

Suggestions for the increase use efficiency of eco-friendly agricultural practices for sustainable paddy cultivation

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ABSTRACT

A study was conducted during 2004 to know the suggestions offered by the eco-friendly paddy farmers for the increase use efficiency of eco-friendly agricultural practices in paddy in Pudukottai district in Tamilnadu. The results revealed that provision of credit facilities, subsidy for inputs such as seeds, bio-fertilizers, bio-pesticides, farm implements etc., adequate training programmes and demonstrations, timely and adequate quantity of inputs and regulated market for marketing the eco-friendly produce were the most important suggestions expressed by more than 80 per cent of farmers to follow the eco-friendly agricultural practices. Creation of awareness about bio pesticides and bio control agents through campaigns, radio, television and news paper, formation of eco-clubs were suggested by more than 70 per cent of the farmers. Introduction of more eco-friendly agricultural practices by research system and providing technical guidance and creation of awareness about the input supply offered by the state and central government were suggested by more than 60 per cent of the farmers. So, the policy makers, development workers, researchers and extension officials should involve effectively to sustain agriculture through eco-friendly agricultural practices.

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INTRODUCTION

During the last four decade, spectacular progress has been achieved in agricultural production in the country. Compared with 51 million tones of food grain production in 1950-51, India achieved food grain production of 211.17 million tones during 2001-02, making it not only self sufficient in food production but also in a buffer stock of over 30 million tones (Venkataramani, 2003). This achievement was because of high intensity cropping and cultivation of high yielding varieties that were highly input responsive. Farmers used chemicals and synthetic pesticides, fertilizers and growth promoters above the level of recommended dose with a motive to get higher yields. In this process the soil, water and environment got polluted besides degradation of natural resources (Shivaraj, 2001). Paddy is the principal food crop and ranks second in the consumption of pesticides in Tamil Nadu. In order to protect our environment, the state department of agriculture had started advocating eco-friendly agricultural practices in paddy cultivation. In addition to the government efforts, number of non-governmental organizations (NGO's) are also taking intensive efforts to make the farmers to adopt eco friendly agricultural practices.

Among the several NGO's in Tamil Nadu, Agricultural Man Ecology (AME) is a Netherland based NGO fund to have taken strenuous efforts to advocate and popularize eco-friendly agricultural practices. It has network with other NGO's situated all over Tamil Nadu and rendered technical and financial support to them for the promotion of eco-friendly agricultural practices.

Keeping this in view, a study was conducted to know the suggestions to increase the use efficiency of eco-friendly agricultural practices among the paddy farmers who have trained by the AME network NGO's and untrained paddy farmers.

METHODOLOGY

Pudukottai district in Tamil Nadu state was selected purposively since more number of AME network NGOs were placed and involved in the promotion of eco-friendly agricultural practices. Among the NGOs, two NGOs namely Biosphere and Manushi were selected randomly. A total of 180 trained paddy farmers were selected randomly and constituted the respondents. A well-structured interview schedule was used to collect the data. The suggestions offered by the paddy farmers were analyzed using percentage analysis.

Key words :

Eco-friendly agricultural practices, Sustainable agriculture, Paddy farmers, Suggestions

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RESULTS AND DISCUSSION

Majority of the paddy farmers in the study area had education upto Middle school level and had agriculture as their main occupation. They had marginal land holdings with medium level of area under paddy cultivation and annual income. They had membership in AMEF net work NGOs. They had medium level of information source utilization and had high level of perception on organic manures. Above all they had more favourable attitude towards eco-friendly agricultural practices.

The suggestions that were expressed by the trained paddy farmers were grouped and the percentage analysis was worked out. The items were ranked according to the importance. The results are furnished in Table 1.

Provision of credit facilities was suggested by 93.89 per cent of the paddy farmers and ranked first. This might be due to lack of institutions like co-operative societies, bank, etc., in the study area. This could be considered while evolving the government policy. This study is in line with the findings of Sunitha (1998).

Secondly, provision of subsidy for inputs was expressed by majority of the paddy farmers (89.44 per cent). Inputs such as, seeds, bio-fertilizers, bio-pesticides, farm implements etc., are distributed at subsidized rates mostly for small and marginal farmers. Some of the respondents expressed that the subsidy amount given by the state and central governments was very low compared to the actual sale price of various inputs recommended. So, provision of subsidy for inputs is essential for them.

