

**RESEARCH ARTICLE :**

Constraints experienced and suggestions offered by farmers in adoption of recommended paddy production technology

■ H.N. MAHERIYA, J.K. PATEL AND R.C. PATEL**ARTICLE CHRONICLE :****Received :**

01.07.2015;

Revised :

23.07.2015;

Accepted :

21.08.2015

SUMMARY : Present study was conducted in Anand district of Gujarat state to identify the constraints by the farmers in adoption of paddy production technology. Results indicates that, lack of knowledge in the practices namely recommended dose of fertilizers, control measures of pests and diseases, identification of pests and diseases, recommendation of chemical weed control measures in paddy, high cost of fertilizers and pesticides, high labour charges at the time of transplanting and harvesting, labour shortage at the time of transplanting and harvesting and short supply of fertilizers at required time, low market price of paddy and poor contacts of extension workers with farmers were major constraints faced by paddy grower. Remunerative market prices of paddy, facility of crop insurance scheme in case of failure of season, minimum support price of paddy should be declared well in advance were important suggestion to overcome/minimize the constraints in adoption of new technology in paddy cultivation.

KEY WORDS:

Constraints, Paddy production technology, Suggestions

How to cite this article : Maheriya, H.N., Patel, J.K. and Patel, R.C. (2015). Constraints experienced and suggestions offered by farmers in adoption of recommended paddy production technology. *Agric. Update*, 10(3): 255-258.

BACKGROUND AND OBJECTIVES

Rice (*Oryza sativa* L.) is one of the most important cereal crops of the country. In Gujarat most of the area under rice crop is confined to middle and south Gujarat comprising the districts of Kheda, Anand, Vadodara, Dahod, Godhra, Ahmadabad, Surat, Valsad, Dang and Navsari. Paddy is one of the important commercial crops of Anand district having with total area of 87700 hectares with total production of 1.85 million tones (Anonymous, 2011). Khambhat and

Tarapur are major rice growing taluka of the district. Majority of the farmers in the area has undertaken the cultivation of paddy since a very long time. However, it is observed that recommended paddy production technology is not adopted by the farmers upto the extent for higher production due to some technological, economical and marketing constraints. Therefore, study was conducted to identify the constraints faced by the farmers in adoption of recommended paddy production technology and to seek their suggestions to

Author for correspondence :

H.N. MAHERIYA

Department of
Extension Education,
B.A. College of
Agriculture, Anand
Agricultural University,
ANAND (GUJARAT) INDIA
Email: hiten2889@gmail.com

See end of the article for
authors' affiliations

over- come these constraints.

RESOURCES AND METHODS

Anand district was purposively selected for the study. Khambhat and Tarapur taluka of Anand district were purposively selected as coverage of maximum area under paddy cultivation in the district. A sample of 120 respondents was selected from 10 randomly selected villages of Khambhat and Tarapur taluka. An interview schedule based on objective of the study was developed and respondents were personally interviewed for collection of information. The respondents were asked to mention the constraints faced by them in adoption of paddy production technology. The constraints expressed by them were noted and were categorized in five groups namely; technological constraints, economical constraints, service and supply constraints, marketing constraints and communication constraints. Based on the frequencies and intensity each particular constraint was converted in percentage. At the same time suggestions of the farmers were also collected to minimize the constraints. Frequency and percentage were used to analyze the data to draw the meaningful conclusion.

OBSERVATIONS AND ANALYSIS

Constraints in adoption of any new technology never end. However, it can be minimized in somewhat extent. The respondents were asked to state the constraints which they faced in paddy cultivation. The constraints expressed by them were noted and categorized in five groups namely technological, economical, service and supply related marketing related constraints and communication constrains. Based on the frequencies each constraint was converted in percentage and presented in Table 1.

It is observed from Table 1 that, lack of knowledge about recommended dose of fertilizers (70.83 %), lack of knowledge about control measures of pests and diseases (62.50 %), lack of knowledge about identification of pest and diseases (58.33 %) and lack of knowledge about recommendation of chemical weed control measures (56.66 %), were their major technological constraints. High cost of fertilizers and pesticides (70.83 %), high labour charges at the time of transplanting and harvesting (66.66 %), lack of finance for purchasing farm inputs (62.50 %), were major economic problems.

Table 1 : Constraints of respondents in technology utilization of paddy cultivation

Sr. No.	Constraints	Frequency	Per cent
Technological constraints			
1.	Lack of knowledge about recommended dose of fertilizers.	85	70.83
2.	Lack of knowledge about control measures of pests and diseases.	75	62.50
3.	Lack of knowledge about identification of pests and diseases.	70	58.33
4.	Lack of knowledge about recommendation of chemical weed control measures in paddy.	68	56.66
Economical constraints			
1.	High cost of fertilizers and pesticides	85	70.83
2.	High cost of labour charges at the time of transplanting and harvesting.	80	66.66
3.	Lack of finance for purchasing farm inputs.	75	62.50
Service and supply related constraints			
1.	Labour shortage at the time of transplanting and harvesting.	90	75.00
2.	Shortage of fertilizers at required time	80	66.66
3.	Irregular supply of canal irrigation water	65	54.16
Marketing constraints			
1.	Low market price of paddy at harvesting time	75	62.50
2.	Lack of marketing facilities in rural area	65	54.16
Communication constraints			
1.	Poor contacts of extension workers with farmers	70	58.33
2.	Non-availability of farm information in time	65	54.16
3.	Irregularity of extension workers in rural area.	60	50.00

