

Name of Agricultural Machine to be Fabricated

1. PUSA CARROT PLANTER

Two Beds Each With 4- Rows With Adjustable Row To Row Spacing Operated By A 45 Hp Tractor Having Field Capacity 0.5 Ha/H, As Per The Specification Of Prototype Available In The Division Of Agril. Engg



2. PUSA CARROT HARVESTER:

A Single Cutting Blade (Angle 15°) Consists Of Equally Spaced Three V-Type Cutting Edges. Width Of Coverage Of The Carrot Harvester Is 1.3 M. Operated By 45 Hp Tractor Having Field Capacity 0.5 Ha/H, As Per The Specification Of Prototype Available In The Division Of Agril.Engg



3. PUSA GARLIC PLANTER

Aluminum Casted Vertical Metering Plates With Eight Hemispherical Cups Operated By 45 Hp Tractors, Row Spacing Of 150 Mm, As Per The Specification Of Prototype Available In The Division Of Agril. Engg.



4. PUSA GARLIC HARVESTER

As Per The Specification Of Prototype Available In The Division Of Agril.Engg



5. PUSA OKRA SEED EXTRACTOR :

Powered By 2hp Electric Motor, Capacity 70 Kg/H, As Per The Specification Of Prototype Available In The Division Of Agril. Engg



6. PUSA ONION SEED EXTRACTOR:

Powered By 1 Hp Single-Phase Motor; Capacity 25 Kg (Onion Umbel) / H, As Per The Specification Of Prototype Available In The Division Of Agril. Engg



7. PUSA UAN CUM SEEDAPPLICATOR

Tractor Operated 9-Row Seeder Suitable For Wheat Crop Provided With Two Tanks (Capacity 150 Liters Each) Made Up Of Stainless Steel, Pto Operated Piston Pump And Rotary Distributor For Liquid Fertilizer I.E.Uan Application As Per The Specification Of Prototype Available In The Division Of Agril. Engg



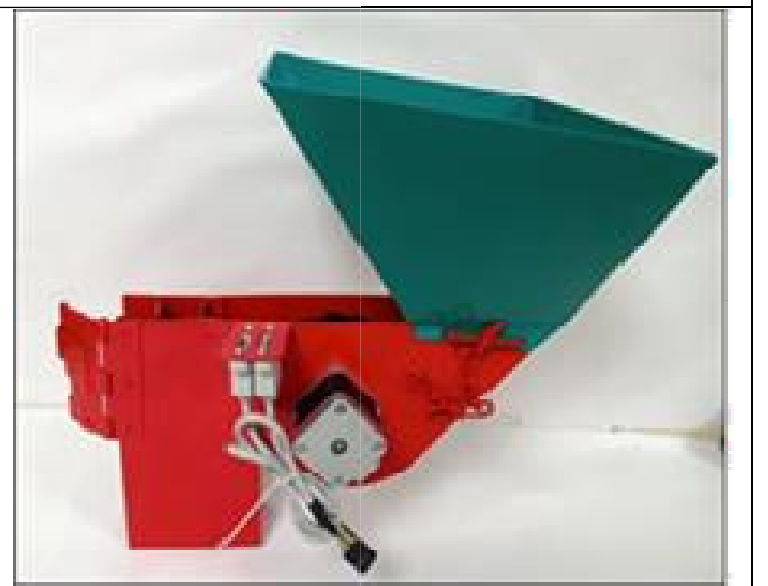
8. PUSA PRECISION DIRECT SEEDED RICE (DSR) PLANTER

Tractor Operated 9-Row Planter Suitable For Direct Seeding Of Rice, Seed Metering System- Inclined Plate With Slanted Type Notch, Other Specifications Are As Per Prototype Available In The Division Of Agricultural Engineering, Iari, New Delhi- 12



