



RESEARCH PAPER

Studies on surface irrigation methods for sunflower in Dharwad district of Northern Karnataka

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Abstract : Field experiment was conducted to study the response of different methods of surface irrigation for sunflower at water and land management institute campus, Dharwad of Northern Karnataka during 2013-14 to 2015-16. The study revealed that, the increase in grain yield was 12.71 and 9.23 per cent in alternate furrow irrigation and in conventional furrow irrigation, respectively over flooding method of irrigation. The saving in irrigation water was to the extent of 29.60 and 12.12 per cent, respectively in alternate furrow irrigation and conventional furrow irrigation over flooding method of irrigation. The water productivity was 41.59, 30.89 and 25.82 kg/ha-cm in alternate furrow irrigation, conventional furrow irrigation and flooding method of irrigation, respectively. The increase in water productivity was 60.61 per cent in alternate furrow irrigation over flooding method of irrigation and 19.56 per cent in conventional furrow irrigation as compared with that of surface flooding method. The gross benefit-cost ratios were 2.33, 2.25 and 2.06 in alternate furrow irrigation, conventional furrow irrigation and flooding method of irrigation, respectively. The increase in net income per ha-cm of water used was 78.35 and 29.23 per cent, respectively in alternate furrow irrigation and in conventional furrow irrigation over flooding method of irrigation.

Key Words : Surface irrigation, Crop response, Water productivity, Benefit-cost ratio, Net profit

View Point Article : Meti, C.B. and Balaganvi, Subhas (2022). Studies on surface irrigation methods for sunflower in Dharwad district of Northern Karnataka. *Internat. J. agric. Sci.*, **18** (2) : 731-734, DOI:10.15740/HAS/IJAS/18.2/731-734. Copyright@ 2022: Hind Agri-Horticultural Society.

Article History : Received : 28.03.2022; Revised : 13.04.2022; Accepted : 16.05.2022