



AN ANALYSIS OF ADOPTION OF ORGANIC FARMING PRACTICES OF TRIBAL FARMERS OF KOLLI HILLS

K. Kanagasabapathi and V. Sakthivel*

Depart. of Agricultural Extension, Faculty of Agriculture, Annamalai University, Annamalainagar-608 002 (T.N.)

Abstract

Organic farming contributes significantly for the sustainable development in agriculture. Organic farming practices of the tribes of Kolli Hills aid for eco-friendly environment and they serve for sustaining the agricultural production. They are based on the principles of agro-ecology. These include improvement and maintenance of agro-eco system, based on conservation of soil water and environment. An attempt was made to identify the extent of adoption of organic farming practices of the tribes of Kolli Hills. Three hundred tribal respondents constituted the sample size. It was found that majority of the tribal farmers have been found to adopt the Organic agricultural practices.

Key words : Organic Farming Practices, Adoption.

Introduction

Organic farming system in India is not new 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 fertilizers) to release nutrients to crops for increased sustainable production in an eco-friendly pollution free environment. To the maximum extent feasible, Organic farming systems rely upon crop rotations, crop residues, animal manures, legumes, green manures, off-farm organic wastes, mechanical cultivation, mineral-bearing rocks, and aspects of biological pest control to maintain soil productivity and tilth, to supply plant nutrients, and to control insects, weeds, and other pests. The aim of organic agriculture, also known as ecological or biological agriculture, is to create integrated, humane, environmentally and economically viable agriculture systems in which maximum reliance is placed on locally or farm-derived renewable resources, and the management of ecological and biological processes. Agriculture was practiced for thousands of years without the use of artificial chemicals. The primary feature of the organic farming is that it helps to protect the long term fertility of soils by maintaining organic matter levels, by promoting soil biological activities and careful

mechanical intervention (Farrington and Martin, 1988; Chamers, 1990).

Kolli Hills is a Serene and Pristine Mountain range, located in the central Tamil Nadu, on the Eastern Ghat, 55 Kms from Namakkal, located at a height of 1370 m. It is 28 Kms long north-south and 19 Kms wide east-west, and the entire block covers an area of almost 440 km². Apart from its historical significance, the mountains are covered with evergreen forests. Important farm products of this mountain range includes coffee, tea, jackfruit, pineapple, black pepper and other spices. Rice and other minor millets form the staple food of the tribal people who inhabit these mountains. The tribal farmers of Kolli Hills noted for their rich indigenous wisdom. They are found to adopt the organic farming practices.

In this context an attempt is made to study the extent of adoption of organic farming practices by the tribal farmers of kolli hills.

Materials and Methods

There are fourteen villages in Kolli Hills and all the villages were included for the study. Kolli Hills is inhabited by the 'Malayali tribes'. Respondents from each village were selected based on Proportionate Random Sampling. Three hundred farmers were selected as respondents for the study. Data collection was done primarily through personal interviews. The respondents were interviewed individually as well as in groups. Besides, observation was done to collect and validate the collected data.

*Author for correspondence : E-mail : sakthivelvaradarajan@yahoo.co.in

Table 1: Extent of adoption of organic farming practices.

(n=300)				
S.No	Organic Farming Practices	Number of Respondents	Percent	Rank
1	Application of farm yard manure to improve the fertility of the soil	300	100.00	I
2	Crop rotation with leguminous crops	290	96.66	II
3	Application of neem extract to control the pests and diseases of the crops	276	92.00	III
4	Application of green manuring with leguminous crops	275	91.66	IV
5	Sheep penning	270	90.00	V
6	Application of green leaf manuring with the leaves of neem, Cednistoona species etc.,	246	82.00	VI
7	Application of cattle dung, cattle urine, poultry droppings	243	81.00	VII
8	Application of crop waste, animal waste and other farm waste	241	80.33	VIII
9	Mulching	220	73.33	IX
10	Cattle penning	213	71.00	X
11	Application of rural compost	211	70.33	XI
12	Application of forest litter	210	70.00	XII
13	Vermi composting	160	53.33	XIII

‘Adoption’ refers to the extent of adoption of indigenous agricultural practices by the respondents in Kolli hills. The responses were content analysed the results emerged from the survey are presented.

Results and Discussion

The extent of adoption of organic farming practices by the tribal farmers of Kolli Hills are presented in Table 1.

It is to be noted from the Table 1 that several organic practices are adopted by a majority of the tribal respondents of the Kolli hills. The adoption of organic farming practices by the tribal farmers of Kolli Hills in the descending order of importance are ‘Application of farm yard manure to improve the fertility of the soil’ (100.00 per cent), ‘Crop rotation with leguminous crops’ (96.66 per cent), ‘Application of neem extract to control the pests and diseases of the crops’ (92.00 per cent), ‘Application of green manuring with leguminous crops’ (91.66 per cent), ‘Sheep penning’ (90.00 per cent), ‘Application of green leaf manuring with the leaves of neem, Cednistoona species etc., ’(82.00 per cent), ‘Application of cattle dung, cattle urine, poultry droppings’, (81.00 per cent), ‘Application of crop waste, animal waste and other farm waste’(80.33 per cent), ‘Mulching’ (73.33 per cent), ‘Cattle penning’ (71.00 per cent), ‘Application of rural compost’ (70.33 per cent), ‘Application of forest litter’(70.00 per cent) and ‘Vermicomposting’ (53.33 per cent).

It is reported that organic farming practices in agriculture contribute significantly for the sustainable agricultural development (Richards, 1985; Roling, 1988; Chambers, 1990; Kanagasabapathi, 2006).

Conclusion

The findings revealed the scenario regarding adoption of organic agricultural practices in the study area. This may serve as an eye opener for the planners and policy makers who aim for sustainable agricultural development. The potentiality and advantages of valid organic farming practices can be informed to the farmers of other regions also. The extension agencies should take right step to make available all infrastructures coupled with adequate supply of technical inputs and services.

Acknowledgement

Authors are thankful to Annamalai University, Annamalai Nagar, Tamil Nadu - 608 002, India.

References

- Chambers, R. (1990). Micro-environments Unobserved. In: Proceedings of the International Symposium on Natural Resources Management for a Sustainable Agriculture, R.P. Singh (ed), New Delhi.
- Farrington, J. and A. Martin (1988). Farmer Participation in Agricultural Research: A Review of Concepts and Practices. Agricultural Administration Unit, Occasional Paper 9. London: ODI.
- Kanagasabapathi, K. (2006) Suggestions for Promoting Indigenous Knowledge System for Attaining Sustainable Agricultural Development in Dryland Areas, International Symposium on Drylands Ecology and Human Security, Dubai (UAE).
- Richards, P. (1985). Indigenous Agricultural Revolution: Ecology and Food Production in West Africa. Boulder: West view press.
- Roling, N. (1988). Extension Science: Information Systems in Agricultural Development, Cambridge University Press.