Challenges in Organic Farming and Marketing
the Organic Products in Tamilnadu

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ABSTRACT
Organic farming means a sustainable agro environmental system in equilibrium. Organic farming is commonly recognized as a farming system that excludes the use of chemical fertilizers and pesticides and genetically modified organisms. Sample sizes of 418 respondents are determined depending upon the pilot study standard deviation values. It is revealed that there is significant association between size of the farm and challenges. Small size farms farmers are having higher association with challenges of cultivation, forming process, information that are related to farming and finally compost and manure related issues. Further, there is significant association between zone of the farm and its owners’ opinion on challenges. And also it is found that there is significant association between type of the farm and its owners’ opinion on micro challenges.

Keywords: Organic farming, challenges and issues.

INTRODUCTION:
“Organic farming is a production process that excludes the use of synthesized chemical products. It is based on a global concept that relies on values such as health, respect for the environment and protection of biodiversity, authenticity, animal care and welfare, social life, and other health aspects”. Organic farming means a sustainable agro environmental system in equilibrium. The system is based on local and renewable resources. Organic farming builds on an integrated ethos, which encompasses the environmental, economic and social aspects in agricultural production both from a local and global perspective. Thus organic farming perceives nature as an entity, which has value in its own rights; human - beings have a moral responsibility to steer the course of agriculture, so that the cultivated landscape makes a positive contribution to the country side, (Jayarathnam, 2005).

As a form of agriculture, organic farming relies on techniques such as crop rotation, green manure, compost and biological pest. It uses natural sources of nutrients (such as compost, crop residues, and manure) and natural methods of crop and weed control, instead of using synthetic or inorganic agrochemicals (Moses Kathuri Njeru, 2015). Organic farming is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. It combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved. Therefore, it is viewed as a method of farming which primarily concentrated in cultivating the land and raising crops without damaging the soil and in good health by use of crop, animal and farm wastes, aquatic wastes (organic wastes) and other biological materials along with bio-fertilizers to release nutrients to crops for increased sustainable production in an eco-friendly pollution free environment, (Kumar Sarvana and Jain, 2003).

Organic farming is commonly recognized as a farming system that excludes the use of chemical fertilizers and pesticides and genetically modified organisms. This is rather simplistic view of organic agriculture as it differs from other farming systems around the management of the entire system (Halpin and Darren et.al 2006).
Organic Farming is the process of producing food by using naturally available resources. This method avoids the use of synthetic chemical fertilizers, pesticides and genetically modified organisms to influence the growth of crops. The main idea behind organic farming is zero negative impact on the environment. The aim of the organic farmer is to protect the earth’s resource (land, water and plants) and produce safe and healthy food. Organic farming uses the earth’s natural resources for sustainability. It emphasizes appropriate land management and aims to ecologically achieve the balance between animal life, the natural environment and food crops. Organic farmers do not use chemical fertilizers, pesticides, herbicides, genetically modified crops, growth promoters or hormones, (Shashikumar, (1987).

Need of Organic Farming in India:
India needs to adopt organic farming on a large scale, because the chemical method of farming has caused damage to the ecology. This method of farming adopted by India and other countries are inherently self destructive and unsustainable. The theme of consumer welfare has become central in the developed countries of the world (Narayanan, 2005). The Indian agriculture has switched over to the conventional system of production on the advent of “Green Revolution” during 1960 to 1970s, (Ashwathaiah and Krishna, 1973). Science and technology have helped India to increase agricultural production from natural resources like land, but this achievement had been at the cost of nature and environment, which supports the human life itself. Burlace, M. (1996) India have to be concerned much more than any other nation of the world as agriculture is the source of livelihood for two third of the people of India. Now the most fundamental research like the land, water and air supporting the human life have degraded to such an extent that they now constitute a threat to the livelihood for millions of people in the country. Dahama (2007) Economical and environmental effects have been highly published all over the world. India has equally contributed in the degradation of ecology. However, there is needed to take remedial measures, (Gosavi 2006),.

