

Water management technologies for *Rabi* crops: Adoption pattern and constraints

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ABSTRACT

Irrigation is prime requirement for crop production. Presently farmers are facing water scarcity problems in the country side. In case of scarce water supply, water management technologies developed by the research institutes proved to be very effective in efficient utilization of available water resources. Present study was undertaken to assess the suitability of water Management technologies and problems faced by the cultivators in using them in their field conditions (Khajuria and Sharma, 2003). Under the study a sample of 50 farmers was taken from two blocks of Sriganaganagar district namely Sadulshahar and Ganaganagar. The study revealed that 48 per cent of the respondents have medium level of adoption of W M Practices followed by low level (38 per cent). Only 14 per cent farmers belong to high category under the study adopted water management techniques. Under the study, crop wise extent of adoption revealed that in wheat crop, majority of the farmers followed the W M Practices. However, farmers reported that irrigating crop at critical stages was not possible. This may be due to the supply of water in canal may not coincide with critical stages of the crop. Further, the study found that farmers were not using sprinkler method in irrigating the wheat crop. In mustard crop, majority (65 per cent) of the farmers adopted recommended irrigation methods but half of the selected farmers applied irrigation at critical stages. The study revealed that farmers were not adopting sprinkler method for irrigating the mustard crop. The extent of adoption of W M Practices in gram crop was found to be high (82 per cent) regarding irrigation method, irrigation at critical stages and number of irrigations. The study found that inadequate supply of canal water and lack of storage tank (diggi) were the constraints faced by the farmers in adopting sprinkler system of irrigation and application of irrigation at critical stages. The study recommended that supply of water in canal should be based on the prior assessment of the acreage under different crops along with their sowing times by the canal authorities in coordination with district agricultural officials.

Key words : Water management, *Rabi*, Wheat, Mustard, Gram, Barley, Constraints