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Research Article

Constraints and Opportunity for Organic Paddy Production in Jabalpur District Of Madhya Pradesh

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ABSTRACT

An attempt has been made in this study to examine the socio-economic and production hindering constraints organic farming practices for paddy cultivation in Jabalpur district of M.P. A sample of 100 farmers from both organic and inorganic paddy system comprised of small, medium and large size group were selected randomly from five organic villages namely umaria chobey, kasahi, kundrakheda, liti and urdwakhurd of panager block of Jabalpur district. The required data primary were collected by survey method by personal interview of the responds opinion survey, ranking, average and percentage techniques were used to canalized the collected data. The maximum number of organic paddy growers reported that they have hindrances in the cultivation of crop due to relative low level of production (92%), lack of knowledge of recommended package of practices (72%), lack of capital (76%) and unavailability of input materials in the time of cultivation (56%) of the total sample respondents, the lack of improved seed (70%), high price of seed (72%) and knowledge about seed variety, seed rate, respectively. Owing to constraints regarding use of manure and bio-fertilizer that about 83 per cent of sample respondents. reported having unavailability of desired manure and bio-fertilizer as regards. The plant protection measure constraints that 84 per cent of incidents towards use of chemical pesticides, 68 per cent of unavailability of bio-pesticides, respectively were reported by sample farmers. The major marketing constraints reported were lack of agencies for purchase of organic products (94%), non-remunerative prices (70%), respectively. It was also observed that other major constraints that the unavailability of government facilities (60%), lack of proper guidance (72%), irregular visit of agriculture officers and lack of testing facilities (72%) of the total all size farms, respectively. Sincere efforts be made by the extension personnel to motivate the farmers to adopt improved production technology to minimize the yield gap and solution of constraints be provided in time to farmers.

INTRODUCTION

Organic farming is one of the widely used methods, which is thought of as the best alternative to avoid the ill effects of chemical farming. It is a system that is designed and maintained to produce agricultural products by the use of methods and substances that maintain the integrity of organic agricultural products until they reach the consumer.(Narayanan, S. (2005))This is accomplished by using substances, to fulfill any specific fluctuation within the system so as to maintain long term soil biological activity, ensure effective peak management, recycle wastes to return nutrients to the land, provide attentive care for farm animals and handle the agricultural products without the use of extraneous synthetic additives or processing in accordance with the act and the regulations in this part. The occurrence of multinutrient deficiencies and overall decline in the productive capacity of the soil due to nonjudicious fertilizer use, gave birth to new concepts in farming, such as back to nature organic farming (Narayanan S, 2005), the present study was undertaken to assess the production constraints for organic farming in Panagar block of Jabalpur district, Madhya Pradesh.

MATERIALS AND METHODS

The study was confined to Panagar block of Jabalpur district, Madhya Pradesh. Five identified organic villages namely, Umaria Choubey, Kasahi, Kundra Kheda, Liti and Urdwakhurd were selected randomly from the selected block. From the selected villages, the list of organic farmers growing paddy was prepared with the help of RAEO. The list of farmers was further categorized into three size groups according to their size of land holding viz., small (up to 2 ha), medium (2.01 to 5 ha) and large (above 5 ha). Fifty farmers were selected from each category of organic and inorganic groups. Thus, the study covered total 100 farmers growing both organic and inorganic paddy in the selected area. The data required were collected through survey method in the agricultural year 2008-09. For exploring major constraints of organic farming. Farmer's opinion, ranking, average and percentage

statistical techniques were used to analyze the collected data.

RESULTS AND DISCUSSION

The organic farming constraints in cultivation of paddy at different size of farms are classified into three major heads.

