



Research Article

BARRIERS PERCEIVED BY TRIBAL FARMERS OF BAIHAR BLOCK OF BALAGHAT DISTRICT (M.P.) IN USING ECO-FRIENDLY FARMING PRACTICES IN PADDY CROP AND SUGGESTED MEASURES TO OVERCOME THEM

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Received: November 02, 2016; Revised: November 23, 2016; Accepted: November 24, 2016; Published: November 30, 2016

Abstract- The research study was conducted in Baihar block of Balaghat district, Madhya Pradesh with the aim of ascertaining the barriers perceived by tribal farmers in utilizing eco-friendly farming practices of paddy crop and the suggestions to recover them. A total of 120 respondents from 10 tribal villages of Baihar block were selected through proportionate random sampling method and frequency, percentage and rank order were the basis of data analysis. The conclusions drawn were the lack of training facilities (93.33%), lack of technical knowledge for using light trap and pheromone trap (91.67%) and lack of demonstrations of different eco-friendly farming practices (89.17%) as the major barriers perceived in utilization of eco-friendly paddy farming practices by the tribal farmers. Among the major suggestions, providing trainings to the farmers on different eco-friendly farming practices eg. SRI Technique, Use of bio-fertilizers etc. (90.00%), provision of proper soil testing facility to farmers for balance nutrient supply (87.50%), and frequent contact of field level extension workers with farmers for creating a positive perception and improving utilization regarding these practices (85.00%) headed the study.

Keywords- Barriers, Eco-friendly farming practices, Suggestions.

Citation: Markam Neha, et al., (2016) Barriers Perceived by Tribal Farmers of Baihar Block of Balaghat District (M.P.) in Using Eco-Friendly Farming Practices in Paddy Crop and Suggested Measures to Overcome Them. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, Volume 8, Issue 58, pp.-3245-3246.

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Academic Editor / Reviewer: Aparna Jaiswal

Introduction

Eco-friendly farming is a comprehensive approach describing the way of farming which supports both agricultural production and biodiversity conservation working in harmony together to improve the livelihood of rural communities. Eco-friendly farming combines agricultural approaches like Integrated Pest Management, Integrated Nutrient Management, Integrated Weed Management, Soil, Water and Residue Management practices. These approaches advocated for use of resistant crop varieties, balanced nutrient supply, use of cow dung, cow urine, use of vermin-compost, use of parasites & predators, use of traps, neem oil and extract, crop rotation, mulching, use of biodegradable pesticides etc. Tribals are generally recognized as a natural community who joints with nature through their cultures, rituals, farming etc. There are 46 recognised schedule tribes in Madhya Pradesh. The population of ST is 21.1 per cent of state population [1]. Keeping all this in view present study is undertake to ascertain the barriers perceived by tribal farmers in utilizing eco-friendly paddy farming practices and suggestions reported by them. Paddy is world's second most important crop and it contributes an important part in national economy of India. Around 65 per cent of total Indian population eats rice [2]. So the practices adopted for paddy crop production produces a greater impact in our nature and lives. Paddy is one of the major crop of Madhya Pradesh with area, production, and productivity of 1882.6 thousand ha, 2775 thousand tones and 1474 kg/ha respectively (International Plant Nutrition Institute 2013-14). Area of paddy in Baihar block is 20,043 ha and production is 8017.20 tonns in year 2015-16 [3].

Materials and Methods

The present study was conducted in Baihar block, Balaghat district of Madhya Pradesh purposively highest tribal population than other blocks of Balaghat

district. Out of 330 villages of the block, 10 villages namely Amgaon, Bhari, Birwa, Kohka, Mohbatta, Pipariya, Katangi, Singbagh, Newargaon and Mowala were selected. Through the use of proportionate random sampling (proportion of 22.8 of total population) a fixed proportion of respondents were selected from each village to make the total sample size of 120 respondents. The data were collected through well structured pre tested interview schedule and analyzed through frequency, percentage and rank order.

