

Comparative performance of different puddling equipments

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■ **ABSTRACT** : This study was conducted at farmer's field as well as at KVK farm in Gurdaspur district of Punjab to evaluate the performance of various puddling implements viz., pulverizing roller (T_1) and rotavator (T_2) with comparison to conventional method of puddling (T_3) being used by the farmers in the various parts of the state. In T_1 the puddling was done by two passes of pulverizing roller whereas in T_2 it was done with only single pass of rotavator and in T_3 by two passes of cultivator followed by two passes of planker. The puddling index (PI) was highest in T_2 (71.5%) followed by T_1 (69.3 %) and T_3 (49.8 %). The PI of all the treatments differed significantly from each other, though the PI in T_1 and T_2 was far better than T_3 . The infiltration rate in case of T_1 and T_2 was 11.8 and 17.6 per cent lower than T_3 , respectively. The net returns (Rs. 52,250/ha) and benefit cost ratio (3.1) was highest in case of T_1 , followed by T_3 (Rs. 52,100/ha and 2.7) and T_2 (Rs. 51970/ha and 2.5) treatments, respectively.

■ **KEY WORDS** : Puddling index, Infiltration rate, Pulverizing roller, Rotavator, Net returns

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