1. Production constraints.
2. Manure, biofertilizer and plant protection measure constraints, and
3. Marketing and other major constraints

Table 1: Production constraints of organic farming in paddy cultivation

S. No.	Constraints and reason	Small (32)	Medium (10)	Large (8)	Total (50)
1.	Predominance of the inorganic farmers in the locality.	26 (72)	10 (100)	7 (88)	43 (86)
2.	Organic farming is a slow process	23 (72)	9 (90)	7 (88)	39 (78)
3.	Lack of production	29 (91)	9 (90)	8 (100)	46 (92)
4.	Lack of capital	26 (81)	8 (80)	4 (50)	38 (76)
5.	Lack of knowledge of recommended package of practices	22 (69)	8 (80)	6 (75)	36 (72)
6.	Unavailability of input materials in the time of cultivation	16 (50)	7 (70)	5 (63)	28 (56)
7.	Seed and sowing				
	a) Lack of improved seed	21 (66)	8 80)	6 (75)	35 (70)
	b) Costly in nature	25 (98)	6 (60)	5 (63)	36 (72)
	c) Knowledge about seed variety, seed rate, seed treatment & right time of sowing	19 (59)	7 (70)	5 (63)	31 (62)
8.	Irrigation				
	a) Need of more irrigation	25 (78)	6 (60)	4 (50)	35 (70)
	b) Costly and irregular supply of electricity	22 (69)	7 (70)	6 (75)	35 (70)
	c) Timely monsoon water is not available / water supply not available when needed	21 (66)	6 (60)	5 (63)	32 (64)
9.	Problem about human labour				
	a) During inter-culture operations	14 (44)	5 (50)	6 (75)	25 (50)
	b) During sowing time	15 (47)	6 (60)	7 (88)	28 (56)
	c) During plant protection measures	12 (38)	7 (70)	7 (88)	26 (62)
	d) During picking and harvesting time	19 (59)	9 (90)	8 (100)	36 (72)
	e) Shortage and high price of labour	17 (53)	9 (90)	3 (38)	29 (58)

(Parentheses shows the percentage of the total respondents of each category)

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Production constraints

The data related to these are presented in the table 1. The maximum number of organic paddy growers reported that they have hindrances in the cultivation of crop due to lack of production (92%), while 86% of the majority of the inorganic farmers reported that organic farming is a slow process (78%), lack of knowledge of recommended package of practices (72%), lack of capital (76%) and unavailability of input materials at the time of cultivation (56%) of the total sample respondents, respectively.

Regarding the information about seed and sowing, the lack of improved seed (70%), high price of seed (72%) and knowledge about seed variety, seed rate, seed treatment and right time of sowing (62%) of the total sample farmers, respectively.

The human labour is also one of the important factors which is used in all the operations during cultivation. The shortage and high wages of human labour was also observed particularly during sowing and harvesting operations.

The sample respondents were also reported the constraints in irrigation facilities. It was costly and irregular supply of electricity (70%), need of more irrigation (70%) and water supply and non-availability when needed (64%), respectively.

Manures, bio-fertilizers and plant protection measures constraints

The manure, bio-fertilizer and plant protection constraints of sample respondents under different size group towards organic paddy cultivation are presented in table 2.

Table 2: Manures, bio-fertilizers and plant protection constraints

S. No.	Constraints and reason	Small	Medium	Large	Total
1.	**Manures and Bio-fertilizers**				
a)	Unavailability of desired manures & bio-fertilizers and difficult method of its preparation	29 (91)	8 (80)	7 (88)	44 (88)
b)	Costly manures and bio-fertilizers	20 (63)	7 (70)	6 (75)	33 (66)
c)	Non use of by-product (many crops)	14 (44)	6 (60)	6 (75)	26 (52)
d)	Slow process of organic manure preparation	22 (69)	8 (80)	7 (88)	37 (74)
e)	Knowledge about type and recommended doses	19 (59)	5 (50)	3 (38)	27 (54)
f)	Supply agencies at long distance	26 (81)	8 (80)	6 (75)	40 (80)
2.	**Plant protection constraints**				
a)	Inclination towards use of chemical pesticides	26 (81)	9 (90)	7 (88)	42 (84)
b)	Difficult method for preparation of bio-insecticides	23 (72)	8 (80)	6 (75)	37 (74)
c)	Unavailability of bio-pesticides	25 (78)	6 (60)	3 (38)	34 (68)
d)	Lack of supply centre	22 (69)	7 (70)	4 (50)	33 (66)
e)	Knowledge about type, apply time, method and proper dose	19 (59)	5 (50)	4 (50)	28 (56)
f)	Lack of skilled labour	15 (47)	4 (40)	5 (63)	24 (48)
g)	Not use are physical equipment and resistant varieties	22 (69)	4 (40)	3 (38)	29 (58)
	Number of total sample respondents	32 (100)	10 (100)	8 (100)	50 (100)

