

Studies on factors influencing the drip irrigation adoption, constraints and remedial measures to increase area under drip irrigation

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■ **ABSTRACT** : The study was conducted on Drip and Surface Irrigation banana crop in Dharwad district of Northern Karnataka during the year 2010 -11 and 2011-12. The 100.00, 96.59, 92.05, 90.91, 87.50, 73.86 and 53.41 per cent drip irrigation farmers were influenced by the benefits like saving in water, labour, easy application of water, increased yield, reduced weed growth, better quality produce and to avail subsidy, respectively for drip adoption. The 87.50, 65.91, 48.86, 39.77, 35.23, 30.68 and 26.14 per cent drip irrigation farmers were influenced by neighbours and relatives, Private Agencies, Agricultural Assistants, Assistant Horticulture Officers, Non-Governmental Organizations, Television and Radio, respectively for drip adoption. The 100.00, 98.86, 87.50, 80.68, 78.41, 73.86, 71.59, 69.32 and 64.77 per cent of drip irrigation farmers were having constraints like complicated procedures in getting loan, delay in sanction of loan, non availability of soluble fertilizers, inadequate supply of electricity, choking of laterals and drippers, initial investment is high, inadequate follow up services by drip agencies, non availability of quality materials and rodents damage to the laterals, respectively. The remedial measures suggested to improve drip performance and to increase area under drip irrigation are, the persons involved in design and layout of drip irrigation systems are to be properly trained, supply of good quality materials should be ensured, follow up services are to be ensured, solutions for the rodents damage, training the farmers on maintenance of the drip irrigation systems, ensure the adequate supply of the soluble fertilizers and immediate sanction of loan simplifying the procedure or providing cent per cent subsidy.

■ **KEY WORDS** : Subsidy, Soluble fertilizers, Remedial measures, Performance, Maintenance

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India has made a appreciable progress in creating irrigation potential. However, it is still insufficient to meet the long term requirement of irrigation. The ever increasing population has put tremendous pressure on food demand. Every unit of available land resource and other critical inputs needs to be exploited to reap maximum benefits. In feature, the most critical input happens to be water, which has become scarce. In an effort to make irrigation more efficient to obtain more crop per drop, farmers have adopted alternatives to flooding and other conventional irrigation methods. Among all the irrigation methods drip irrigation is an efficient method to provide irrigation water directly into the soil at the root zone of plants and it permits the irrigator to limit the watering closely to the crop water requirements.

■ METHODOLOGY

The study was conducted in Dharwad district in

Karnataka state and among the five taluks of Dharwad district, three taluks namely Dharwad, Hubli and Khalghatagi were purposively selected based on the highest area under drip irrigation. The village wise list of drip irrigation farmers was obtained from the Deputy Director of Horticulture, Dharwad district. The revenue villages were arranged in descending order based on the drip area and top ten villages in each taluka were selected. The selection of the farmers was made on the basis of major crops, holding size and year of plantation. The study was restricted to those crops which are in normal yielding stage, accordingly banana was the only crop and hence it was selected for the study. The seventy five per cent of the farmers who have installed drip irrigation system for banana, planted during 2009-10 amounting to eighty eight were selected from the Dharwad, Hubli and Khalghatagi taluks of Dharwad district by following proportionate random sampling technique. The corresponding number of farmers