

## THE VALUE OF PROPER PLANTER SETTINGS

### TRIAL OVERVIEW

- Previous work at the Learning Center has shown the importance of even emergence in corn:
  - Impact of Uneven Emergence in Corn.<sup>1</sup>
  - Uneven Emergence in Corn.<sup>2</sup>
- Various planter attachments and settings can affect seed placement, seed/soil contact, and the quality of the seedbed. These factors can impact the evenness of seedling emergence and stand establishment.

### RESEARCH OBJECTIVE

- This trial was designed to measure the yield impact of seed firmers and properly-set row cleaners.

Location	Soil	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield/Acre	Planting Rate/Acre
Monmouth, IL	Silt loam	Corn	No-till	05/17/2017	10/17/2017	240+ bu/acre	36,000 seeds/acre

#### SITE NOTES:

- Four treatments were tested:
  - Properly-set row cleaners with seed firmers.
  - Properly-set row cleaners without seed firmers.
  - Improperly-set row cleaners (not enough pressure) with seed firmers.
  - Improperly-set row cleaners (not enough pressure) without seed firmers.
- The trial was replicated twice.

### UNDERSTANDING THE RESULTS

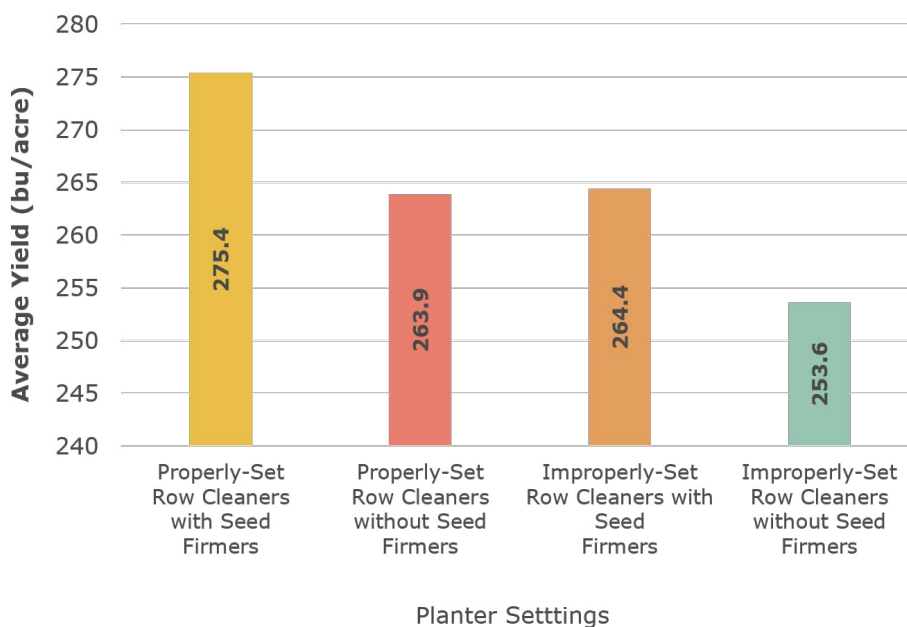


Figure 1. Value of Proper Planter Settings

- In this trial, each missing component resulted in a loss of approximately 10 bu/acre (Figure 1).
- Both components combined resulted in a loss of approximately 20 bu/acre (Figure 1).
- Visual differences in plant stand and height were apparent throughout the season (Figures 2 and 3).



Figure 2. Improperly-set row cleaners without seed firmers (left) and properly-set row cleaners with seed firmers (right).



Figure 3. Improperly-set row cleaners without seed firmers (left) and properly-set row cleaners with seed firmers (right).

## WHAT DOES THIS MEAN FOR YOUR FARM?

- Accurate seed placement, good seed/soil contact, and a clean seed bed are important factors in enabling corn seedlings to establish quickly and begin growing vigorously.
- Attachments such as seed firmers can help improve seed/soil contact, leading to better establishment, even emergence, and potentially higher yields.
- Properly-set row cleaners can also provide an environment where seedlings can emerge quickly and evenly. This can have a positive impact on yield potential.

### SOURCES

- 1 Impact of Uneven Emergence in Corn. 2016. <https://monsanto.com/app/uploads/2017/05/impact-uneven-emergence-corn.pdf>
- 2 Uneven Emergence in Corn. 2016. <https://vimeo.com/214841338>



### LEGAL STATEMENT

For additional agronomic information, please contact your local brand representative.

Developed in partnership with Technology Development & Agronomy by Monsanto. The information discussed in this report is from a single-site demonstration trial. This informational piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

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