological impact of the farming system
- to produce non-food products out of renewable resources, which are fully biodegradable
- to encourage organic farming associations to function along democratic lines and the principle of division of powers
- to progress towards an entire organic production chain, which is both socially just and ecologically responsible

Adopted from Rigby and Caceres (2001)

Many of the smallholder groups are technically supported through development aid programs. Such as, the Swedish financed Export Promotion of Organic Products from Africa (EPOPA), and the EU supported COLEACP-PIP programs, which have stimulated the development of the organic sector in a number of countries, including, Cameroon, Egypt, Ghana, Kenya, Madagascar, Senegal, Sudan, South Africa, Tanzania, Tunisia, Uganda and Zambia, Zimbabwe. Most smallholders in these programs will only use part of their land for their export cash crop, using the remainder for household consumption and local markets. Occasionally out grower schemes, which are hybrids of these two forms, exist whereby large plantations buy in additional produce from these certified smallholder farmers.

Moreover, organic agriculture is showing itself to be a viable sustainable development option. Adopting organic agriculture does not mean a return to some form of low technology, backward or traditional agriculture – but involves pursuing a blend of innovations originating from a participatory intervention involving scientists and farmers. The organic farming system emphasizes management over technology and biological relations and natural processes over chemically intensive methods (IFOAM, 2004).

In 2010 (according to the latest survey on worldwide organic farming) [1], data on organic agriculture are available for 160 countries. There are 37 million hectares of organic agricultural land (including in-conversion areas). The regions with the largest areas of organic agricultural land are Oceania (12.1 million hectares), Europe (10 million hectares), and Latin America (8.4 million hectares). The countries with the most organic agricultural land are Australia, Argentina, and the United States (see Figure 1A) .

Compared with the previous survey (data per end of 2009), the organic agricultural land decreased slightly (by 50'000 hectares, -0.1 percent). There was strong growth in Europe, where the area increased by 0.8 million hectares (+9 percent). In Asia, however, the organic area decreased, mainly due to a major decline of organic farmland in India and China. The countries with the largest increases were in Europe: France (+0.17 million hectares), Poland (+0.15 million hectares), and Spain (+0.13 million hectares).

There were 1.6 million producers in 2010. Thirty-four percent of the world's organic producers are in Africa, followed by Asia (29 percent), and Europe (18 percent). The countries with the most producers are India (400'551), Uganda (188'625), and Mexico (128'862).

The most important permanent crops are coffee (with 0.64 million hectares), constituting almost one-fifth of the organic permanent cropland), followed by olives (0.5 million hectares), cocoa (0.29 million hectares), nuts (0.26 million hectares), and grapes (0.22 million hectares). Regarding the wild collection area (including areas for beekeeping), most of this is in Africa (39 percent of the global total) and Europe (30 percent). Not much detail on the crops harvested is available. Wild berries, medicinal and aromatic plants as well as wild fruit are among the most important ones.

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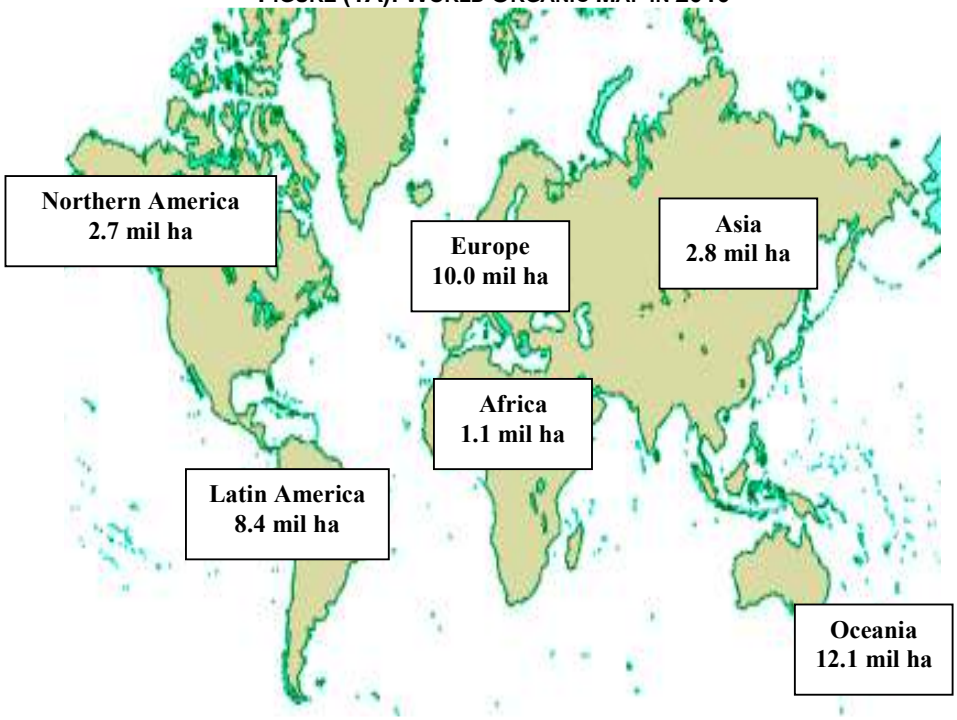
[1] Research Institute of Organic Agriculture FiBL and International Federation of Organic Agriculture Movements IFOAM, 2012