Table 2 : Suggestions offered by paddy growers to overcome the constraints in technology utilization of paddy production technology

Sr. No.	Suggestions	Frequency	Per cent	Rank
1.	Remunerative market prices of paddy should be provided to the farmers	110	91.67	I
2.	Farmers should be protected by crop insurance scheme in case of failure of season	105	87.50	II
3.	Minimum support price of paddy should be declared well in advance by Government	100	83.33	III
4.	Extension system should be streamlined to disseminate farm technology.	88	73.33	IV
5.	Proper technical guidance should be given to the farmers as and when they needs.	82	68.33	V
6.	Training on new cultivation technology should be imparted to the farmer.	78	65.00	VI
7.	Farm information centers should be established at village level.	75	62.50	VII
8.	Farm consultancy services should be made available to the farmers at village level.	70	58.33	VIII
9.	Required farm inputs should be made available at village level.	68	56.66	IX
10.	Timely supply of canal water for irrigation	65	54.16	X
11.	Electricity should be supplied regularly	60	50.00	XI

Labour shortage at the time of transplanting and harvesting (75.00 %), sort supply of fertilizers at required time (66.66 %) and irregular supply of canal water for irrigation (54.16 %) were major constraints related to service and supply. Low market price of paddy (62.50 %) followed by, lack of marketing facility in rural area (54.16 %) were major marketing problems for paddy growers in study area. Poor contacts of extension workers with farmers (58.33 %), non-availability of farm information in time (54.16 %) and irregularity of extension workers in rural area (50.00 %) were major information transfer constraints for paddy growers. Similar studies were also conducted by several workers (Jana and Verma, 2003; Maheriya, 2013; Parmar, 2006; Prakash *et al.*, 2003 and Maheriya *et al.*, 2014).

Table 2 indicated that great majority of the farmers suggested that remunerative market prices of paddy should be provided to the farmers (91.67 %), farmers should be protected by crop insurance scheme in case of failure of season (87.50 %), minimum support price of paddy should be declared well in advance by the Government (83.33 %), extension system should be streamlined to disseminate farm technology (73.33 %), proper technical guidance should be given to the farmers as and when they needs (68.33 %), training on new cultivation technology should be imparted to the farmer (65.00 %), farm information centers should be established at village level (62.50 %), farm consultancy services should be made available to the farmers at village level (58.33 %), required farm inputs should be made available at village level (56.66 %), timely supply of canal water (54.16 %) and electricity should be supplied

regularly (50.00 %).

Conclusion :

It can be concluded that major constraints experienced by the farmers in paddy cultivation were lack of knowledge about recommended dose of fertilizers, high cost of fertilizers and pesticides, labour shortage at the time of transplanting and harvesting, low market price of paddy at harvesting time, poor contacts of extension workers with farmers. Remunerative market prices of paddy, facility of crop insurance scheme in case of failure of season, minimum support price of paddy should be declared well in advance, extension system should be streamlined, proper technical guidance and organization of training to the farmers were important suggestions to overcome/minimize the constraints in adoption of paddy production technology.

Authors' affiliations :

J.K. PATEL, Dairy Vigyan Kendra, M.C. College of Dairy Science, Anand Agricultural University, ANAND (GUJARAT) INDIA

R.C. PATEL, Department of Extension Education, B.A. College of Agriculture, Anand Agricultural University, ANAND (GUJARAT) INDIA

REFERENCES

- Anonymous (2011). Directorate of Agriculture Gujarat State, Krishi Bhavan Sector-10/A, Gandhinagar.
- Bhosale, U.S.** (2010). Participation of rural youth in paddy farming in Anand district of Gujarat state. M.Sc (Ag.) Thesis, Anand Agricultural University, Anand, GUJARAT (INDIA).
- Desale, M.M.** (2009). Extent of adoption of hybrid castor production technology by the farmers in Kheda district of Gujarat state. M.Sc. (Ag.) Thesis, Anand Agricultural University, Anand, GUJARAT (INDIA).

Jana, H. and Verma, H.K. (2003). Constraints faced by the paddy growers in adoption of recommended plant protection practices, Rural India, Aug-2003. p. 155.

Maheriya, H.N. (2013). Technology utilization behaviour of paddy growers in Anand district of Gujarat State. M.Sc. (Ag.) Thesis, Anand Agricultural University, Anand, GUJARAT (INDIA).

Maheriya, H.N., Patel, R.C. and Patel, J.B. (2014). Constraints faced by farmers in adoption of recommended paddy

production Technology. *Gujarat J. Extn. Edu.*, **25**(1) : 93-95.

Parmar, P.B. (2006). A study on knowledge and extent of adoption of paddy growers about recommended paddy production technology in Khambhat taluka of Anand district. M.Sc. (Ag) Thesis, Anand Agricultural University, Anand, GUJARAT (INDIA).

Prakash, Vinod, Singh, Harish Chandra and Prajapati, M.K. (2003). Extent of adoption of rice growers regarding rice production technology. *Rajasthan J. Extn. Edu.*, **11** : 55-58.

10th
Year
★★★★★ of Excellence ★★★★★