



CORN ALTERNATE ROW POPULATION DEMONSTRATION

PURPOSE

Investigate potential impacts of changing row by row population on plant yield and agronomics.

LOCATION	PLANTING DATE	PRODUCTS	HARVEST DATE	TILLAGE	PREVIOUS CROP
Posey Co, IN	5/1/18	17DP387 Brand Blend	10/26/2018	Conventional	Soybeans

METHODS

Site treatments were replicated 2X.¹

Alternating 6 row strips of a static 34K planting population and 6 rows of alternate row strips of 28K & 40K.

Both treatments “averaged” 34K plants planted.

Yields were weighed with a calibrated yield monitor.

DETAILS OBSERVED

- Emerged populations closely followed planting populations.
- 17DP387 Brand Blend is a flex ear product with upright leaf architecture.
- Ear sizes flexed with the different row population.
- There was little difference in standability as all treatments had good standability.
- There was a spike in yield in Rep 1 of the Alternate row population which cannot be explained.
- There was some water damage across both treatments equally in Rep 2 accounting for slightly lower yields.

SUMMARY

- The Alternate row population treatment increased yield on average by 16 bu/a across both replications.
- Alternating row populations could influence plant to plant reaction to density thereby influencing both plant yield and/or agronomic characteristics.
- There was enough variation between replications that further trials are needed.

RESULTS

	BU/A	
	STATIC RATE	ALTERNATE ROW
Rep 1	254.0	296.0
Rep 2	248.0	239.0
Average	251.0	267.0

RECOMMENDATIONS

- Opportunities for increasing/decreasing nutrient applications based on in-row population may exist which could further increase production
- Specific corn product adaption to multi row populations needs to be considered with respect to population response
- More data is needed to confirm results of 2018



Monitor screen shot of planting Alternate Row Population Treatment

PLANTING METHOD FOR ALTERNATE ROW PASS	
Row 1	40K row population
Row 2	28K row population
Row 3	40K row population
Row 4	28K row population
Row 5	40K row population
Row 6	28K row population