TRACTOR DRIVEN ONION TRANSPLANTER

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INNOVATOR

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PROBLEM ADDRESSED

The task of transplanting onion seedlings manually is time consuming, labor intensive and toilsome process. This implement is an affordable, semi-automatic transplanter for timely sowing of onion seedlings.

PRODUCT

It is a tractor drawn semi - automatic Onion transplanter. It can perform three functions at a time viz. transplanting the onion, applying the fertilizer and making the irrigation channels. When the tractor moves forward, the star wheel type metering mechanism gets the drive to release the fertilizer in the tubes. The seedlings are delivered manually in the delivery chutes for planting. The inter-row and inter-plant spacing can be adjusted in the machine to a finer level. Two depth controlling wheels fitted on either ends of the equipment maintain the uniform depth of onion planting. A channel forming ridger plough is mounted offset to the right end of the transplanter to form the irrigation channel simultaneously

TECHNICAL DETAILS

- Power required: More than 25 hp tractor.
- Working width: 1.5 m (includes 8 furrow openers).
- Plant Spacing: 18 x 9 cm
- Depth of plantation: 1 cm
- Transplants 5, 50,000 seedlings per ha. (as against 4,20,000 to 4,70,000 in conventional planting).
- Manpower Requirement: 5 labors (1 driver + 4 labors).
- Capacity: 1 hectare per day (of 8 hours).
- Weight: 300-350 kg (with fertilizer drilling arrangement).

SALIENT FEATURES

- Uniform Planting (maintain row to row and plant to plant spacing).
- It gives 100 % of plant emergence.
- Facilitates the mechanical weeding and harvesting.
- It can also be used for drilling the cereals and pulses.

AWARDS AND RECOGNITION

Innovator has won National Award in NIF's Fifth Biennial Award function for Grassroots Innovations & Traditional Knowledge, 2009.

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