9. PUSA ELECTRONIC SEED METERING RETROFIT MODULE KIT FOR CULTIVATORS (9+1 UNITS)

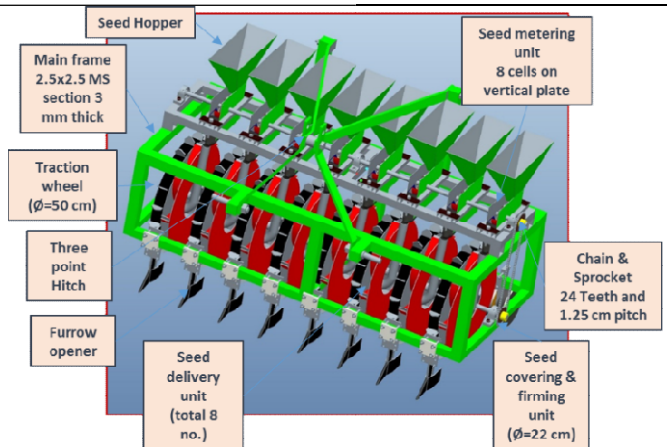
It Is A Low-Cost Retrofit Module. It Can Be Installed And Removed Very Easily On Cultivators. This Module Has Mechanical Components And An Electronics Controller. Electronics Controller Comprised Of An Arduino Microcontroller, A Nano I/O Shield Expansion Board, 9 Stepper Motor With Driver, A D.C. To D.C. Buck Converter, A Rotary Encoder, A 12V DC Battery, A Male-To-Male USB Cable Etc. Mechanical Components Consisted Of Hopper, Seed Metering Roller And Ground Wheel. 9 Pieces Are Required For One Cultivator Of 9 Tyne Cultivators. Specifications Are As Per Prototype Available In The Division Of Agricultural Engineering, IARI, New Delhi-



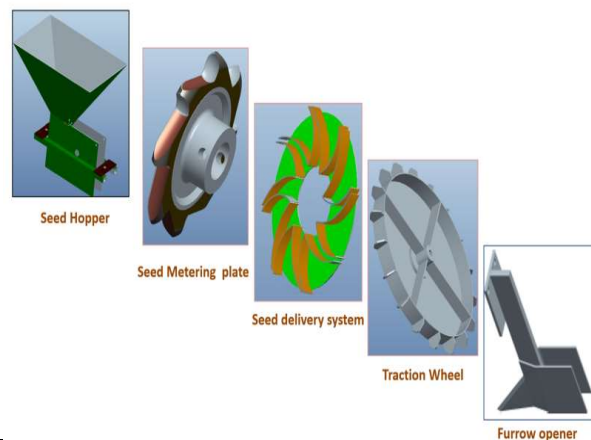
10.PUSA TRACTOR DRAWN 8-ROW SWI PLANTER (Planter for System of Wheat Intensification (SWI))

