

ROLE AND USE OF IMPROVED AGRICULTURAL IMPLEMENTS

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IMPROVED IMPLEMENTS

SOWING AND FERTILIZER EQUIPMENT

Sowing time and the way it is done decisively influence seed germination and later the growth of the seedling. This, in turn, affects the effectiveness of subsequent weeding and intercultivation operations and finally crop yield

SOWING AND FERTILIZER EQUIPMENT

Seed cum fertilizer drill

This implement drops seeds and fertilizers simultaneously at desired depths

Provision is made to drop fertilizers about 35mm below and 35mm by the side of the seed

Does the work of two labours who are otherwise required for dropping fertilizers behind seed drill

SOWING AND FERTILIZER EQUIPMENT

Seed cum fertilizer drill



WEEDING AND INTERCULTIVATION IMPLEMENTS

Hand weeders / cycle weeders

**Very efficient in row crops particularly in sandy and loamy soils.
Can be operated easily by single person**

The fatigue in operating long handled weeders is considerably low because the operator works in a standing posture

0.2 to 0.3 ha of land can be covered in a day

WEEDING AND INTERCULTIVATION IMPLEMENTS

Hand weeders / cycle weeders



WEEDING AND INTERCULTIVATION IMPLEMENTS

Intercultural hoe

Combination of blade fitted across the tynes

Helps in loosen the top soil, uproot shallow rooted weeds by the projected tynes and forms furrows and ridges by simultaneously throwing soil on either side in one operation

WEEDING AND INTERCULTIVATION IMPLEMENTS

Intercultural hoe



PLANT PROTECTION EQUIPMENTS

- ❖ **Manually operated knapsack sprayer**
- ❖ **Compression sprayer**
- ❖ **Foot sprayer**
- ❖ **Rocker sprayer**
- ❖ **Knapsack power sprayer**
- ❖ **Hand rotary duster**

PLANT PROTECTION EQUIPMENTS

- ❖ Manually operated knapsack sprayer**
- ❖ Compression sprayer**
- ❖ Foot sprayer**
- ❖ Rocker sprayer**
- ❖ Knapsack power sprayer**
- ❖ Hand rotary duster**

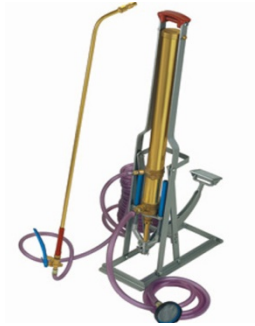
PLANT PROTECTION EQUIPMENTS



**Manually operated
knapsack sprayer**



**Compression
sprayer**



**Foot
sprayer**



**Power
sprayer**



**Rotary
Duster**

HARVESTING AND THRESHING EQUIPMENTS

Groundnut and potato digger

Efficient implement for digging groundnut and potato

Transport cum depth gauge wheels are provided for easy transport and uniform depth of operation

Lift rods are provided behind the blade to facilitate separation of soil from groundnut and potato

HARVESTING AND THRESHING EQUIPMENTS

Groundnut and potato digger



HARVESTING AND THRESHING EQUIPMENTS

Multi purpose thresher

Suitable for threshing cereals, pulses and oilseeds

Operates through threshing cylinder and electric motor

Equipment provided with grain cleaning arrangement

Output capacity – 40kg to 300kg per hour

HARVESTING AND THRESHING EQUIPMENTS

Multi purpose thresher



HARVESTING AND THRESHING EQUIPMENTS

Maize sheller

Power operated equipment

Used for separating grain from dehusked maize cobs

Output capacity – 40kg to 300kg per hour

HARVESTING AND THRESHING EQUIPMENTS

Maize sheller



- ❖ As timeliness of operations is the key to the success of crop production, improved agricultural implements are essential components of dryland crop production systems**
- ❖ In deciding farm mechanization in dryland areas, where farmers are generally poor, their socio-economic conditions should always be kept in mind**