

Manually operated Vaibhav Sickle

Function : It is used for harvesting paddy and wheat

Components : It consists of serrated blade, ferrule and wooden handle. Cutting of crop stalk is done with Vaibhav sickle by sawing action . Because of serrated blade, it is not necessary to sharpen it often.

Source of power : Human

User :

Female and male workers

Mode of action :

Sawing action



Manually operated Laxmi Sickle

Function : It is used for harvesting soybean, maize, chick pea, grasses and thin stalked crops.

Components : It consists of serrated blade, ferrule and wooden handle. Cutting of crop stalk is done with Laxmi sickle by sawing action. Because of serrated blade, it is not necessary to sharpen it often.

Source of power :

Human

User :

Female and male workers

Mode of action :

Sawing action



Manually operated Tubular Maize Sheller

Function : It is used for shelling dry cobs of maize crop

Components : It is made of mild steel sheet and is tubular in shape. Four tapered fins are provided in the maize sheller which help in shelling the maize grain from dried cobs. A cob is inserted into it and by twisting action, shelling is achieved.

Type : Rotational

Source of power : Human

User : Mainly female workers

Mode of action : Torque application by hands



Manually operated Bhendi Plucker

Function : It is used for cutting of Bhendi without any injury to the hands of female workers due to bristles on Bhendi fruit

Components : It is made of a pair of serrated blades made from mild steel. A pair of special round shaped rings are provided on this hand tool which help in inserting thumb and index finger in it so as to operate the cutting blades by applying force.

Source of power : Human.

User : Mainly female workers.

Mode of action : Pressing force of finger.



Manually operated Groundnut Decorticator

Function : It is used for decortication of groundnut pods thereby saving time, money and labour.

Components : It is made of main frame, slotted sieve, spike shoe type scrubber, T-type handle with wooden grips. Manually groundnut pods are fed into it and due to rubbing action of shoes and sieve through to and fro movement of handle, kernels are detached from the pods.

Source of power : Human.

User : Mainly female workers.

Mode of action : Frictional force through scrubbing action.



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Tractor operated Phule Inter Row Cum Intra Row Weeder for Orchards

Use : Tractor operated Phule intra row cum inter row weeder is useful for inter-row as well as intra row removal of weeds in orchards. Easy extend and retract of the rotary unit by swiveling action of hydro-mechanically controlled sensor. Wrap around frame gives up front visibility to the operator. Mechanical linkages with hydraulic mechanism has been used hence the cost of the machine is reduced significantly.

Power Source :
More than 18 tractor
Field capacity :
0.17 ha h⁻¹ for
Pomegranate
0.16 ha h⁻¹ for Grapes



Tractor operated Phule Sugarcane Transplanter

Use : Useful for transplanting of Sugarcane seedlings grown in protrays. It saves labour, time and money over traditional method. The planter could be used as an effective planting tool in Sustainable Sugarcane Initiative programme for Sugarcane

Power Source :
45 Hp tractor
Field capacity :
0.29 ha h⁻¹



Power Operated Phule Sugarcane Sett Cutter

Use : The power operated Phule Sugarcane sett cutter is useful for cutting Sugarcane setts. This machine is suitable for Sugarcane nursery growers and Sugarcane growers.

Power Source :
01 Hp Electric motor
Avg. capacity :
6664 sett h⁻¹.



Tractor drawn Phule Mole Plough

Use : Useful for reclamation of salinity affected soils, particularly in Sugarcane growing areas. Mostly used in heavy soils where water logging is major problem. Operating cost is very low.

Power Source :
more than 60 HP tractor is required.
Working depth : 60 cm
Field capacity :
for 2m interval : 0.16 ha h⁻¹
for 4m interval : 0.32 ha h⁻¹



Tractor operated Phule Check Basin Former

Use : It prepares check basins in one pass of tractor. Useful for insitu moisture conservation.

Size of check basin : 2m width X 6m length
Height of main side ridge : 22.0 cm
Base width of main side ridge : 44.0 cm
Height of Cross ridge : 16.0 cm
Base width of cross ridge : 32 cm
Power source : 35 HP tractor
Field Capacity : 4 to 4.5 ha day⁻¹



Power operated Phule Medicinal Nut Sheller

Use : Useful for shelling of medicinal nuts like hirda, ritha etc.

Avg. shelling capacity :
120 to 130 kg h⁻¹
Avg. shelling efficiency :
84 to 87 percent
Weight of the Machine :
68 kg
Power source :
operated on single phase
1 Hp motor by single person



Tractor drawn multicrop planter

Use : Planting of Jowar, Wheat, Maize, Sunflower, Safflower, Groundnut, Gram, Pigeon pea, Soybean etc Doses of granular fertilizer can be applied at the time of planting simultaneously.

No. of furrow openers :
Varied from 9 to 5 according to row spacing
Row-to-row distance :
22.5, 30, 45 cm (adjustable)
Power source :
35 HP Tractor
Field capacity :
3.0 to 3.5 ha day⁻¹



Manually operated Cycle Hoe

Function : It is used for weeding and inter-culturing in upland row crops

Components : It consists of iron rim wheel, a frame, three tines, blade, cross handle bar and a long handle

Source of power : Human
User : Female and male workers
Mode of action :
Pull and push action



Manually operated Peg Tooth Weeder

Function : It is used for weeding and inter-culturing in field crops cultivated in dry land region

Components : It consists of peg drum, a frame, blade, cross handle bar and a long handle

Source of power : Human
User :
Female and male workers
Mode of action :
Pull and push action



Manually operated Drumstick Harvester

Function: It is used for detaching drumstick pods from the tree.

Components : It is provided with long telescopic handle made from hollow aluminum pipe, a pair of cutting blades, long cable, lever, collecting bag. It is hold and cut type of harvesting tool. The operator has to position the hand tool in such a manner to hold the drumstick pod in the collecting bag first and then detaching the pod from the tree by cutting blades operated by the lever. The detached pod is collected in the collector bag.

Source of power : Human. **User :** Mostly female workers
Mode of action : Shearing action

