

CONSTRAINTS PERCEIVED BY THE DEMONSTRATING FARMERS IN ADOPTION OF WEEDICIDES

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INTRODUCTION

The weeds are plants not grown in the fields by the farmers. Such plants are undesirable; as they not only compete with crop plants but also interfere with agricultural operations; increase the cost of labour and tillage and ultimately affect the yield and quality of the produce adversely.

Though paddy is one of the important cereal crops in Konkan region, the per hectare yield is low. A wide variety of factors contribute to the low yields. Weed infestation in paddy is one of the important factors. It is estimated that weeds can reduce 45 to 50 per cent of yield. Weed control in paddy is normally done by labours and is considered as tedious, time consuming and expensive practice. It was, therefore, thought necessary to generate data on these aspects under Konkan conditions with special reference to paddy. Keeping this in view, the present study was conducted with the following specific objectives:

1. To study the constraints perceived by the demonstrating farmers in adoption of weedicides.
2. To study the relationship between characteristics of the demonstrating farmers and constraints perceived by them in adoption of weed control measures.

METHODOLOGY

The Development Block of College of Agriculture, Dapoli encompasses four tahsils

namely, Dapoli, Madangadh, Chiplun and Khed. Result demonstration on weedicides were conducted in two tahsils namely, Dapoli and Mandangad; hence these two tahsils were selected for the study.

Five villages from demonstration area and ten paddy growers from each village were selected at random. Thus, a sample of 100 paddy growers from demonstration area was drawn for the study.

Constraints perceived by the farmers in adoption of weedicides were recorded in a schedule constructed for the purpose. The respondents were asked to indicate whether they are facing a particular constraint or not. Further; those respondents responding positively to the question were asked for the severity of each constraint i.e. whether it was 'more severe', 'severe', or 'less severe'. The weightage given to these responses were 3, 2 & 1 respectively. Sum total of score for all the constraints was made to arrive at overall score.

RESULTS AND DISCUSSION

Constraints perceived by the demonstrating farmers in adoption of weedicides:

The response about the constraints was obtained on three point continuum. The computed score of responses for each of the constraints are showed in Table 1.

The findings presented in Table 1 made it clear that 'high cost of weedicides' (291),

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'uneconomical due to small and fragmented land holding' (205), 'lack of skilled labour' (178) and 'lack of expertise for repair of spray pump' (176) were the major constraints perceived by the respondents.

'Un-availability of weedicides at proper time' (170), 'non-availability of spare parts of appliances' (166) and 'uncertainty of rains' (146) were the other important constraints reported by the demonstrating farmers.

The findings were in confirmation with the findings of Lakshminarayan, et. al. (2000) and Phatke, V. S. et. al. (1992).

Relationship between characteristics of the demonstration farmers and constraints in adoption of weedicides:

The findings in this regard are presented in the Table 2.

It is seen from Table 2 that, the selected personal and psychological variable namely, education (X_2), annual income (X_4), occupation (X_5), extension contact (X_8), social participation (X_9), scientific orientation (X_{10}), risk orientation (X_{11}) had statistically non-significant relationship with constraints in adoption of weedicides. It means, the constraint was not dependent on these selected characteristics of respondents.

On the contrary, the characteristics namely

age (X_1), land holding (X_3), area under rice (X_6) and farming experience (X_7) were significantly related with constraints in adoption of weedicides at 0.01 level of probability.

This findings are some what similar with the findings of Sable (1990).

CONCLUSION

1. The constraints analysis revealed that the major constraints experienced by the demonstrating farmers were high cost of weedicides and uneconomical due to small and fragmented land holding. The agencies involved in the production of herbicides may think of reducing the production cost of weedicides which would result in lower down the market prices of weedicides. The second constraint suggest that the weedicides shall be made available in packs of small quantity, as per as the crop and the region is concerned. This would help reduce the cost of weedicides.

2. Researchers may think of developing advanced equipments for application of weedicides rather than totally depending on the common sprayers. Developing of spots applicators and the like would results in reducing down the cost of weed control on the part on end users.

Table 1 : Constraints perceived by the demonstrative farmers in adoption of weedicides

Sr..no.	Constraints	Severity score	Rank
1.	High cost of weedicides	291	I
2.	Uneconomical due to small and fragmented land holding	205	11
3.	Lack of skilled labourers for spraying	178	III
4.	Lack of expertise for repair of spray pump	176	IV
5.	Un-availability of weedicide at proper time	170	V
6.	Non - availability of spare parts of weedicides appliances	166	VI
7.	Uncertainty of rains	146	VII
8.	Non-availability of weedicides appliances	133	VIII
9.	Lack of detail knowledge about weedicides	124	IX
10.	Difficulty in spraying weedicides in standing crop	119	X
11	Difficulty in preparing required concentration of weedicides	111	XI

Table 2: Correlation of independent variables with constraints in adoption of weedicides

Sl.No.	Characteristics	Correlation coefficient(r)
1.	Age (X ₁)	+ 0.291* *
2.	Education (X ₂)	- 0.157
3.	Annual income (X ₃)	- 0.11
4.	Occupation (X ₄)	+ 0.018
5.	Land holding (X ₅)	+ 0.373* *
6.	Area under rice (X ₆)	+ 0.351**
7.	Farming Experience (X ₇)	+ 0.501* *
8.	Extension contact (X ₈)	+ 0.065
9.	Social participation (X ₉)	+ 0.036
10.	Scientific orientation (X ₁₀)	+ 0.099
11.	Risk orientation (X ₁₁)	-0.016

3. The relationship between the personal and psychological variables of the respondents and severity of constraints revealed that the age, land holding, area under rice crop, experience in farming was highly significant. The extension agencies may think of these attributes while organizing different extension activities related to use of weedicides.

4. Suggesting proper cropping system considering the area under the resources available would also help to overcome the barriers of weed control.

5. The study was conducted with limited sample and the area. It would be appropriate to conduct similar studies on larger areas to generalize the findings of the present study.

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