Parentheses show the percentage of the total respondents of each category

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Owing to constraints regarding use of manure and bio-fertilizer, it revealed that about 83 per cent of sample respondents reported having unavailability of desired manure and bio-fertilizer, 74 per cent slow process of organic manure preparation, 80 per cent of supply agencies at long distance, 66 per cent costly in nature, 52 per cent un-utilization of by-product (many crops) and 54 per cent knowledge about types and recommended doses, of the total sample respondents, respectively.

Marketing and other major constraints

The different marketing and other constraints of organic paddy cultivation are identified during the course of investigation and presented in table 3.

Table 3: Marketing and other major constraints

S. No.	Constraints and reason	Small (32)	Medium (10)	Large (8)	Total (50)
1.	**Marketing constraints :**				
a)	Lack of agencies to purchase organic products	31 (97)	9 (90)	7 (88)	47 (94)
b)	Dependence on middleman for disposal	26 (81)	7 (70)	6 (63)	39 (78)
c)	Purchase agencies at long distance	27 (84)	7 (70)	6 (63)	40 (80)
d)	More transportation charges	19 (59)	6 (60)	4 (50)	29 (58)
e)	Lack of marketing news	25 (78)	7 (70)	5 (63)	37 (74)
f)	Lack of storage facilities	24 (75)	5 (50)	3 (38)	32 (64)
g)	Price is not remunerative	23 (72)	7 (70)	5 (63)	35 (70)
2.	**Other constraints :**				
a)	Lack of proper guidance and training	21 (66)	9 (90)	6 (75)	36 (72)
b)	Irregular visit of agriculture officers	26 (81)	6 (60)	4 (50)	36 (72)
c)	Unavailability of government facilities	29 (91)	8 (80)	6 (75)	43 (86)
d)	Unavailability of loan facilities	22 (69)	5 (50)	3 (38)	30 (60)
e)	Lack of risk ability	20 (63)	7 (70)	5 (63)	32 (64)
f)	Lack of testing facilities (soil, products etc.)	17 (53)	7 (70)	6 (75)	30 (60)
	Number of total sample respondents	32 (100)	10 (100)	8 (100)	50 (100)

(Parentheses shows the percentage of the total respondents of each category)

The major marketing constraints noted from the respondents were lack of agencies for purchase of organic products (94%), followed by purchase agencies at long distance (80%), dependence of middlemen for disposal and lack of marketing news together (78%), non-remunerative prices (70%), high transportation charges (58%) and lack of storage facilities (64%) of total sample respondents, respectively.

It was also observed other major constraints that the unavailability of government facilities (60%), lack of proper guidance (72%), irregular visit of agriculture officers and lack of testing facilities (72%), lack of risk in organic production (64%) and non-availability of loan facilities (60%) of the total all size farms, respectively.

Suggestions: On the basis of the finding of study, following suggestions to popularize organic farming are made for the study area. The wide gap between productivity level of organic farming and attainable yield was observed in the study area decrease by augmenting the productivity level of organic farming. Sincere efforts be made by the extension personnel to motivate the farmers to adopt improved production technology to minimize the yield gap. Krishi Vigyan Kendra should identify the problems of the farmers and feed back and solution of constraints be provided in time to the farmers. Manure and bio-fertilizer and other inputs must be made available through societies and other distribution centres at village level and it should ensure for supply of quality inputs to the farmers to enhance productivity level. Government officers and other network should be established in each village to produce organic products from farmers. Government should also announce separate support price to the organic product.

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