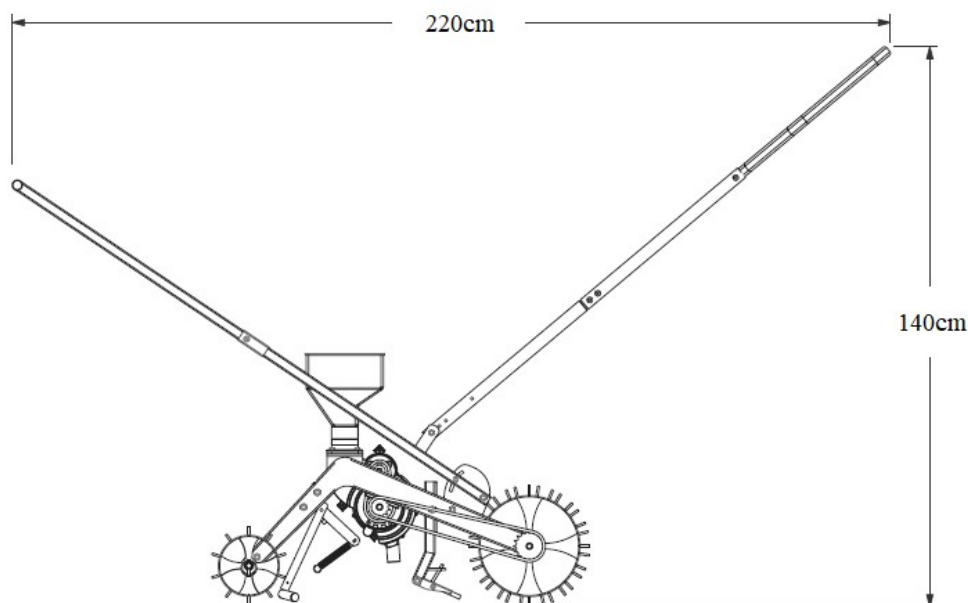
Technical Details

1. Power Required: Tractor above 35HP
2. Mounting Type: 3-point hitch system for mounting
3. Main Frame: Mild Steel (MS), with a 50 mm square section and a thickness of 3 mm.
4. No. Row: 8 Row
5. Row to row spacing: 200mm
6. Hopper and seed Metering: Modular hopper with star wheel (cell type, 8 cells)
7. Seed Delivering unit: Spiral vanesto guide the seeds(8 No., one for each)
8. Furrow opener: Inverted T-type
9. Press Wheel: 2- press wheels each row, Dia. 200 mm, width of 30 mm tapered 130° fitted on 20mm shaft at 20 mm spacing



Components of SWI planter





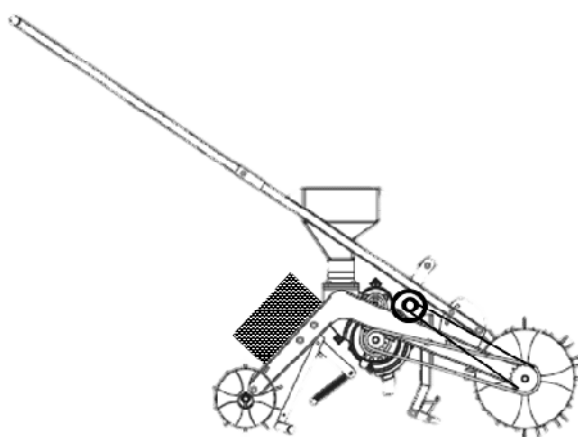
11. PUSA MANUAL MULTI CROP PLANTER-CUM-WEEDER,		
S.No.	Particular	Specifications
1.	Length of machine	220±10 cm
2.	Width of machine	30±5cm
3.	Height of machine	140±10 cm
4.	Weight	18 - 22 kg
5.	Front wheel Diameter	30 - 35 cm
6.	Rear wheel	4 no., 18 - 22 cm (Diameter) (2 with lugs and 2 without lugs)
7.	Seed box	2 - 2.5 kg seed storage, plastic material
8.	Seed metering with knockout device	6-10 number of metering roller suitable to crop like maize, groundnut, soyabean, Bhindi, Mung, etc.
9.	Furrow opener	Shoe type, showing depth adjustable 0-8 cm
10.	Seed covering device	15-20cm (length), pipe (25 mm Minimum)
11.	Weeding tools	Tree types of weeding tools (sweep and flat blade type)
12.	Drive	Chain and sprocket drive, two number of sprocket, 18, 12
13.	Handle	Sperate handles for pushing and pulling, with height adjustment
14.	Main frame	Minimum : 2mm MS sheet
15.	Paint	Powder coated Colour
16.	Name sticker	Pusa manual multicrop planter
17.	Logo sticker	ICAR & IARI, logo size : Round shape (2 inch diameter)

