

Benefits of water savings of drip irrigation system on sugarcane cultivation

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ABSTRACT

Investigation was carried out during June-September 2005. Twenty five growers were randomly selected from 8 villages of Baramati Tehsil of Pune district in Maharashtra for the study. The data on different aspects of sugarcane cultivation were collected in a specially designed questionnaire during the field visit. Sugarcane being water intensive crop is cultivated over a large area in Maharashtra, it was decided to conduct a field study to assess the benefits of pre drip irrigation versus post drip irrigation on sugarcane cultivation. It was observed that drip irrigation system helped in savings the water in the range of 28 to 78 per cent with average of 59 per cent over the surface flow method. However, 24 per cent of the farms surveyed were recorded with high level of water saving *i.e.* 66-70 per cent. This water saving has been utilized to increase the area under irrigation by 52 per cent on an average.

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Key words : Sugarcane, Pre-drip, Post-drip, Surface irrigation

Sugarcane is an important cash crop and plays an important role in the country's agriculture and industrial economy. Maharashtra is a leading state in sugarcane cultivation next only to Uttar Pradesh. The productivity this crop has been declining and cultivation of this crop is becoming less economical. The availability of water for irrigation has been declining drastically, while the demand for irrigation water has been growing at a faster rate.

In Indian agriculture one of the factor great concern is water non availability of adequate water is a perpetual problem for farmers. Efficient application of irrigation water is an important factor in obtaining the desired cane and sugar yield per hectare. Since sugarcane is a perennial crop and requires application of water throughout its growth period, drip irrigation is the only means through

which efficiency in water management could be achieved. To assess the benefits of pre drip irrigation versus post drip irrigation on sugarcane cultivation a study was conducted in Baramati Tehsil of Pune district with following objectives to assess the benefits of pre drip irrigation versus post drip irrigation on savings in water in sugarcane cultivation and to study distribution of water savings through drip irrigation system.

METHODOLOGY

Collection of data:

The study was conducted during the period of June – September 2005. The complete list of farmers irrigating sugarcane with drip system in Baramati Tehsil was obtained from the Sub-Divisional Agricultural Officer, Baramati. From the list, a sample of 25 farmers was randomly selected for the purpose of study. The data on different aspects of sugarcane cultivation were collected in a specially designed questionnaire during the field visit.

Analysis of data:

The data could be collected for studying different aspects saving in water and saving in energy. It was tabulated in a systematic manner for analyzing the various aspects of drip irrigation system in sugarcane cultivation. The charts were prepared from the tabular data wherever necessary for better understanding of the results.

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