FIGURE (1A): WORLD ORGANIC MAP IN 2010

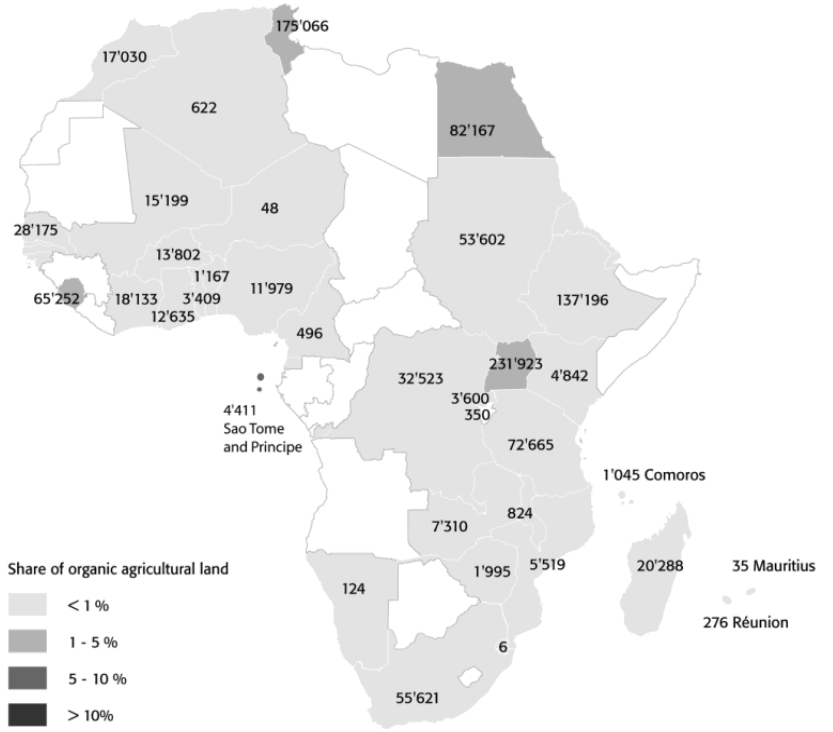


In Africa, there are slightly more than one million hectares of certified organic agricultural land. This constitutes about three percent of the world's organic agricultural land. There were 540'000 producers (in 2010). The countries with the most organic land are Uganda (0.23 million hectares), Tunisia (0.18 million hectares), and Ethiopia (0.14 million hectares). The highest shares of organic land are in Sao Tome and Prince (7.9 percent), Sierra Leone (1.9 percent), and Tunisia (1.8 percent). The majority of certified organic produce in Africa is destined for export markets; in Uganda, the export value for organic products was 42 million US dollars in 2010/2011; in Ethiopia, it was 33.9 million US dollars in 2010. Key crops are coffee, olives, cocoa, oilseeds, and cotton. Cotton for instance has been important for the development of the sector in Benin (see Figure 1B).

The European Union is Africa's largest market for agricultural produce. The development of organic agriculture in Africa is entering a new phase. There is a growing recognition among policy makers that organic agriculture has a significant role to play in addressing the pressing problems of food insecurity, poverty, and climate change in Africa. Significant breakthroughs were achieved in 2011; especially the African Union's (AU) decision to support organic farming and their subsequent leadership in

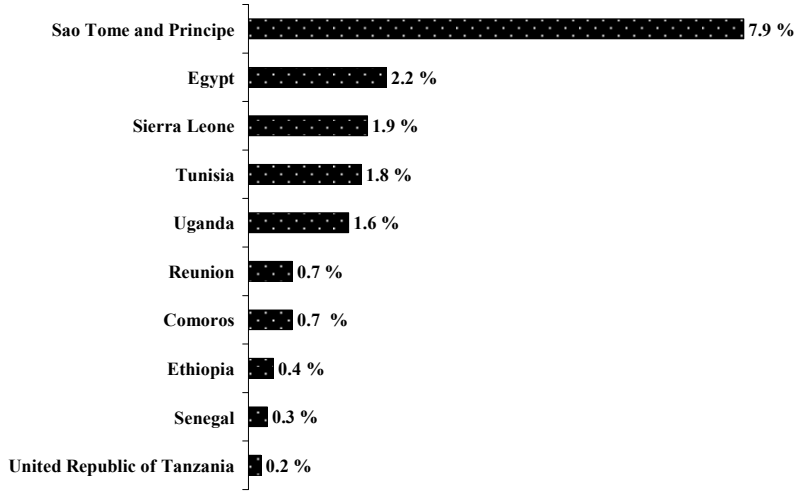
promoting and further developing frameworks/strategies for organic farming policies.

