Setting Procedure of Seed-cum-Fertilizer Drill

How to set the tynes?

- Keep the seed drill on a fairly level ground.
- Make sure all the tynes are set at the same level.
- The tynes can be adjusted to the same level simply by moving them up or down through 'U' clamps.
- The desired row to row spacing can also be adjusted by sliding tynes on the axle to the left or right by loosening the 'U' clamps .

Calibration of Seed Drill

1 Measure the width of the seed drill by placing one end of measuring tape at middle of first tyne and other at middle of last tyne and note the width in a note pad. Add 20cm (row to row spacing) to the width of seed drill to arrive at effective width of seed drill (or multiply no. of tynes by row spacing to arrive at effctive width of seed drill).

2 Adjust the seed metering indicator in the appropriate delivery notch. The major changes in the seed rate are achieved by changing the seed rate gear.

3 Take the seed pipes out from the boot of the furrow openers and tie a poly bag at the end of each outlet. Before tying up polybags make sure that seed flow has started. This can be attained either by rotating the drive wheel manually, keeping the drill in up-stadning position or by moving the drill from a point 4-5 feet behind the marked starting point.

4 In case of flutted roller type/ groove roller type mechanism fill the seed box atleast up to a level so that the seed metering system is fully covered with seed while operating it. For inclined plate metering system fill the seed in each hopper to about 1/3 to 1/2 of the inclined plate to prevent over dropping of seeds. The seed rate can also be varied in inclined plate type by adjusting the inclination of seed box through grooved blades attached downside (6-8 holes). For example , seed box adjusted at third and fourth hole from downward end of grooved blade will drop rice seeds at approximately 10 and 8 kg per acre respectively.

5 Measure 20 m distance starting from the front end of either back or front set of furrow opener and mark the point where the same set of furrow touches 20m distance.

6 Run the tractor in a straight line to cover 20 m distance. Drive the tractor slowly (limited to 3-5 km/hr.).

7 Keep checking whether the seed is falling freely in the poly bags or not.

8 Measure the weight of seed collected in each bag separately and compare. The weight should be similar in all. If not, then check the metering system particularly the tongue (flutted roller), brush (inclined plate) and seed pipes again.

9

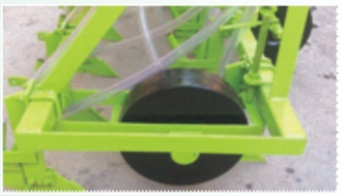
$$\text{Seed rate (kg/acre)} = \frac{4000 \times \text{Total weight of seed (g)}}{\text{Effective width of seed drill (m)} \times 20\text{m} \times 1000}$$

10 If this seed rate is not equal to the desired seed rate then go to Step 2 and change the seed rate setting accordingly and follow the full procedure again till the desired rate is achieved.

* Fertilizer calibration can also be done in a similar way.

How to set the seeding depth?

- Keep the seed drill on a fairly level ground.
- Measure the gap between ground surface and lower surface of depth control wheel. For example, it should be 2-3 cm for DSR.
- Adjust the depth with the help of depth adjusting screw. Tighten the screw to increase the depth and vice-versa. Also make sure that both depth setting wheels are at same level from the ground.



How to balance the seed drill properly?

- All front and rear tynes must be at the same level. This can be attained by adjusting the length of top link. Also the drill should be at same level (balanced) from left and right. This can easily be adjusted through setting side arms/links of three point linkage before starting actual operation in the field.

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