Journal of Pharmacognosy and Phytochemistry
Available online at www.phytojournal.com

E-ISSN: 2278-4136
P-ISSN: 2349-8234
JPP 2019; SP2: 356-358

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To study the extent of adoption of organic farming practices by the farmers in Krishnagiri District

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Abstract
Agriculture in developing countries must undergo a significant transformation in order to meet the related challenges of achieving food security and responding to climate. Projections based on population growth and food consumption patterns indicate that agricultural production needs to increase by at least 70 percent to meet demands by 2050. Most estimates also indicate that climate change is likely to reduce agricultural productivity, production stability and incomes in some areas that already have high levels of food insecurity. In this scenario organic farming is thus considered to achieving future food security. Keeping in mind the advantage of organic farming practices. The present study was undertaken to study the extent of adoption of the identified organic farming practices by the respondents in Krishnagiri district of Tamil Nadu state. One hundred and twenty farmers of both sexes served as respondents of the study. The extent of adoption of organic farming practices in paddy cultivation by the respondents is as follows. 'Spraying of Neem oil before flowering stage to manage sucking pest' (90.00 per cent), 'Neem kernal extract at 5 per cent to reduce pest attack' (90.00 per cent), 'Paddy seeds are stored with Ipomea leaves to control storage pest' (63.66 per cent).

Keywords: organic farming, farmers, agriculture

Introduction
Organic farming "is a production system which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators, and livestock feed additives. To the maximum extent feasible, organic agriculture systems rely upon crop rotations, crop residues, animal manure, legumes, green manure, off-farm organic wastes, mechanical cultivation, mineral bearing rocks, and aspects of biological pest control to maintain soil productivity, tilt, to supply plant nutrients, and to control insects, weeds, and other pests". (USDA, 1980). The concept of the soil as a living system which must be "fed" in a way that does not restrict the activities of beneficial organisms necessary for recycling nutrients and producing humus is central to this definition.
"Organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including bio-diversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using wherever possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system"(FAO, 1999).
Organic farming system in India is very old and is being followed from ancient time. It is a method of farming system which primarily aimed at cultivating the land and raising crops in such a way, as to keep the soil alive and in good health by the use of organic wastes (crop, animal and farm wastes, aquatic wastes) and other biological materials along with beneficial microbes (bio fertilizer) to release nutrients to crops for increased sustainable production in an eco friendly pollution free environment. In the recent days people have started realising the significance of organic farming and its role in food security and sustainable agricultural development. Considering the important of organic farming an attempt is made to analyse the organic farming practices of the farmers of Krishnagiri district.

Materials and Methods
Keeping in mind the advantage of organic farming practices. The present study was undertaken to study the organic farming practices followed by the farmers in Krishnagiri district of Tamil Nadu state. The specific objective of the was to find out the extent of adoption of the identified organic farming practices by the respondents. One hundred and twenty farmers of both sexes served as respondents of the study. Proportionate random

sampling technique was followed for the selection of farmer respondents. The independent variables for the study were identified based on judge's opinion. Group discussion with farmers, key informant method participant and non-participant observation in addition to the pre-tested interview schedule were used for the collection of data.

Results and Discussion

Extent of Adoption of Organic Farming Practices

The findings on the extent of adoption of organic practices by the respondents in crop viz., Paddy and Pulses are presented and discussed in this section.

Extent of adoption of respondents on organic farming practices in paddy cultivation

The findings on the extent of adoption of various organic farming practices in paddy cultivation are presented in Table 1.

Table 1: Distribution of respondents according to their extent of adoption of organic farming practices in paddy cultivation (n=120)

S. No	Organic farming practices in paddy cultivation	Number of respondents	Percent
1.	Spraying of Neem oil before flowering stage (to manage sucking pest)	108	90.00
2.	Neem kernal extract at 5 per cent (to reduce pest attack)	108	90.00
3.	Paddy seeds are stored with Ipomea leaves to control storage pest	76	63.66
4.	Hot water treatment of seeds (to control seed born diseases)	72	60.00
5.	Applying green leaf manure (Nutrient management)@6.25tonne/ha	68	56.66
6.	Applying Bio-fertilizers	56	46.67

It is observed from Table 1that the extent of adoption of organic farming practices in paddy cultivation by the respondents is as follows. 'Spraying of Neem oil before flowering stage to manage sucking pest' (90.00 per cent), 'Neem kernal extract at 5 per cent to reduce pest attack' (90.00 per cent), 'Paddy seeds are stored with Ipomea leaves to control storage pest' (63.66 per cent), 'Hot water treatment of seeds to control seed born diseases (60.00 per cent), 'Applying green leaf manure (Nutrient management)@6.25tonne/ha' (56.66 per cent), 'Applying Bio-fertilizers' (46.67 per cent). The application of bio-fertilizer is low because of high cost and lack of awareness among the respondents. This findings is accordance with the findings of (Kalirajan, 2001).

