

## **Performance evaluation of tractor drawn drip lateral coiler**

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**ABSTRACT :** The tractor operated drip lateral coiler was fabricated at Department of Farm Power And Machinery, Dr. PDKV, Akola and evaluated for its feasibility test in actual field condition. During hand coiling operation of the drip laterals it got very difficult to make the bundles due to its weight on hands and folds occurs during coiling. Hand pulling and twisting occurs on drip laterals get damage the laterals. Similarly for placing and coiling the laterals, the labour has to need to be working in bending posture, which increases the drudgery in operation due to which labours demands the more charges. Besides these constrains the efficiency of manual coiling and de-coiling is very poor and improper coiling and de-coiling increased the damaged to the laterals and reduces the life of the laterals. It was observed that the average field efficiency of the tractor operated lateral coiler was 87 % and for manual coiler was found to be 78.26% whereas in hand coiling was observed as 63.46.%. The cost of coiling operation in tractor operated lateral coiler was observed as Rs/ha 468/- where as in manual coiler and hand coiling operations it was found to be Rs./ha 650 and Rs/ha 1280/- respectively. Net saving cost of tractor operated drip lateral coiler was worked out and it was observed that 28% and 63.43% over manual coiler and hand coiling method, respectively.

**Key Words:** Drip lateral, coiling, de-coiling, manual, performance.