ICAR logo link

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IARI logo link

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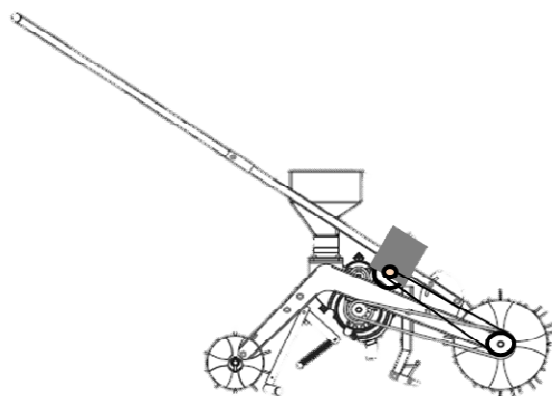
12. PUSA BATTERY OPERATED MANUAL MULTI CROP PLANTER-CUM-WEEDER		
S.No.	Particular	Specifications
A) Planter Specification		
1.	Length of machine	220±10 cm
2.	Width of machine	30±5 cm
3.	Height of machine	140±10 cm
4.	Weight	18 - 22 kg
5.	Front wheel	30 - 35 cm
6.	Rear wheel	4 no., 18 - 22 cm (Diameter) (2 with lugs and 2 without lugs)
7.	Seed box	2 - 2.5 kg seed storage, plastic material
8.	Seed metering with knockout device	6-10 number of metering roller suitable to crop like maize, groundnut, soyabean, Bhindi, Mung, etc.
9.	Furrow opener	Shoe type, showing depth adjustable 0-8 cm
10.	Seed covering device	15-20cm (length), pipe (25 mm Minimum)
11.	Weeding tools	Tree types of weeding tools (sweep and flat blade type)
12.	Drive	Chain and sprocket drive, two number of sprocket, 18, 12
13.	Handle	Sperate handles for pushing and pulling, with height adjustment
14.	Main frame	Minimum : 2mm MS sheet
15.	Paint	Powder coated Colour:
16.	Name sticker	Pusa battarymulticrop planter
17.	Logo sticker	ICAR & IARI, logo size : Round shape (2 inch diameter)
B) Power unit specification		
1.	Motor with speed controller and gear box	Type: DC/PMDC/BLDC Voltage: 24 volt Power: 250 Watt (minimum) Power Wheel Speed range: 0.5 – 2.5 km/h
2.	Battery with Charger	TYPE: Lithium ion Voltage: 24 Volt Capacity: 48Ah (Minimum)

ICAR logo link

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IARI logo link

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13. PUSA ENGINE OPERATED MANUAL MULTI CROP PLANTER-CUM-WEEDER		
S.No.	Particular	Specifications
A) Planter Specification		
1.	Length of machine	220±10 cm
2.	Width of machine	30±5 cm
3.	Height of machine	140±10 cm
4.	Weight	18 - 22 kg
5.	Front wheel	30 - 35 cm
6.	Rear wheel	4 no., 18 - 22 cm (Diameter) (2 with lugs and 2 without lugs)
7.	Seed box	2 - 2.5 kg seed storage, plastic material
8.	Seed metering with knockout device	6-10 number of metering roller suitable to crop like maize, groundnut, soyabean, Bhindi, Mung, etc.
9.	Furrow opener	Shoe type, showing depth adjustable 0-8 cm
10.	Seed covering device	15-20cm (length), pipe (25 mm Minimum)
11.	Weeding tools	Tree types of weeding tools (sweep and flat blade type)
12.	Drive	Chain and sprocket drive, two number of sprocket, 18, 12
13.	Handle	Sperate handles for pushing and pulling, with height adjustment
14.	Main frame	Minimum : 2mm MS sheet
15.	Paint	Powder coated Colour
16.	Name sticker	Pusa engine multicrop planter
17.	Logo sticker	ICAR & IARI, logo size : Round shape (2 inch diameter)
B) Power unit specification		
1.	Engine with gear box	Type: Petrol Engine Capacity: 30 – 60 CC Power Wheel Speed range: 0.5 – 4 km/h