FIGURE (1B): AFRICA ORGANIC MAP IN 2010



The leading country in terms of organically managed agricultural land is Uganda with 231'923 hectares. However, when organically managed land is measured as a percentage of each country's agricultural area, Sao Tome and Prince rank highest with 7.9 percent, followed by Egypt (2.2%), Sierra Leone and Tunisia (1.9% on average), Uganda (1.6%), Reunion and Comoros (0.7) and Ethiopia, Senegal and Tanzania (0.3% on average) see Figure 1C

FIGURE (1C): THE TEN COUNTRIES IN AFRICA WITH THE HIGHEST SHARES OF ORGANIC AGRICULTURAL LAND IN 2010



Source: International Federation of Organic Agriculture Movements IFOAM

Organic Farming in Egypt

A General Overview

The Egyptian agriculture has been fully organic for more than ten thousand years and until 1940. Since the beginning of agricultural activities in the Nile Delta and Valley and due to the high fertility of these soils, there was no need for any kind of fertilizers particularly in soils detonated to be flushed and flooded every year by new fresh mud brought from the jungles of Ethiopia, Uganda and South of Sudan. In such a system, animal urine and manure were saved for crop production. Natural agents for disease and insect control were used and are still being used in some areas nowadays. Most of these agricultural practices were documented on the temple's walls during the Pharaonic time, 5000-7000 years ago. These agricultural practices had been the main bases for agriculture and ecosystem sustainability for thousands of years. Since 1940 the development of agricultural practices focusing on short-term productivity based on an intensive use of external inputs, such as chemical fertilizers and pesticides, introduced a fragile system of monocultures. This new system revealed to have many negative environmental impacts and harmful health hazards for both humans and animals. Serious threats on farmers, due to the use of chemicals, are increasing. Pollution of the Nile as a direct result of the intensive use of agro-chemicals causes a real health hazard for all Egyptian citizens. Certified organic agriculture started in Egypt 23 years ago in the eastern desert where a small farm (Sekem) of about 17 ha produces medicinal herbs for export market. Expansion of this activity was quite slow until 1988. Thereafter, a rapid growth has occurred in the biodynamic production of vegetables

(potatoes - onions - garlic - beans - pepper - cucumber - cantaloupe - strawberry - tomato - carrots - peas - courgette), fruits (grapes - citrus - apricot - peach - apple), cereals, cotton and medicinal herbs. This rapid growth was initiated mainly by Sekem and by some other growers in Fayum and Kalubia governorates. In 1995, a new group of organic growers established the Union of Growers and Exporters of Organic and Biodynamic Agriculture (UGEOBA).

The Union members produce and trade mainly organic herbs, vegetables, fruits, potato and some cereals. Shortly after, in summer 1998, a new organic project was started by Al-Hoda for agro-manufacturing due to the high market demands for organic fruits and vegetables. At the same time Ever Green Egypt, Sonak, Sultan Farm, Fayum Society of Small Organic Farmers and others got involved in the organic movement.

The organic agriculture activity in Egypt is growing very fast due to the public awareness as well as to the increasing demands for organic food and fibers on both local and export markets. The number of farms reached more than 300, with a total acreage of more than 10 000 feddans (4167 hectares). According to the Egyptian Ministry of agriculture (2000) the total cultivated area is 7.4 million feddans (3083 333 hectares) of which organic farmed areas represent about 0.14%. Beside the certified organic production, in the remote areas, there are more than 500 thousand feddans (208 333 ha) cultivated traditionally without any use of chemicals and depending only on the rain or the underground water for irrigation. From a technical viewpoint, these areas could be easily converted into certified organic production. Organic and bio-dynamic productions in Egypt include all kinds of vegetables, mangetot, sugar snap, baby corn, medicinal herbs, potato, citrus, grape, mango, banana, apricot, strawberry, liquorice, henna, palm date, cereals and cotton.

However, certified organic production only represents a tip of the iceberg of organic farming in Egypt, and evidence is emerging of a far larger agro-ecological movement. Local NGOs and farmers' groups, as well as development agencies are increasingly adopting organic techniques as a method of improving productivity and addressing the very pressing problems of food security faced by all too many growers.

Certified organic farming in Egypt takes two main forms: relatively large farms or plantations under single ownership, like SEKEM, and smallholder groups. These latter groups collectively implement an internal control system that involves organizing extension, inspection, certification and marketing activities, and have strong links with export companies (operators) (IFOAM, 2005).

