Comparison of Soybean Seed Metering Techniques: Calibration. (A07-boyer134201-Oral)

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Abstract:

Most commercial grain drills used in large research plots utilize some form of fluted feed system. Obtaining uniform seed drop with this system has been difficult. Three grain drills were calibrated using traditional feed cups and a commercially available belt meter system to determine seeding rate variability due to the seed metering systems. Three soybean seed sizes and three seeding rates were used in the calibration of the grain drills at three different Purdue Ag Centers. To reduce the amount of seed needed for each calibration and to reduce clean-out time, tubes were installed in the seed hoppers of the drills. Seed was collected over a distance of 300 feet from each metering unit for each run using pre-numbered plastic bags on the seed tubes. The weight of the seed collected for each row was recorded for each metering system, seed size and seeding rate. Seeding rates varied +/-20 percent with the fluted metering system and +/- 1.5 percent with the belt meter system.

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