**5.1****FERTILIZER BROADCASTER**

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| **Features**  This equipment is used for broadcasting of granular fertilizer and small seeds of crop as well. The equipment is available in hand operated as well as tractor operated version. The hand operated broadcaster is kept in front of the operator with the help of shoulder straps provided with it and can be operated with the help of a handle. The tractor operated version is rear mounted and is operated by its PTO. The broadcaster, both versions, mainly consists of a hopper and a spinning disc. The seed or fertilizer from the hopper is made to fall on the spinning disc rotating at high speed, which in turn spreads the seed /fertilizer, uniformly all around due to centrifugal force. The flow of the material to the spinning disc can be controlled by a shutter plate. | |
| **Specifications:**  **Tractor Operated**  Power Source          :   Agricultural tractor                       35hp/26.5 kW  Hopper Capacity     :     300 Kg  Weight of Machine :      100 Kg  Height of machine  :      180 cm    Area covered          :     2.50 ha/h | **Manually Operated**     One person      Hopper Capacity : 10 kg    Weight: 4 Kg    Overall dimension (length, width and     height) = 41 cm, 38.5 cm and 41 cm.     Area covered: 1.0 ha/h |
| **Uses:**  It is used for broadcasting of granular fertilizer and seeds evenly into the field as per the  required rate.  **Cost of Machine : Rs 12000 (Tractor Operated) and Rs.2500/-(Manual)** | |

**5.2****SEED-CUM-FERTILIZER DRILL**

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| **Features:**    The seed cum fertilizer drill consists of a seed box, fertilizer box, seed and fertilizer metering mechanisms, seed tubes, furrow openers, seed and fertilizer rate adjusting lever and transport cum power transmitting wheel. The fluted rollers are driven by a shaft which gets power from wheels. Fluted rollers fixed in the seed box, receive the seeds into longitudinal grooves and drop them in the seed tube attached to the furrow openers. By shifting the rollers sideways, the length of the grooves exposed to the seed, can be increased or decreased and hence the amount of seed sown can be varied. | |
| **Specifications**    Length (mm)  Width (mm)  Height (mm)  Seed metering mechanism  Fertilizer metering mechanism  Number of furrow opener  Furrow opener  Size of feed shaft (mm)  Size (diameter) and number of flutes  Seed box capacity (cm3)  Fertilizer box capacity (cm3)  Weight (kg) | :      1940-2310  :      970-1560  :      1070-1350  :      Fluted roller  :      Gravity feed with agitator  :      9-13  :      Reversible shovel  :      16-19  :      42.7-49.2 and 9-11  :      66241-10308  :      63310-10141  :      224-328 |
| Power source (hp/kW)                           :     35/26.25, tractor    **Uses:**  Seed cum fertilizer drill is used for sowing of wheat and other cereal crops in prepared field    **Cost of Machine : Rs.35,000/** | |
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**5.3****ZERO-TILL DRILL**

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| **Features:**  Zero-till-drill consists of frame, seed box, fertilizer box, seed metering mechanism, fertilizer metering mechanism’, seed tubes, furrow opener seed/fertiliser adjusting mechanism and transport cum power transmitting wheel. The frame is made from mild steel box section. The tynes are mounted with the help of clamps, to obtain infinite row spacing. The main difference between zero-till drill and conventional drill is that it has inverted T-type furrow opener fixed on the tynes instead of reversible shovels type furrow openers. The main advantage of inverted t-type furrow openers is non formation of clods, lower draft requirement and easier penetration in the soil. | |
| **Specifications**    Length (mm)  Width (mm)  Height (mm)  Seed metering mechanism  Fertilizer metering mechanism  Power transmission  Furrow opener  No of furrow opener  Size of fertilizer shaft (mm)  Seed box capacity (cm3)  Fertilizer box capacity (cm3)  Weight (kg)  Power requirement(hp/KW) | :      1960-2310  :      970-1560  :      1070-1350  :      Fluted roller  :      Adjustable opening with agitator  :       Chain and sprockets  :       Inverted T -type  :       9-13  :      20-22.3  :      66241-10308  :      63310-10141  :      150- 220  :      35/26.25, tractor |
| **Uses:**    Zero-till-drills are used for sowing wheat crop in unprepared field after harvesting of paddy. It saves Rs 2000-3000 per hectare, 20-30 time and labour. It also saves one pre-irrigation.    **Cost of Machine : Rs.35,000/-** | |