Organic farming in Egypt must be viewed beyond the perspective of providing commodities for the global market. Rather it should be seen as an agricultural system that "enhances" and "manages" the complexity of the ecosystem rather than reducing and simplifying the biophysical interactions on which agricultural production depends. It consciously integrates and takes advantage of naturally occurring beneficial interactions and the rich layers of indigenous knowledge (Twarog and Kapoor, 2004). Nevertheless, most importantly, organic farming must be seen as a process of learning and

adaptation, which results in meeting household objectives, for sustainable and adequate food production, increasing environmental resilience and social capacity. In recent years, some policy makers and donors have started to recognize the potential of export oriented organic agriculture as a means of generating foreign exchange and increasing incomes. Yet, the broader benefits of organic farming and agro-ecology (in terms of enhancing food security, environmental sustainability and social inclusion and reducing exposure to toxic pesticides) often go unrecognized or are simply ignored. However, with the growth of the organic agriculture sub-sector, more growers (of which some of them were opposing) are more carefully scrutinizing these packages.

Table 2 and Figures 2A and 2B indicate that organic agricultural land and number of producers in Egypt has increased over the available set of data. For example, the organic agricultural land has nearly tripled from 34 thousand feddan in 2006 to about 96 thousand feddan in 2008 and further to 133 and 195 thousand feddan in 2009 and 2010 respectively, with an annual growth rate of 46%. Similarly, the number of organic producers nearly doubled from about 450 producers in 2006 to about 790 in 2010. Notably, the boom for both the planted area and consequently the number of producers could be observed from 2007 to 2008, presumably due to the high revenues that organic agriculture had generated, the case that encouraged more farms to get involved. Moreover, all coefficients are statistically significant from zero at the 1 % level of significance

Government Policy For Organic Farming

Owing to (Hashem, 2006), the Egyptian organic agriculture moment was started in the 1970s by SEKEM, a non-governmental organization which applied organic techniques to a parcel of land and grew into a full-fledged, socially-responsible business, earning it the Right Livelihood Award for its efforts in 2003 (SEKEM, 2006). SEKEM created the Egyptian Biodynamic1 Association, and other organizations have also been created.

The Egyptian government began working with the NGOs in the early 1990s to support organic practices. Since the 1950s, Egyptian farmers had begun using large amounts of pesticides to grow cotton, which caused environmental and health problems. In 1990, the government asked SEKEM to develop an organic system to grow cotton. Since 1994, the government widely promoted these techniques and banned aerial spraying of pesticides, leading to a dramatic reduction in pesticides used on cotton (Merckens, 1999). In 1997, farmers planted 500 000 ha of cotton without the use of pesticides (SEKEM, 2006).

TABLE 2: THE TRENDS OF ORGANIC PLANTED AREA AND NUMBER OF ORGANIC AGRICULTURAL PRODUCERS IN EGYPT THROUGH THE PERIOD 2006-2010

Coefficients			SE	T ratio	P value	F (Calculated)
Organic Agricultural Planted Area	α	9.94**	0.12	80.4	0.000	151.0**
	β	0.46**	0.04	12.3	0.001	
	R^2	0.98				
Number of Organic Agricultural Producers	α	5.97**	0.18	32.28	0.000	8.46*
	β	0.16*	0.06	2.90	0.050	
	R^2	0.74				

FIGURE (2A): ORGANIC PLANTED AREA DURING THE PERIOD 2006-2010

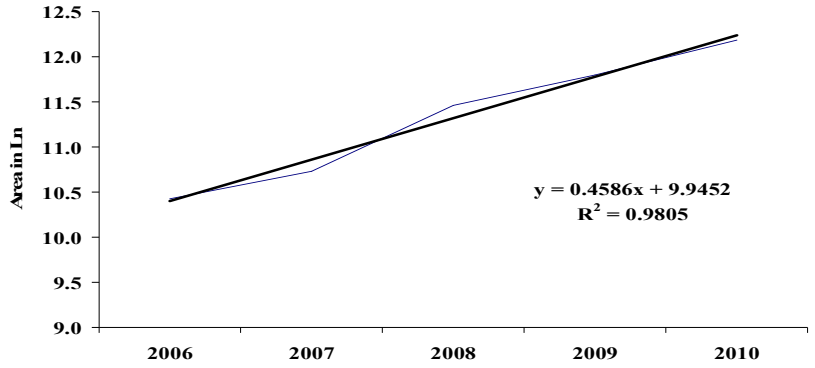
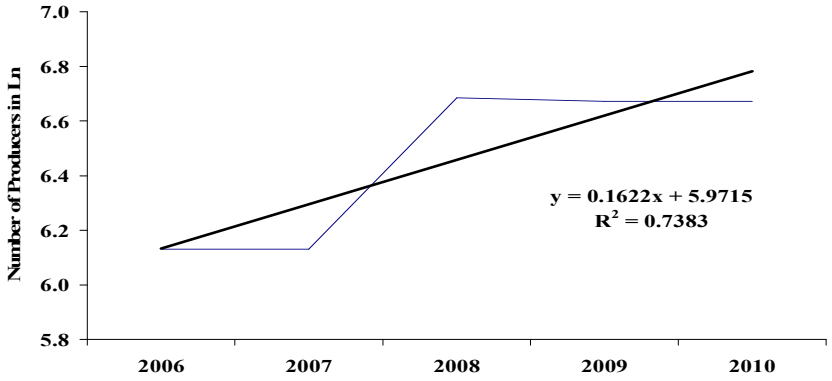


