

Adoption of drip irrigation system by orange growers in Amravati Taluka

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ABSTRACT

Investigation was carried out during the year 2009 -10 from 15 villages of Amravati taluka of Amravati district, 120 respondents (orange growers) who adopted, drip irrigation system were randomly selected for the study. Data were collected from the orange growers with help of pretested schedule by personal interview method. The result revealed that majority 47.50 per cent of respondent orange growers had medium level of adoption of drip irrigation system while, 30.83 per cent of respondent orange growers were low level of adoption and 21.66 per cent of respondent possess high level of adoption of drip irrigation system. The correlation analysis related to independent variable viz. education, annual income, Innovation, knowledge, socio-economic status and, extent of extension contact, cosmopolitanism and awareness shows significant and positive relationship with adoption of drip irrigation system. While age, land holding and social participation showed negative and non-significant relationship between adoption of drip irrigation system. Majority of respondents faced constraints like load shading of electricity for too long interval (10-14 hrs/day) expressed by 100 per cent of orange growers, damage due to rodents (85.00 per cent), choking of micro tubes and drippers (81.66 per cent), non-availability of repair services (85.00 per cent) and lack of technical knowledge is 70.00 per cent and lack of knowledge about application of fertilizer (fertigation) (71.66 per cent). To overcome these constraints it was observed that provide regular supply of electricity, Increase the subsidy and facility on drip irrigation by government and training should be given to the farmers regarding operation, maintenance, repairing and application of water soluble fertilizers.

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INTRODUCTION

Mandarin orange (*Citrus reticulata*) is most common among citrus fruit grown in India. It occupies nearly 50 per cent of total citrus area under orange in India, 2313.43 hectare and production 310 million tone. The leading producer of orange are Maharashtra, Assam, Madhya Pradesh, Punjab, Karnataka, Tamil Nadu, Meghalaya, Tripura, Haryana, Rajasthan and West Bengal.

The citrus tree needs good amount of water for high production and it is affected under deficit irrigation the total water requirement for citrus crop is 1400 mm while daily water requirement was 3.87 mm (Samudre and Sunny 2007). One of the reason for low yield is lack of concern towards irrigation management as the tree are sensitive to the availability of soil moisture status. The growth of orange tree is influenced by soil moisture, nutrient, environmental condition and management practices out of these factors of irrigation and fertigation is of great importance. Selection of proper irrigation method is of great importance in case of orange orchard. In Maharashtra 215.62 lakh ha. of the land is under different crop only 14.52 per cent in Vidarbha out of the 59.89 lakh ha cropped area

is only 11.49 per cent is under irrigation.

Drip technology is the latest innovation of irrigation technique, system of drip irrigation is becoming increasingly popular and this is the need to save atmosphere in Maharashtra the area under drip irrigation has been increased upto 1,41,981.05 hectare till 2001 because of increase yield. 20-25 per cent, water saving 45-70% and fertilizer saving 20-40% in many orchards and vegetable crops. maximum yield increase due to drip irrigation was in vegetable (60%) followed by fruit (40%) and common crop (27%) (Jaware and Dixit, 2007).

METHODOLOGY

Amravati block is properly selected for the study. The study was conducted in Amravati taluka of Amravati district have orange in 6460.15 ha. Number of village in Amravati block are 120, total area under drip irrigation was 1209.39 ha. And no. of beneficiaries of drip irrigation system is 887 farmers under central and state sponsored scheme drip irrigation system.

Orange grower located in 15 villages, they were contacted at their places of residences and data was collected by personal interview. From 15 village 120 orange growers was

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