Adequate training programmes and demonstrations were suggested by majority of the respondents (87.22 per cent) regarding the eco-friendly cultivation of paddy. This finding is in conformity with the observations made by Anusuya (1997). Most of the respondents did not know the actual potentiality and utility of the programmes. So, it is suggested to give adequate training on nursery practices, fertilizer application and plant protection

practices etc. This may increase their knowledge and skill on latest technologies/ practices and this will make them to go for adoption.

Majority of the paddy farmers (86.11 per cent) expressed that timely and adequate supply of inputs are the most important factors in contributing eco-friendly agriculture. Hence, the farmers suggested that government and development organizations should supply the required inputs in time.

More than four-fifth of the paddy farmers (83.89 per cent) suggested that they need guidance and regulated market for marketing their produce. Marketing is the most important place for selling their eco-friendly produce with reasonable price. Hence, the information such as scope of selling their quality produces, marketing trends; marketing channel and price are needed by the farmers. In addition to that, regulated markets for the direct procurement is an essential for the farmers to sell their quality produces.

Creation of awareness about bio-pesticides and bio-agents through campaign is necessary for the control of pests and diseases particularly in paddy cultivation. Thus, majority of the respondents (79.44 per cent) suggested it.

Making more publicity through radio, television and newspaper, harmful effects of pesticides and chemicals in soil and environment and creation of awareness on the use of eco-friendly agricultural practices is one of the suggestions offered by 75.00 per cent of the total respondents. This finding is in line with that of Snehalatha (1991). This type of publicity is needed to motivate the farmers to take part in eco-friendly agricultural programmes and make to do eco-friendly agriculture.

Formation of eco-clubs was suggested by majority of the respondents (71.67 per cent). They felt that eco-clubs would be useful to get information about eco-friendly agriculture and their sustained effect in the soil and environment.

Table 1 : Suggestions expressed by the trained paddy farmers

(n=180)

Sr. No.	Suggestions	Number	Per cent	Rank
1.	Provision of credit facilities	169	93.89	I
2.	Introduction of more eco-friendly agricultural practices	122	67.78	IX
3.	Subsidy for Eco-friendly agricultural inputs	161	89.44	II
4.	Trainings and demonstrations on eco-friendly agricultural practices	157	87.22	III
5.	Timely and adequate input supply	155	86.11	IV
6.	Proper guidance and market for procurement of eco-friendly paddy grains	151	83.89	V
7.	Creating awareness about bio-pesticides and bio-control agents	143	79.44	VI
8.	More technical guidance	115	63.89	X
9.	More information on radio, television and newspaper	135	75.00	VII
10.	Formation of eco-clubs	129	71.67	VIII
11.	Creation of awareness about supply of input and services offered by government	108	60.00	XI

To substitute chemical fertilizers and pesticides more number of eco-friendly agricultural practices for the sustained yield is essential. Hence, majority of the respondents (67.78 per cent) suggested introduction of more eco-friendly agricultural practices.

Technical guidance on eco-friendly agricultural practices was one of the suggestions expressed by 63.89 per cent of the respondents. Because of the medium level of education, majority of the respondents expressed their difficulty in understanding the eco-friendly practices like bio-agents and also to clarify their doubts, they need more technical guidance.

Creation of awareness about the input supply offered by state and central government was one of the suggestions expressed by 60.00 per cent of the respondents. They reported that the personnel of the state department of agriculture were not taking adequate efforts to create awareness among various sections of respondents regarding the benefits given by the government to boost agricultural production at farm level.

Conclusion:

Provision of credit facilities, subsidy for inputs, adequate training programmes and demonstrations, timely and adequate quantity of inputs such as seeds, bio fertilizers, bio-pesticides, farm implements etc. and regulated market for marketing the eco-friendly produce were the most important suggestions to follow eco-friendly agricultural practices by majority of the farmers. Since paddy ranks second in the consumption of pesticides, creation of awareness about bio-pesticides and bio-control agents through campaigns, more publicity through radio, television and news paper, formation of eco-clubs were also suggested by the paddy farmers for the increased use efficiency of eco-friendly practices among paddy farmers for sustainable agriculture.

Since the farmers in the study area have been practicing eco-friendly practices for the past three to four years only by the effort of NGOs through farmers field school, self help group, V V V club etc., so that the adoption of eco-friendly practices were medium in level. But, in future the yield will be sustained if eco-friendly practices followed continuously and also by the involvement and efforts of government, private and NGOs.

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