FIGURE (2B): NUMBER OF ORGANIC PRODUCERS DURING THE PERIOD 2006-2010



Source: author calculations (*MicroFit 4* computer results)

The Egyptian government supports organic agriculture research within the Ministry of Agriculture (See "Research, training and extension for organic agriculture"). In October 2002, the Ministry of Agriculture created the Central Laboratory for Organic Agriculture (CLOA). The CLOA's specific functions are to:

- Enhance organic farming among agricultural extension specialists, farmers, processors and exporters to increase public awareness.
- Establish a database on organic farming.
- Coordinate the work of the certification bodies working within Egypt.
- Make specifications for organic products sold in the local market and export.
- Carry out research to solve problems concerning organic agriculture"

Article's Structure

The paper is structured as follows. The next section briefly discusses the aim of the paper. Data collection is the subject of part three The forth section is devoted to give a background on organic farming in Menofia governorate. The fifth section discusses the estimated results. A SWOT analysis is the main topic for section six. The seventh and last section is devoted to conclusion.

Aim of the Paper

The objective of this paper is to explore organic farming practice compared to conventional farming in Egypt spotting the light on the experience of Menofia governorate. In addition to access the potentiality and problems of such sector. Finally, to introduce some suggestions to enhance the organic agricultural sector.

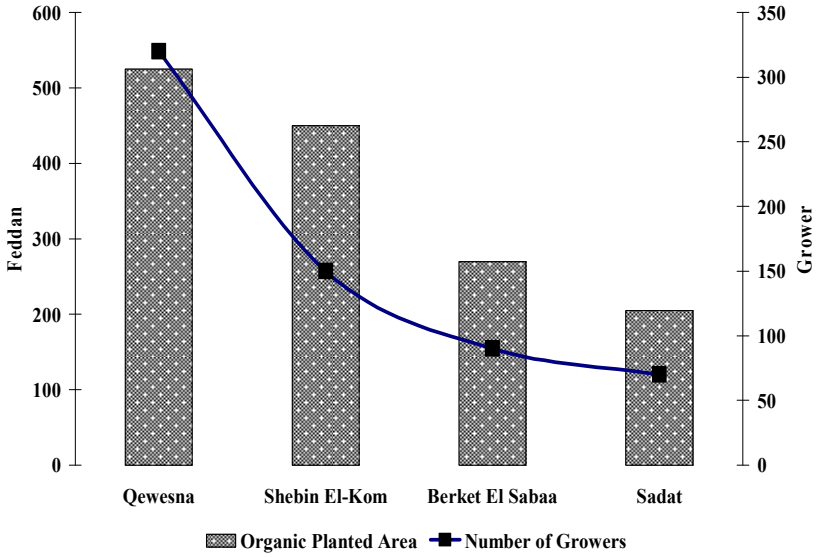
Data

Data is mainly obtained from Agricultural Economics Research Institute (AERI), Research Institute of Organic Agriculture, International Federation of Organic Agriculture Movements (IFOAM), Food and Agriculture Organization on line statistical database (FAO) and published research papers. The study focuses on nili (potatoes, peas and dried string beans) in addition to summer tomatoes as the common and most important organic vegetables grown in Menofia governorate.

Organic Farming in Menofia Governorate: A Background

Only four districts are adopting organic farming in Menofia governorate. Figure 3 shows that Qewesna comes first in terms of organic planted area representing about 36% of total organic area in Moenofia governorate, next comes Shebin El-kom (31%), Berket El-Sabaa (19%) and finally Sadat city (14%). The same rank could be observed for the number of organic producers that accounts for 320, 150, 90 and 70 producers in Qewesna, Shebin El-kom, Berket El-Sabaa and Sadat city respectively.

