

Development of bullock drawn zero till planter for *Dolichos bean* in Konkan region of Maharashtra

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ABSTRACT : Seeding or planting is one of the most important and basic farm operations in agriculture as it decides the production of crop. Planter is the most versatile implement used for sowing the seed. It is specially used to sow the seed or group of seeds at a predetermined depth and space interval. Zero tillage provides good protection for the soil from erosion and helps retain moisture for the new crop. Zero tillage (also called no-till farming or direct drilling) is a way of growing crops or pasture from year to year without disturbing the soil through tillage. As there is heavy demand for sowing of *Dolichos beans* after harvesting paddy crop on residual moisture of the soil in Konkan region of Maharashtra, a bullock drawn zero till planter was developed for *Dolichos beans* with plant-to-plant spacing of 150 mm and row to row spacing of 300 mm to 450 mm (adjustable). A cup fed vertical disc metering mechanism was used to drop seeds one by one. The developed planter can easily operate by a single operator using single bullock power. The metering mechanism of the planter can deliver the recommended seed rate of 45 to 50 kg/ha for *Dolichos beans*.

Key Words : Zero tillage, bullock drawn zero till planter, cup fed metering mechanism, *Dolichos beans*.