ICAR logo link

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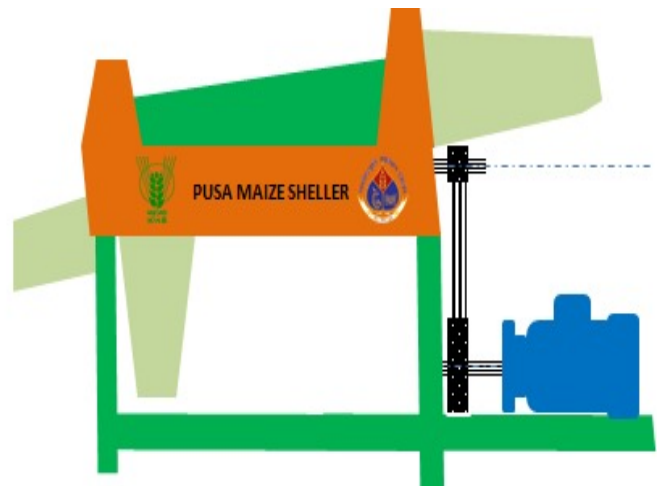
**14. PUSA POWERED PADDY THRESHER
CUM WINNOWER**

Power : MOTOR 2 HP
Size: H-70cm W38.2cm Depth 70cm
Gear20cm 80teath
Gear 5cm 20 teeth



**15. MAIZE SHELLER ELECTRIC MOTOR
2 HP SINGLE PHASE WITH
ACCESSORIES**

Power : MOTOR 2 HP
Size: H-30'' W42'' Depth 24''
Gear20cm 80teath
Gear 5cm 20 teeth



16. PUSA MULTI-CROP RIDGER PLANTER

Specifications Are As Per Prototype Available In The Division Of Agricultural Engineering, IARI, New Delhi-12

The overall dimensions of the Ridger planter are length: width: and height 175:168:97 cm

It comprises 3 hoppers (Diameter: 180cm), provision for making 3 ridges(2full ridge makers and 2 half ridge makers)

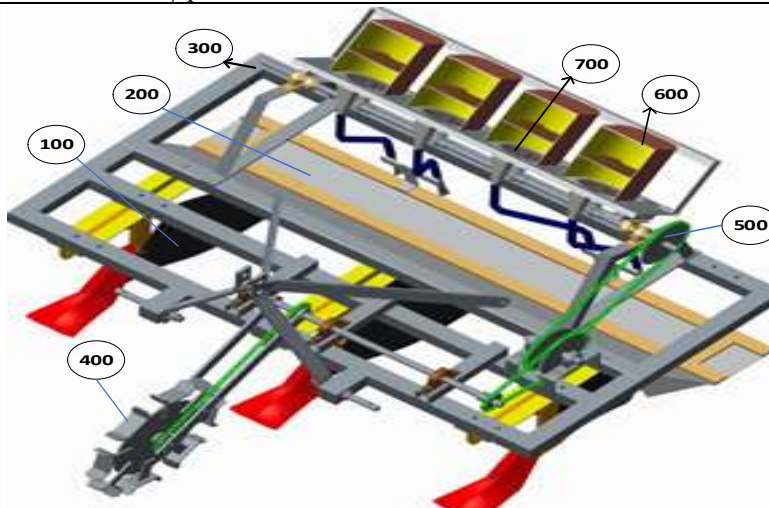
Three inclined plates with L-type cells on the periphery
Transmission system (4 sprockets, two chains, two bevel gears, 46 cm diameters of a ground wheel made of 10 mm flat)