FIGURE (3): ORGANIC PLANTED AREAS AND NUMBER OF ORGANIC PRODUCERS IN MAIN MENOFIA PRODUCING DISTRICTS DURING 2009-2010



RESULTS

Main Findings

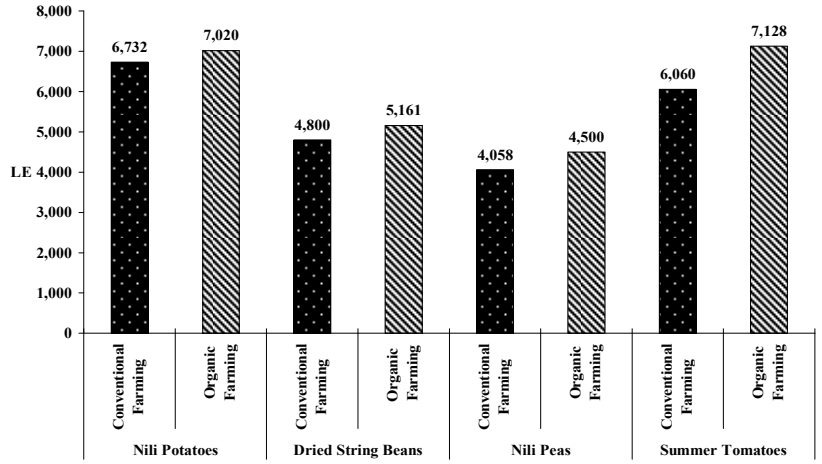
In general, Table 2 and figure 4 depict that average costs of production per feddan for organic farming are shown to be higher than conventional farming for all studied crops with different levels. However, summer tomatoes is ranked the first with a difference in production cost per feddan reached about LE 1068 followed by nili peas (£E 442), dried beans (£E 361) and nili potatoes (£E 288). The higher cost of organic farming production could be mainly explained by the higher costs of labor.

Moreover, the estimated T test shows a significant difference between conventional and organic total costs for all planted crops.

On the other hand, total revenues per feddan for conventional farming are higher than organic farming. As indicated in Table 2 and Figure 5, the difference between total revenue per feddan for both types of farming for the planted crops, varies between £E 1680 for summer tomatoes and £E 400 for nili potatoes. Meanwhile, it is estimated at £E 1240 and £E 420 for nili peas and dried beans respectively. However, this result is mainly due to lower organic farming productivity compared to conventional farming. For example, the yield per feddan for conventional farming increased by about 1.68 ton for summer tomatoes, 0.4 ton for nili peas and nili potatoes and a slight increase in dried.

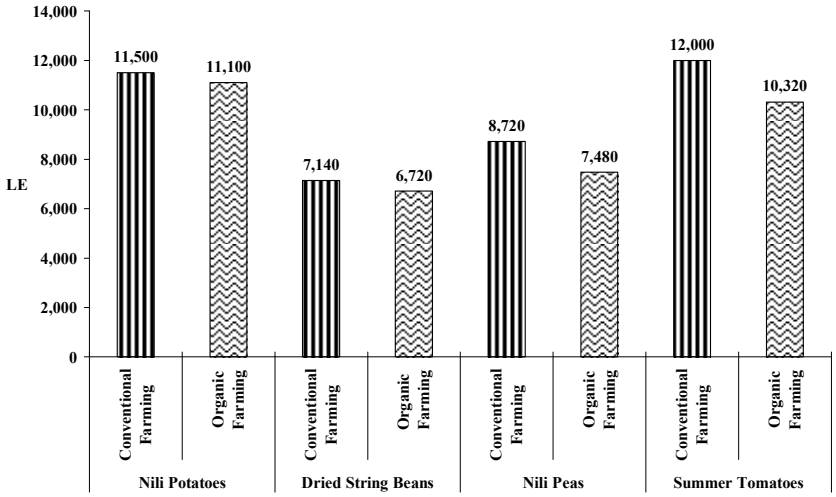
T2

FIGURE (4): A COMPARISON BETWEEN CONVENTIONAL AND ORGANIC FARMING AVERAGE COSTS PER FEDDAN DURING 2009-2010



Source: Collected from Table 3

FIGURE (5): A COMPARISON BETWEEN CONVENTIONAL AND ORGANIC FARMING TOTAL REVENUE PER FEDDAN DURING 2009-2010



Source: Collected from Table 3

beans estimated at only 0.06 ton. In addition, the estimated T test shows a significant difference between conventional and organic total revenues for all planted crops

As expected, the previous analysis mirrors the obtained results for net revenues per feddan. Table 2 shows that net revenue for all planted crops adopting conventional farming are higher than its corresponding revenues for organic farming. In other words, conventional farming net revenues for summer tomatoes, nili peas, dried beans and nili potatoes accounted for £E 5940, £E 4768, £E 4662 and £E 2340 respectively, compared to £E 3192, £E 4080, £E 2980 and £E 1559 for the same planted crops adopting organic farming technique. As a matter of completeness, the estimated T test shows a significant difference between conventional and organic net revenues for all studied crops.

Moreover, the estimated return to invested pound depicts that, it is higher for conventional farming method in all cases (see Table 2). This result indicates the need for higher investments for adopting organic production.

In sum, the results show that conventional farming for nili potatoes, dry beans, nili peas and summer tomatoes is more profitable than organic farming. The case, in which, threatens the presence and adoption of organic farming.

