

# Planter Unit Repair and Calibration for Corn

Steve D. Ruhl, Agriculture and Natural Resources Extension Agent

## Objective

To evaluate the effect of calibration and repair of planter units on yields of corn.

## Background

Cooperator:	Tom Weiler	Variety:	Pioneer 34B23
County:	Morrow	Fertilizer:	250 lb/A 0-0-60 on March 29
Nearest Town:	Chesterville		175 lb/A NH <sub>3</sub> on March 29
Soil Type:	Sloan silty clay loam		200 lb/A 19-19-19 at planting
Drainage:	Systematic	Herbicide:	PRE: Define 14 oz/A, Balance 1.5 oz/A
Previous Crop:	Soybeans		POST: Distinct 4 oz/A + AMS
Tillage:	Conventional	Planting Date:	April 27, 2001
Soil Test:	pH 7.0, P 23 ppm, K 154 ppm	Seeding Rate:	30,200 seeds/A
		Row Spacing:	30 inches
		Harvest Date:	October 22, 2001

## Methods

Three seeding units were removed from a John Deere 7000 six-row planter. The units were calibrated, and any needed repairs and adjustments were made. The calibrated units were compared to the non-calibrated units in a split-planter study. The treatments were replicated four times, and the entire six rows were harvested and measured using a weigh wagon. The length of the plots was 850 feet, and the harvested areas were approximately 3/10 of one acre. The speed of planting was 5 mph.

## Results

**Table 1. Corn Yield.<sup>1</sup>**

Treatment	Yield (bu/A)
Calibrated, repaired and adjusted units	205.8 a
Other units	193.6 b
LSD (0.05)	11.4
F	11.6
CV	2.50%

<sup>1</sup> Means followed by the same letter are not significantly different.

## **Summary and Notes**

The results of this study show that the calibration, repair, and adjustment of the planting units of the John Deere 7000 planter did affect yield. This is the third study in two years that showed a significant increase in yield. This study supports the theory that a uniform stand is important in maximizing corn yields.

## **Acknowledgment**

The author would like to thank Pioneer Hybrids for calibrating and repairing the three planter units and providing the seed for the study.

For additional information, contact:

Steve Ruhl  
The Ohio State University Extension  
ruhl.1@osu.edu