Challenges of Organic Farming:
1. Lack of demand will not be a problem, but rather it will be the supply situation. The share of organic products is low. There are still major obstacles to develop the market, which need to be removed, (Alejandro, 2009).
2. A price premium is needed to reward the work of farmers in respect of their contribution to nature conservation and human well being. The price premiums are also an inducement for new farmers to convert into organic agriculture, (Sarvanakumar, 1996).
3. To strengthen the consumer’s confidence and to build local markets, definition and specific rules of organic agriculture should be developed and controlled by the private sector, (Bhattacharyya & Chakraborty (2005).
4. To increase and enhance government policy initiatives and assistance, especially for and during the conversion process.
5. To introduce organic extension services and training for farmers, such as organic farmers field schools.
6. To build up adequate infrastructure for transport, storage and processing and market facilities, (Ram Kumar Singh, 1995).
7. To create a guarantee system of the domestic market, (Singh Sukhpal, 2006).
8. To increase consumer awareness about the safe and environment friendly production of food.
9. To add organic information to the existing oversees reports on markets.
10. To spur production and supply of organic seeds, organic manure, organic bio-fertilizers and bio-pesticides, (Muthuramani, 1995).
11. To provide funds for proper scientific studies on incoming generation, house hold income and food security, yields and soil improvement from organic agriculture, (Sushilkumar and Jabir, 2011).

METHODOLOGY:
This research work has been examined that Challenges in Organic Farming and Marketing the Organic Products in TamilNadu. The study was conducted using a descriptive research design to evaluate organic farming practices and its challenges. Out of the 1052 organic farmers, a sample size of 418 respondents are determined depending upon the pilot study standard deviation values. Further, Chi-Square has been applied to find out the changed based on their farmer characteristic.
ANALYSIS AND DISCUSSION:

Table 1: Association between the Challenges Based on Size of the Farm

| Size of the Farm | Challenges | \( \chi^2 \) | p  |
|-----------------|------------|-------------|----|
|                 | Low Level  | Medium Level| High Level| Total |
| Small Size farm | 40         | 52          | 72       | 164   |
|                 | 24.4%      | 31.7%       | 43.9%    | 100.0%|
| Medium Size farm| 18         | 103         | 37       | 158   |
|                 | 11.4%      | 65.2%       | 23.4%    | 100.0%|
| Large Size farm | 57         | 14          | 25       | 96    |
|                 | 59.4%      | 14.6%       | 26.0%    | 100.0%|
| Total           | 115        | 169         | 134      | 418   |
|                 | 27.5%      | 40.4%       | 32.1%    | 100.0%|

Table 1 explains the association between level challenges on their farming process based on size of the organic farm. For the statistical purpose the size of the farm is classified into three groups such as small size farm, medium size farm and large size farm. It is found that the challenges attain the score as (Low- 115, Medium- 169, and High- 134) based on their size of the farm. Most of the farms owners’ opinion reveals that they had faced medium level challenges on issues that are (a) cultivation, (b) forming process, (c) information that are related to farming and finally (d) compost and manure related issues.

It shows that 103 farm owners’ opinion (65.2%) was the highest score found in this table regarding medium level challenges for the medium Size farm. Only a few of farm owners’ from the large size farm (N=14 and 14.6%) having a medium level pressure on challenges.

Ho: There is no association between challenges based on size of the organic farm

In order to identify the association between size of the farm and their challenges, the chi-square test was applied. It is observed from the above table, the chi-square value is 105.776, and p value is 0.001. So, the null hypothesis is rejected.

It is revealed that there is significant association between size of the farm and challenges. Small size farms farmers are having higher association with challenges of cultivation, forming process, information that are related to farming and finally compost and manure related issues.

Table 2: Association between Challenges Based on Zone of the farm

| Zone       | Challenges | \( \chi^2 \) | p  |
|------------|------------|-------------|----|
|            | Low Level  | Medium Level| High Level| Total |
| North TN   | 19         | 37          | 41       | 97    |
|            | 19.6%      | 38.1%       | 42.3%    | 100.0%|
| South TN   | 14         | 75          | 17       | 106   |
|            | 13.2%      | 70.8%       | 16.0%    | 100.0%|
| Western TN | 16         | 35          | 49       | 100   |
|            | 16.0%      | 35.0%       | 49.0%    | 100.0%|
| Central TN | 66         | 22          | 27       | 115   |
|            | 57.4%      | 19.1%       | 23.5%    | 100.0%|
| Total      | 115        | 169         | 134      | 418   |
|            | 27.5%      | 40.4%       | 32.1%    | 100.0%|

Table 2 portrays the association between challenges on their farming process based on zone of the organic farm. For the statistical purpose the zone of the farm is classified into four groups such as North TN, South TN, Western TN and Central TN. The challenges are subdivided into three groups such as high level challenges, medium level challenges and low level challenges.