Surprisingly, the results indicate that organic products are traded at same prices as conventional products. However, they should be traded at higher prices either domestically or even more if they are to be exported. Nevertheless, under current situation it leads to lowering the incentives to organic growers.

However, for a more risk-averse farmer, it is only optimal to adopt organic farming, if policy incentives are applied such as taxes on pesticides or subsidies on conversion, or if the market for the organic products becomes more stable Acs et al (2009).

Organic Farming and SWOT Analysis

SWOT Analysis: The Concept and Meaning

In line with Rehber and Turhan (2002), Enache and Cârjilă (2009), Zhang et al. (2009), Bhatta et al. (2009) and Sadek and Shelaby (2011), A SWOT analysis[2] is employed to determine the potential of organic farming, showing its strengths and weaknesses, opportunities and threats. SWOT Analysis - acronym of Strengths, Weaknesses, Opportunities and Threats. It is a technique to structure the current situation of a field or business sector in terms of internal and external critical elements. Moreover, it is an effective method used to identify the potential areas, the priorities for strategic planning and to create a common vision of achieving the development strategy.

Strengths describe the strengths of the analyzed company/field and represent the items that they have at a higher level, which assures a certain advantage to them.

Weaknesses or disadvantages describe characteristics of the area examined, which means lower performance it needs but does not possess.

Opportunities are favorable opportunities from outside and are positive external factors, "opportunities" offered to the field/sector to establish a new

[2] **Relying on the study questioner, interviews and other related previuos studies.**

strategy or to reconsider the existing strategy in order to exploit profitably opportunities arisen.

Threats are obstacles arising from the external evolution and negatively influence of factors, representing situations or events which may affect adversely, in significant measure, field capacity to fully achieve the targets set, resulting in reduced performances. As for opportunities, "threats" of various natures and causes guard permanently, their anticipating or referral for allowing field/company to reconsider their strategic plans to avoid or minimize their impact.

However, Table 3 shows SWOT analysis results that shows strengths, weakness, opportunities and threats for not only organic farming growers in Menofia but for organic farming in Egypt in general, assuming a common circumstances for organic farming growers in Egypt.

Some Recommendations to Enhance the Organic sector in Egypt

In this section, the study provides some suggestions in line with organic products producers mentioned in Hashem (2006). As they have decided collectively the need to decree and/or activate the following policies:

- Support legislation for national organic laws so Egypt can apply to be on the third country list of the EU.
- Support the production of Egyptian standard specifications.
- Improve the farmers' awareness of how to minimize the microbial content of different products.
- Establish one or two laboratories for pesticide residue analysis.
- Encourage the development of the Central Laboratory of Organic Agriculture into a research and extension body, with help from the NGOs, to coordinate the organic movement and disseminate the knowledge and the culture of organic agriculture among farmers and extension staff.
- Encourage and support the establishment of organic and consumer protection associations.
- Establish a database and information centers for organic farming.
- Establish a market information centre for organic produce.
- Encourage exports to international markets.
- Encourage the establishment of an organic exhibition.
- Increase public awareness of organic agriculture and the need for safe food."

TABLE 3: SWOT ANALYSIS RESULTS

Strengths:	Weaknesses:
■ The availability of organic production inputs such as compost and bio-pest control products. ■ Organic farming could be favorable to small-scale growers. ■ High profitability of organic production, (if traded at fair prices). ■ Preventing negative impacts of using chemicals fertilizers and pesticides. ■ Organic farming offers positive ecological benefits and preserving soil quality. ■ Organic farming offers a production of high quality and healthy food.	■ Lack of skilled labor. ■ Absence of market information. ■ Lower yields ■ High local prices for organic stuff. ■ Lack of agricultural extension role in supporting and supplying the required knowledge and techniques for organic growers. ■ Lack of market research studies for potential target markets for Egyptian organic products. ■ Domination of small-scale farms in which growers rely on consuming farm production. ■ High certification and handling costs. ■ Limited awareness toward organic farming
Opportunities:	**Threats:**
■ The high demand for organic stuff in particular in developed countries. The case that leads to more interest in growing organic products in Egypt for exportation. ■ The premium prices of organic products. ■ The warm weather in Egypt allows producers to have a special time window for Egyptian organic products. ■ The governmental support for encouraging exports ■ The introduced support by non governmental organization (NGOs)	■ Weak governmental policies and support. ■ High competition facing Egyptian organic products. In terms of, low production costs of other competing countries (such as African and Latin countries due to lower labor costs), and the escalating high standard production of globally competing growers. ■ Difficulties in pet and disease control. ■ The gradually increasing rate of population that need higher volumes of production. ■ Dependence mainly on foreign markets.

