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RESEARCH PAPER

Comparative analysis of effect of *in-situ* moisture conservation technique through tractor operated check basin former over conventional flatbed method in sandy loam soils

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Abstract : A feasibility testing of tractor operated check basin former was carried out at Instructional farm, CTAE, MPUAT, Udaipur, aiming to form check basins of size 6 x 2 m for in situ moisture conservation. The machine was evaluated for the check basin characters like length, width, height of side and lister bund and draft required for different speeds (2,3,4,5 and 6 km/h), depth of operation of side bund former (45, 70 and 90 mm) and depth of lister (20, 30 and 40 mm). The developed prototype performed its intended task with reduced drudgery and time. The results of the study revealed that, with the tractor operated check basin former, the farmers can conserve about 13.05 % and 11.10% more moisture as compared to flatbed method in 0-150 mm and 150-300 mm of soil depth respectively.

Key Words : Effect of *in-situ* moisture conservation, Technique through tractor operated, Check basin former

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