

Managing Early-Planted Soybean

2011-2012

Rationale

- Small plot research from several land grant universities and DuPont Pioneer indicates that there is a likely advantage to planting soybean in the last half of April or early May when compared to mid May or later in Illinois and Indiana.
- **Advantages to early-planted soybean**
 - Increased seasonal canopy photosynthesis
 - Greater number of main stem nodes
 - Longer reproductive growth

Objectives

- Evaluate yield response when soybean is planted two or three weeks earlier (mid April to early May) than the current cultural practice at locations across Illinois and Indiana.
- Investigate a plausible soybean varietal maturity and planting time interaction.

Heartland Agronomy Research

58 Locations in
2011 & 2012



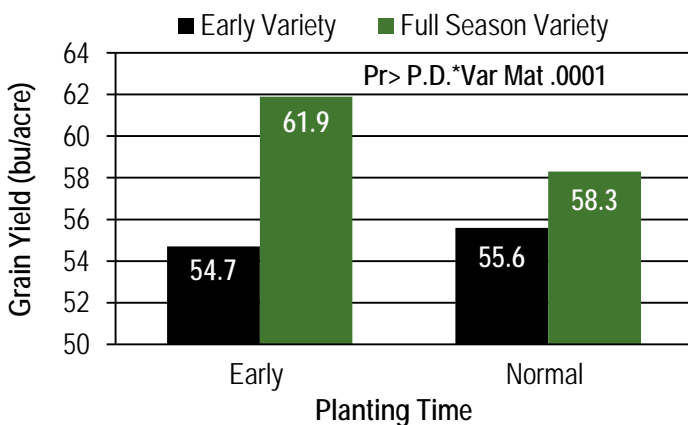
Study Description

- Yields of early and full-season soybean varieties were compared at early and normal planting timings at 58 locations in IL and IN in 2011 and 2012.
- Two soybean varieties were planted at two timings (early and normal) at each location. Specific planting dates and variety pairs varied by location.

Results

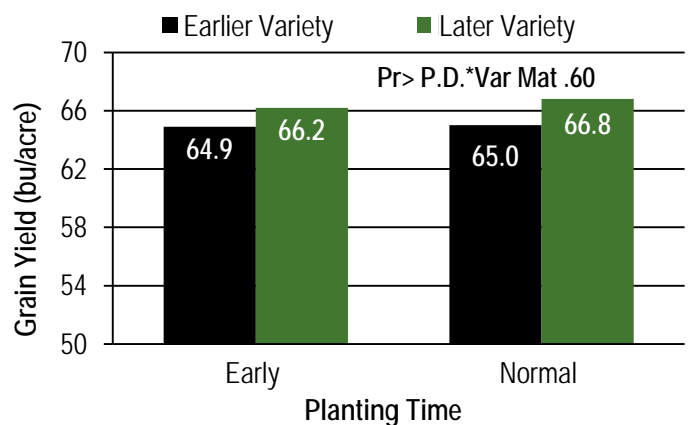
- Among 37 testing locations where variety pairs differed by an average of one full maturity group, a significant planting time by maturity interaction was observed. The full-season adapted varieties increased their grain yield when planted at an earlier than normal time, while the early varieties yielded similarly between planting timings.
- At 21 testing locations where variety pairs differed less in maturity rating (average of 0.5 difference in maturity group), no such interaction was observed. Both varieties responded similarly to planting timing.
- **Action:** Planting a full-season adapted Pioneer® brand soybean variety at an earlier than normal time extends the duration of reproductive growth; this extension in reproductive growth allows soybean to take advantage of optimum conditions during the growing season whenever they occur, and will often accumulate into the highest grain yields.

Locations with full maturity group difference between varieties



Influence of variety maturity, at early (mid April to early May) and normal (late May) planting times on soybean grain yield at 37 IL & IN locations in 2011 and 2012.

Locations with 0.5 maturity group difference between varieties



Influence of variety maturity, early (mid April to early May) and normal (late May) planting times on soybean grain yield at 21 IL & IN locations in 2011 and 2012.

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