It is concluded from the above table that the level challenges attains the score as (Low- 115, Medium- 169, and High- 134) based on their zone of the farm. Most of the farms owners’ opinion reveals that they had faced medium level challenges on issues that are (a) cultivation, (b) forming process, (c) information that are related
to farming and finally (d) compost and manure related issues.

Its shows that 66 farm owners’ opinion (57.4%) was the highest score found in this table regarding low level micro challenges for the Central TN Zone farm. Only few of farm owners’ from the South TN zone farm (N=14 and 13.2%) having a low level pressure on micro challenges.

Ho: There is no association between challenges based on zone of the organic farm

In order to identify the association between zone of the farm and their challenges, the chi-square test was used. It is observed the chi-square value is 113.336, and corresponding P-value is 0.001. Hence, the null hypothesis is rejected.

It is concluded that there is significant association between zone of the farm and its owners’ opinion on micro challenges. Respondents who belong to the Western Tamilnadu zone having higher level challenges faced when compared other zone farm owners.

Table 3: Association between Challenges Based on type of the organic farm

| Type of Farm      | Challenges       | Low Level | Medium Level | High Level | Total | $\chi^2$ | p    |
|-------------------|------------------|-----------|--------------|------------|-------|----------|------|
| Vegetable Farm    |                  | 82        | 27           | 47         | 156   | 102.904  | 0.001|
|                   |                  | 52.6%     | 17.3%        | 30.1%      | 100.0%|          |      |
| Fruit Farm        |                  | 10        | 27           | 34         | 71    |          |      |
|                   |                  | 14.1%     | 38.0%        | 47.9%      | 100.0%|          |      |
| Field Crops Farm  |                  | 23        | 115          | 53         | 191   |          |      |
|                   |                  | 12.0%     | 60.2%        | 27.7%      | 100.0%|          |      |
| Total             |                  | 115       | 169          | 134        | 418   |          |      |
|                   |                  | 27.5%     | 40.4%        | 32.1%      | 100.0%|          |      |

Source: primary data

Table 3 elaborates the association between challenges on their farming process based on type of the organic farm. For the statistical purpose the type of the farm is classified into three groups such as vegetable crops, fruit and field crops.

It is determined that the micro level challenges attain the score as (Low- 115, Medium- 169, and High- 134) based on their type of the farm. Most of the farms owners’ opinion reveals that they had faced medium level challenges on issues that are (a) cultivation, (b) forming process, (c) information that are related to farming and finally (d) compost and manure related issues.

The shows that 115 farm owners’ opinion (60.2%) was the highest score found in this table regarding medium level challenges for the field crops type farm. Only few of farm owners’ from the vegetable crops type farm (N=27 and 17.3%) having a medium level pressure on micro challenges.

Ho: There is no association between type of the organic farm and its owners’ opinion on level of challenges

In order to chi-square test was applied to identify the association between type of the farm and their challenges. It is observed from the above table, the chi-square value is 102.904 and p value is 0.001. Therefore, the null hypothesis is rejected. It is found that there is significant association between type of the farm and its owners’ opinion on challenges. 52.6 percent of the vegetable crops farm owners have facing low level pressure on challenges.

CONCLUSION:

Organic Farming is the process of producing food by using naturally available resources. This method avoids the use of synthetic chemical fertilizers, pesticides and genetically modified organisms to influence the growth of crops. The main idea behind organic farming is zero negative impact on the environment. The aim of the organic farmer is to protect the earth’s resource (land, water and plants) and produce safe and healthy food. Organic farming uses the earth’s natural resources for sustainability. It emphasizes appropriate land management and aims to ecologically achieve the balance between animal life, the natural environment and food crops. Organic farmers do not use chemical fertilizers, pesticides, herbicides, genetically modified crops, growth promoters or hormones. This study taken up the issues of challenges involved in organic farming and in marketing. Well hypothesis were framed and it is based on questionnaire framed with help of experts.
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