



Seed or sowing charts provided by drill manufacturers are a great place to start to ensure the correct LBS get seeded. However, some drills may not be as accurate due to age and/or wear and tear. In most cases, only a few species are listed on the chart, leading to questions about calibrating the drill for seeds not listed or when mixes are used. **The above graphic is only a suggestion, helping identify seeds with like size and density.** Besides wheel slippage, other variables can affect seed flow and seeding rates – like seed treatments and coatings.

Note: native seeds, forbs, and wildflowers work best when placed in the “native grass” box where applicable. PLS rates will need to be calculated using the germination and purity % on the seed tag.

Seed delivery systems in drills are not as precise as planters that meter seed through singulation. For this reason, it makes sense to regularly calibrate drills and seeders. One method is to seed a known area and weigh the amount of seed used. This takes vacuuming the drill afterwards to calculate LBS of seed sown. Another way is by simulating actual seeding, but with the drill stationary and raised to collect LBS of seeds falling through the seed delivery tubes (with buckets, small bags, or tarps). This method calls for totaling the amount of drive wheel rotations needed to cover the fixed area (and then replicating those rotations to produce the amount of seed) that would be sown if it was actually sowing seed. The second exercise also detects if any drop tubes are plugged or not working properly.

When planting two or more species per planter box, calibrate each species individually OR add the index settings for the quantity of each seed being sown. Keep in mind, mixtures usually pack denser so start with the index setting for the largest seed in the mix and adjust accordingly.

34% coated legume seeds will weigh approximately 1/3 more than uncoated seed. Several Midwestern universities and equipment manufacturers have published research showing that coated seed flows faster through seeding equipment versus uncoated, with several findings showing significant variability (> 40% higher seeding rates). Coated grass seed (used primarily on “fluffy” grasses) typically increases the bulk density, resulting in seed moving through equipment faster (but not as variable as with legumes). Increased density = quicker seed movement.

Monitor seeding depth, especially when plantings first begin. Seeding depth should be approximately 3-5 times the diameter of the seeds being sown.

OTHER RESOURCES THAT MAY HELP:

- From Purdue: <https://www.extension.purdue.edu/extmedia/ABE/ABE-126-W.pdf>
- From Penn State: <https://extension.psu.edu/calibration-of-grain-seed-drills>
- From NRCS: https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/wapmctn6331.pdf
- From Virginia Tech: <http://pubs.ext.vt.edu/418/418-121/418-121.html>
- From Arkansas: <https://www.uaex.edu/publications/pdf/FSA-3111.pdf>