Results

The facts and findings derived after analyzing the information have been presented under the following heads:

Table-1 Distribution of farmers according to barriers perceived by them in using eco-friendly farming practices of paddy. (n = 120)

Barriers	(n)Frequency	Percentage	Rank
Technical barriers			
Lack of training facilities in relation to different eco-friendly farming practices of paddy	112	93.33	I
Lack of technical knowledge for using light trap and pheromone trap for pest control in paddy crop	110	91.67	II
Unavailability of improved agricultural implements and other inputs at proper time	82	68.33	IV
Inadequate information regarding improved seeds of disease and pest resistant varieties of paddy	76	63.33	V

Lack of demonstrations of different practices of eco-friendly farming	107	89.17	III
Average percentage = 81.17			
Economic barriers			
Small size of holding	37	30.83	IV
Lack of funds for adopting latest eco-friendly technologies	49	40.83	II
Unavailability of subsidy for improved implements and technologies	45	37.50	III
Eco-friendly technology consume more time for providing benefits	57	47.50	I
Average percentage = 39.17			
Individual barriers			
Lack of risk bearing ability	68	56.67	II
Lower level of education	41	34.17	IV
Lack of savings	52	43.33	III
Lack of proper linkage with extension functionaries	96	80.00	I
Average percentage = 53.54			

Table-2 Distribution of farmers according to suggestions reported by them for improving the adoption and utilization of eco-friendly farming practices of paddy. (N=120)

Suggestions	Frequency (N)	Percentage	Rank
Training should be provided to the farmers on different practices of eco-friendly farming (SRI Technique, Use of bio-fertilizer etc.)	108	90.00	I
Low cost and consumer friendly technology should be demonstrated in locality may be in farmers field	98	81.67	IV
Agricultural implements should be made available to the farmers on subsidized rate	78	65.00	V
Field level extension worker should make frequent contact with farmers for creating a positive perception and improving utilization regarding these practices	102	85.00	III
Proper soil testing facility should be provided to farmers to balance the nutrient supply	105	87.50	II

Discussion

The barriers perceived by the farmers in utilizing eco-friendly paddy farming practices are presented above [Table-1]. The problems are categorized into three categories, technical barriers, economic barriers and individual barriers. Among these barriers, majority of the farmers (81.17%) recognized technical problems as the major barrier in adoption of eco-friendly paddy farming practices. Under technical problems maximum percentage of farmers (93.33%) perceived lack of training facilities as a major problem, followed by lack of technical knowledge for using light trap and pheromone trap (91.67%), lack of demonstrations (89.17%), unavailability of improved agricultural implements and other inputs at proper time (68.33%), and inadequate information regarding improved seeds of disease and pest resistant varieties of paddy (63.33%) [4]. Economic problems include time consuming nature of eco-friendly farming (47.50%), lack of funds for adoption (40.83%), unavailability of subsidy for improved implements and technologies (37.50%) and small size of holding (30.83%) [5-6]. Individual barriers encircles lack of proper linkage with extension functionaries (80.00%), lack of risk bearing ability (56.67%), lack of savings (43.33%) and lower level of education (34.17%) to be the major problems [7].

Different suggestions reported from the tribal farmers are presented as [Table-2] Maximum percentage of farmers (90.00%) suggested that training should be provided to the farmers on different eco-friendly farming practices, soil testing facility should be provided for balance nutrient supply (87.50%), Field level extension workers should make frequent contact with farmers (85.00%), low cost and consumer friendly technology should be demonstrated in farmers field (81.67%) and agricultural implements should be made available to the farmers on subsidized rate (65.00%) [5, 8-10].

Conclusions

The problems and suggestions identified through the study depicts a clear picture of the needs and the problems of the tribal farmers. The results of the study emphasized the need for taking an initiative step to resolve their problems. The suggestions of the tribal farmers are helpful in providing a framework for conducting any future plan or program in that area. Lack of training facility regarding eco-friendly farming and lack of technical knowledge for using light trap and pheromone trap are perceived as major barriers in the way of adoption of eco-friendly paddy farming practices, so it is recommended to provide them these facilities as well as recognize their suggestions to stimulate the rate of adoption of eco-friendly farming practices and creation of positive perception of farmers towards these practices.

Conflict of Interest: None declared

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