Extent of adoption of organic Farming practices in pulses cultivation

The findings on the extent of adoption of organic farming practices in pulses cultivation are presented in Table 2.

Table 2: Distribution of respondents according to their extent of adoption of organic farming practices in pulses cultivation (n=120)

S. No	Organic farming practices in pulses cultivation	Number of respondents	Percent
1.	Red gram seeds are mixed with red earth slurry, dried and stored to avoid storage pests.	112	95.75
2.	Neem oil or groundnut oil is mixed with red gram seeds before storing them to protect and seeds from storage pests.	112	95.75
3.	Cowpea pods are sun dried until they become brittle.(Improves vitamin)	100	85.47
4.	Harvested green gram is mixed ash 2per cent and dried to control the storage pests.	80	68.37
5.	Application of neem cake at 150 kg/ha basally to reduce root rot and also to have nematostatic action against cyst nematode	80	68.37
6.	Nochi(Vitex negundo) leaves are incorporated in pulses before storage	68	58.14
7.	Pulses seeds are stored with the naythulasi (*Ocimum canum*) seeds before storage pests.	56	47.86
8.	Soil application of pseudomonas fluorescence@2.5 kg/ha mixed with 50kg of well decomposed FYM and sand at 30 days after sowing	48	41.03
9.	Seed treatment with pseudomonas fluorescence at the rate of 10gm/kg of seeds 24 hours before sowing for controlling the disease of root rot in blackgram	40	34.18

It could be noted from Table 2 that the extent of adoption of organic farming practices in pulses cultivation by the respondents is as follows. 'Red gram seeds are mixed with red earth slurry, dried and stored to avoid storage pests' (95.75 per cent), 'Neem oil or groundnut oil is mixed with red gram seeds before storing them to protect and seeds from storage pests' (95.75 per cent), 'Cowpea pods are sun dried until they become brittle. Improves vitamin' (85.47 per cent), 'Harvested green gram is mixed ash 2per cent and dried to control the storage pests' (68.37 per cent), 'Application of neem cake at 150 kg/ha basally to reduce root rot and also to have nematostatic action against cyst nematode' (68.37 per cent), 'Nochi(Vitex negundo) leaves are incorporated in pulses before storage' (58.14 per cent), 'Pulses seeds are stored with the naythulasi (Ocimum canum) seeds before storage pests' (47.86 per cent), 'Soil application of pseudomonas fluorescence@2.5 kg/ha mixed with 50kg of well decomposed fym and sand at 30 days after sowing' (47.86 per cent), 'Seed treatment with pseudomonas fluorescence at the rate of 10gm/kg of seeds 24 hours before sowing for controlling the disease of root rot in blackgram' (34.18 per cent). Application of pseudomonas fluorescence is less because of high cost lack of credit facilities.

Conclusion

Organic agriculture is a holistic food production system works with the sustainable use of locally available natural resources. The need to adopt a comprehensive approach for the promotion of organic agriculture by taking cooperation of all stakeholders, environmental friendly technologies, marketing

infrastructure and financial support environmentally friendly for quality and quantity organic food production. The use of FYM, bio-fertilizer and other manure have been found more use full and effective in increasing the soil fertility the information on these aspects need to be popularized. The effective utilization of mass media like radio, television, news paper and farm magazines is extent there for creating wider dissemination of the organic farming practices.

References

1. USDA. Report and Recommendations on Organic Farming. United States Department of Agriculture. Maryland, 1980.
2. FAO. http://www.fao.org/unfao/bodies /COAG/COAG15/X0075E.htm, 1999.
3. Kalirajan V. Adoption of indigenous agricultural practices in Tirunelvelli District of Tamil Nadu, Unpublished M.Sc. (Ag.)Thesis, Annamalai University, Annamalainagar, 2001.