However, in line with Radwan et al (2011), manager characteristics such as his education level and Risk behaviour together with the farm size seem to be the most significant factors affecting the likelihood of organic agriculture adoption in Egypt. In addition, Becchetti et al (2011) concluded that per capita income from organic agriculture is positively and significantly affected by years of organic certification and fair trade affiliation. These results could be helpful to policy makers in designing the suitable policies and strategies to support the extension of organic agriculture within Egypt

CONCLUSION

Organic farming in Egypt must be viewed beyond the perspective of providing commodities for the global market. Rather it should be seen as an agricultural system that “enhances” and “manages” the complexity of the

ecosystem rather than reducing and simplifying the biophysical interactions on which agricultural production depends (Twarog and Kapoor, 2004). In recent years, some policy makers and donors have started to recognize the potential of export oriented organic agriculture as a means of generating foreign exchange and increasing incomes. Yet, the broader benefits of organic farming and agro-ecology (in terms of enhancing food security, environmental sustainability and social inclusion and reducing exposure to toxic pesticides) often go unrecognized or are simply ignored.

This paper accesses the organic farming experience in Menofia governorate. The results suggest that conventional farming for nili potatoes, dry beans, nili peas and summer tomatoes is more profitable than organic farming. The case, in which, threatens the presence and adoption of organic farming. Thus, taking no action should not an option and organic agricultural policies should be reviewed and promoted to enhance and encourage the existence and extension of such sector. In other words, there is a need for: (1) national organic laws; (2) Egyptian standard specifications; (3) improve the farmers' awareness of how to minimize the microbial content of different products; (4) establish laboratories for pesticide residue analysis; (5) developing the Central Laboratory of Organic Agriculture into a research and extension body (6) encourage and support the establishment of organic and consumer protection associations; (7) encourage exports to international markets; (8) establish a database and information centers for organic farming.

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هل يمكن أن تكون الزراعة العضوية (فى الوضع الراهن) بديل مربح للزراعة التقليدية فى محافظة المنوفية؟

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عملية الحصول علي إنتاج زراعي نظيف وخالي من المتبقيات الكيماوية يعد من أهم القضايا الملحة. حيث أن استخدام المبيدات والأسمدة الكيماوية في مجال الزراعة أدى إلي ظهور مشكلات خطيرة علي الإنسان والبيئة بأكملها مثل تدهور أحوال التربة و تلوثها بالإضافة إلي تلوث المنتجات الزراعية وكذلك خفض جودة وصفات الثمار، كما أن التلوث بالمبيدات والأسمدة وصل إلى المياه الجوفية نفسها الأمر الذى يتسبب عنه تأثير ضار على صحة الإنسان وعلى الرغم من ذلك فإن المزارعين مستمرين في استخدامها بشكل مكثف حيث أن المزارع يضع نصب عينيه عنصر الربحية علي حساب أي معيار أخر. وتعد الزراعة العضوية أحد أهداف السياسة البيئية لمختلف للدول حيث يعني بالأمن الغذائي وحسن استخدام الموارد الأرضية إلي جانب تحقيق غذاء آمن وصحى للفرد والمجتمع. يهدف البحث إلى إلقاء الضوء على أهمية الزراعة العضوية و تقييم زراعة المحاصيل العضوية بمحافظة المنوفية. و كذا إجراء التحليل الرباعى (SWOT Analysis) لإمكانات و فرص و نقاط الضعف و التهديدات للزراعة العضوية ، و كذلك تقديم بعض المقترحات للنهوض بهذا القطاع الواعد إذا ما تم الاهتمام به الاهتمام المناسب.

أوضحت نتائج البحث أن منتجى المحاصيل العضوية بمحافظة المنوفية قد حصلوا على انتاجية اقل من مثيلهم من منتجى نفس المحاصيل من متبنى الزراعة التقليدية. و من ثم انعكس ذلك على ربحية المنتج للمحاصيل العضوية و لا سيما أن انتاجهم يباع بسعر المحاصيل المنتجة بالطريقة التقليدية.

كما توصل ابحث الى أن هناك حاجة إلى ما يلى من إجراءات للنهوض بذلك القطاع الهام: (١) سن القوانين الوطنية للزراعة العضوية و إتباع دورة زراعية مواتية، (٢) إرساء المواصفات القياسية المصرية للمنتجات العضوية، (٣) زيادة وعي المزارعين حول كيفية تقليل المحتوى الميكروبي من المنتجات المختلفة، (٤) انشاء مختبرات معتمدة لتحليل بقايا المبيدات للمنتجات الزراعية العضوية ؛ (٥) تطوير المعمل المركزى للزراعة العضوية بهيئة البحوث والإرشاد (٦) تشجيع ودعم إنشاء جمعيات حماية المستهلك للمنتجات العضوية؛ (٧) تشجيع الصادرات إلى الأسواق الدولية؛ (٨) إنشاء قاعدة بيانات و مراكز المعلومات للزراعة العضوية.

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