Grain drill calibration is a critical yet often ignored planting practice. Neglecting to calibrate your drill will result in thin stands and increased weed pressure, while high seeding rates will add unnecessary seed costs to the operation.

**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
6. Screwdriver
7. Pliers
8. Air hose

**STEP 1:** Make sure seed tubes are clear using an air hose.

**STEP 2:** Determine number of times to turn drive wheel for 150 ft of drill travel.

**STEP 3:** Disconnect seed tubes and place bags on tubes using rubber bands.

**STEP 4:**

Using the table below, determine grams of seed to catch per disk opener. See example below.

| Distance between disk openers (inches) | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 25 | 30 | 35 | 40 | 50 | 60 | 80 | 90 | 100 | 120 | 140 | 160 | 180 |
|----------------------------------------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Seeding rate in pounds/acre            |   |   |   |   | 2  | 4  | 6  | 8  | 10 | 12 | 15 | 18 | 22 | 25 | 30 | 35 | 40 | 50 | 60 | 80 | 90 | 100 | 120 |
| 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 | 17.1 | 18.6 | 20.1 | 21.6 | 23.1 | 24.6 | 26.1 | 27.6 | 29.1 | 30.6 | 32.1 | 33.6 |
| 7                                       | 1.8 | 3.6 | 5.5 | 7.3 | 9.1 | 10.9 | 12.8 | 14.6 | 16.4 | 18.2 | 20.0 | 21.8 | 23.6 | 25.4 | 27.2 | 29.0 | 30.8 | 32.6 | 34.4 | 36.2 | 38.0 | 39.8 |
| 7.5                                    | 2.0 | 3.9 | 5.8 | 7.7 | 9.5 | 11.4 | 13.2 | 15.1 | 16.9 | 18.7 | 20.5 | 22.3 | 24.1 | 25.9 | 27.7 | 29.5 | 31.3 | 33.1 | 34.9 | 36.7 | 38.5 | 40.3 |
| 8                                       | 2.1 | 4.2 | 6.3 | 8.3 | 10.4 | 12.5 | 14.6 | 16.7 | 18.8 | 20.9 | 23.0 | 25.1 | 27.2 | 29.3 | 31.4 | 33.5 | 35.6 | 37.7 | 39.8 | 41.9 | 44.0 | 46.1 |

**STEP 5:** Turn drive wheel to collect seed.

**STEP 6:** Weigh seed.

Grain drill calibration is a critical yet often ignored part of successful forage establishment and pasture renovation. Planting lower seed rates than recommended can result in thin stands susceptible to weed encroachment. Planting more than the recommended seeding rate is undesirable due to the high seed cost of improved forage varieties. Most farmers just use the seeding chart already on their grain drill. As drills wear, and tires and cogs get replaced, actual seeding rates can vary significantly from seeding charts found on drills.

We have designed a simple and straightforward calibration method that can be applied across a wide range of grain drill types and manufacturers. This method is centered on a pre-made chart that allows producers to determine the quantity of seed to catch for each disk opener for a desired seeding rate. This minimizes the need for producers to carry out detailed mathematical calculations.

In order to calibrate the drill using this method, you will need the following items: a container to catch the seed, tape measure to determine the circumference of the drive wheel and the disk opener spacing, flags to mark stopping and starting points for in-field calibration, a floor or bottle jack for stationary calibration and a gram scale with 0.1-gram accuracy.

This procedure and chart were made into a decal that can be affixed to grain drills. This decal has been distributed to counties and soil and water conservation districts in Kentucky that have drills that are loaned or rented. A copy of the procedure/chart and an informational video can be found on the UK Master Grazer web page (grazer.ca.uky.edu).

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