

Drill Seeding

Three Important Components in Drilling

- Seed metering
- Seeding depth
- Seed covering

Seed Metering

Manufacturers Guide Version

- Use charts for initial settings
- only a guide
- fill, plant known area, refill
- quick, easy, accuracy limited

Drill Calibration

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- Determine “effective drilling distance?”
 - Mark drive wheel and spot in field
 - drive at least 10 revolutions
 - measure distance driven and divide by number of revolutions
- Determine drill spacing in FEET
 - divide inch spacing by 12

Drill Calibration

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- Determine feet driven to cover one acre
 - divide 43,560 by drill spacing
- Determine desired number of seed/acre
 - use tables to obtain seed/pound
 - multiply seed/pound by pounds/acre
- Determine seed/foot of drill row
 - divide seed/acre by feet driven per acre

Drill Calibration

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- Place containers under each metering cup
- Drive specified distance using “effective drilling distance” OR
- Turn drive wheel by hand for specified revolutions

Drill Calibration

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- Count seeds and divide by distance driven or obtained by turning wheel
- Compare to desired seed/foot figure
- Adjust and repeat count as necessary

Rice Example

- Effective drilling distance 8 feet/revolution
- Drill spacing 7.5 inches or .625 feet
- $43,560 / .625 = 69696$ feet/acre
- Rice seed 18,923 seed/pound
- Desire 90 pounds per acre
 - $90 \times 18923 = 1,703,070$ seed/acre

Rice Example (cont.)

- $1,703,070 / 69696 = 24$ seed per foot
- Drive or turn wheel 5 revolutions
 - $5 \times 8 = 40$ feet
- $40 \text{ ft} \times 24 \text{ seed/ft} = 960$ seed (.05 lbs)

Seeding Depth

- Best planters use gauge wheels and down pressure
- No-till drills may use coulters ahead of openers
- Field conditions will influence choices

Seed Covering

- Many combinations of soil movement and compaction devices
- Soil movement - disks to chains
- Soil compaction
 - rubber or steel wheeled
 - single or double wheeled
 - staggered or parallel
- compact soil only enough to get good seed to soil contact