Three-point hitch system



17. TRACTOR-DRAWN RAISED BED PULSE PLANTER

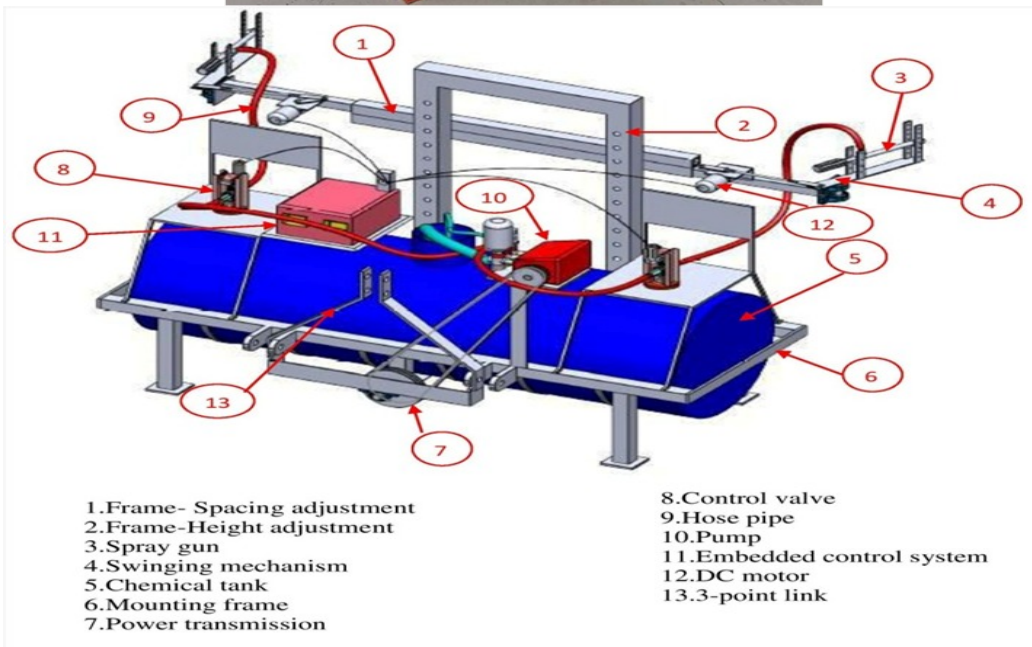
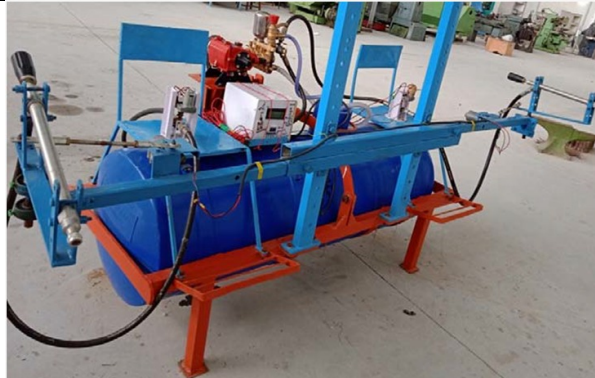
	Overall Dimensions	Length: 1850 mm, Width: 1830 mm, and height: 1220 mm
100	Furrow opener	3 Tyne Ridger
200	Raised bed maker	Two trapezoidal-shaped beds are made by the Raised bed maker and their (bed) base lengths are 700 mm, and 300 mm, and their height is 250 mm.
300	Chassis	Chassis is made by Square pipes (60 mm) and its overall size is 1060 * 1830 mm with a three-point hitch mounting frame.
400	Ground Wheel	Fork with Spike type of ground wheel and their diameter is 44 cm.
500	Transmission system	The speed ratio of the ground wheel to the inclined plate is 3.413. three 14 Teeth (T), three 32 T sprockets, and two bevel gears (10 T and 16 T) are included.
600	Hopper	4 separate hoppers (200 *240*190 mm)
700	Inclined Plate	The number of cells of the inclined plate for pigeon peas is 24. cells cut and thickness of the plate are 10 *11 mm and 5 mm.



18. PUSA PRECISION SWINGING LANCE SPRAYER

Specifications Power Source: Tractor (45 hp) No of Swinging lance (No) : 2 Chemical Tank: cylindrical shape of length 1720mm, diameter 550mm

Embedded Control system for swinging lance Swath width, m : 2-3m,



1. Frame- Spacing adjustment
2. Frame-Height adjustment
3. Spray gun
4. Swinging mechanism
5. Chemical tank
6. Mounting frame
7. Power transmission

8. Control valve
9. Hose pipe
10. Pump
11. Embedded control system
12. DC motor
13. 3-point link

