

# Don't Make a Mistake-CALIBRATE!!!

- 1) Read your drill's operators manual to learn where the adjustments for leveling, seed depth, and seeding rate are located.
- 2) Ensure that seed tubes are not blocked by spraying them out with an air hose and running a wire through them. **DO NOT SKIP THIS STEP!!!**
- 3) Use the "Seeding Rate Chart" on the drill to determine the initial drill setting and set the drill accordingly.
- 4) Select the proper gear box setting or drive gear for the desired target seeding rate based on the manual.
- 5) Place a small amount of seed above each opening in the drill box.
- 6) Lower the drill to engage the seeding mechanism.
- 7) Turn the seeding mechanism until seed comes out. Make sure that seed is coming out of each disk opener.
- 8) Disconnect three to five seed tubes from the disk openers.
- 9) Place and secure a collection container on each seed tube. A sandwich bag secured with a rubber band works well.
- 10) Pull the drill 150 feet OR turn the drive wheel the number of revolutions it would take to travel 150 feet.
  - a. Revolutions can be determined by using the following formula:  $\text{Number of Revolutions} = 150 / (3.14 \times \text{Diameter of the Drive Wheel in feet})$ .
- 11) Carefully remove collection containers.
- 12) Tare the scale for an empty collection container and then weigh and record in grams each collection container with the seed in it.
- 13) Add the seed weight for each collection container together and divide by the number of seed drop tubes collected to get the AVERAGE weight per disk opener.
- 14) Compare the AVERAGE weight per disk opener to the grams of seed/disk opener found in Table 1 for the desired seeding rate and row spacing.
  - a. If the collected weight is within 10% of the target weight found in Table 1, then you are finished.
  - b. If the collected weight is more than 10% different than the target weight found in Table 1, repeat steps 7 to 12 after adjusting seeding rate setting on drill.

**Items Needed to Calibrate Drill:**

1. Tape measure (150 feet)
2. Flags to mark stopping and starting points
3. Gram scale with 0.1 gram accuracy
4. Plastic sandwich bags
5. Rubber bands

Table 1. Grams of seed to catch per disk opener in 150 feet for given combinations of disk opener width (inches) and seeding rate (pounds/acre).

| Distance between Disk Openers | Seeding Rate in pounds/acre                    |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
|-------------------------------|--|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|
|                               | 2  | 4   | 6   | 8   | 10   | 12   | 14   | 16   | 18   | 20   | 25   | 30   | 35   | 40   | 50   | 60   | 80   | 90   | 100   | 120   | 140   | 160   | 180   |
| inches                        | grams of seed/disk opener to catch in 150 feet |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |
| 6                             | 1.6  | 3.1 | 4.7 | 6.3 | 7.8  | 9.4  | 10.9 | 12.5 | 14.1 | 15.6 | 19.5 | 23.5 | 27.4 | 31.3 | 39.1 | 46.9 | 62.5 | 70.4 | 78.2  | 93.8  | 109.4 | 125.1 | 140.7 |
| 7                             | 1.8  | 3.6 | 5.5 | 7.3 | 9.1  | 10.9 | 12.8 | 14.6 | 16.4 | 18.2 | 22.8 | 27.3 | 31.9 | 36.5 | 45.6 | 54.7 | 72.9 | 82.0 | 91.1  | 109.4 | 127.6 | 145.8 | 164.1 |
| 7.5                           | 2.0  | 3.9 | 5.9 | 7.8 | 9.8  | 11.7 | 13.7 | 15.6 | 17.6 | 19.5 | 24.4 | 29.3 | 34.2 | 39.1 | 48.9 | 58.6 | 78.2 | 87.9 | 97.7  | 117.3 | 136.8 | 156.3 | 175.9 |
| 8                             | 2.1  | 4.2 | 6.3 | 8.3 | 10.4 | 12.5 | 14.6 | 16.7 | 18.8 | 20.9 | 26.1 | 31.3 | 36.5 | 41.7 | 52.1 | 62.6 | 83.4 | 93.8 | 104.3 | 125.1 | 146.0 | 166.8 | 187.7 |

A YouTube video on grain drill calibration can be viewed on the KYForages YouTube Channel at <https://www.youtube.com/c/KYForages>