

## 2011 Beck's Plantability Report

3-4-11 Denny Cobb

### Objective

To secure best planter settings/recommendations for 4 grade sizes and 6 seed weights (seeds per pound or spp) from the major planter manufacturers so plantability opportunities (target populations and accuracy of drop) are optimized. Purpose is to maximize planting effectiveness with Beck's seed and customer's planters.

### Procedure

Planter Populations: 31,000 and 36,000 target (planted) populations

Planter Speeds: 5 and 6.5 MPH

Planters: Finger pickup and vacuum systems from 5 companies; John Deere, Kinze, Case New Holland (CNH), Great Plains, and AGCO.

Seed: MR with 1270 and 1356 spp; MF with 1404 and 1633 spp; AP with 1702 spp; and PL with 1163 spp. This seed has Poncho 1250 and Votivo on it as well as appropriate polymers, etc. Seed contains all the same coating components as other Beck's seed to be used this spring.

Lubricants: No talc, graphite, nor combinations of the two were added to the seed during the test runs. After the runs were conducted, lubricants were added to check for flowability. Not adding lubricants during the test runs gave us a uniform baseline results for all systems.

### Results

Written results are noted by planter manufacturer.

## John Deere CCS Vacuum Planters

1. Make sure tank pressures are set for the proper seed weight.
  - a. 2000 to 1200 spp (40 to 65# bag weight) set @ 12".
  - b. 1200 spp & less (65# bag weight and greater) set @14".
2. Make sure the meter discharge elbow is the right one for the size of seed being planted. Heavily treated, higher test weight seed may need the optional elbow with wider holes for improved flowability into the seed hopper.
3. Use adequate amounts of talc, very well distributed and very well mixed! At a minimum, double the rate of talc. Make sure unused talc is sealed in an airtight container. A small amount of graphite (20%) may need to be considered if flowability concerns are not corrected with higher talc rates.
4. "PreLube" seed tubes by blowing talc through them.
5. Vacuum settings at the seed meter need to be 18 to 24" with heavier seed.

## Kinze ASD Planters

1. "PreLube" the planter by mixing 6 bottles of graphite with 4 units of seed. Do this first and then add remaining seed with recommended amounts of graphite.
2. Tank pressures will need to be 20".
3. Seed meters require 18 to 20" of vacuum.
4. Set proper brush settings as to seed size being used.
5. In extremely high humidity conditions, talc may need to be added, while keeping graphite at recommended rates.

## Case New Holland ASM Planters

1. Slower (5 MPH) planter speeds improve seeding accuracy.
2. The fan must operate at 3500 RPM to adequately pressurize the seed tank.
3. For seed less than 1200 spp (large MR & PL), see my first handout for specific setting recommendations.
4. CNH lubricant must be well mixed on all seeds. Contains 80% talc, 20% graphite. Adjust amount of lubricant used to environmental conditions that exist.

## AGCO Planters

1. Because of higher seed density weights and greater amounts of treatment, talc needs to be used to improve flowability. Recommended rates of at least 1 cup of talc per unit of seed is suggested. Absolutely no graphite in AGCO planters.
2. Follow pressure setting recommendations. Our heavier seed will require 3.5 to 5" at the seed disk.

## Great Plains Air Pro Planters

1. "PreLubing" the entire planting system is very important for sustained flowability. Use 5 cups of E-Z Glide to accomplish this initially. Then add 1 cup or more of E-Z Glide per unit our seed.
2. See first handout for baffle and meter specifics.