



TECH Tips

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Research and Technology Field Results- Corn and Soybean Planting Date

Objectives:

- Initial Objective: The initial objective of the plot was to investigate the effects of early planting dates on corn and soybean development compared to standard dates. However, the mid-April snowstorm at Bath eliminated the possibility of early planting dates.
- Final Objective: The final objective of the plot was to demonstrate whether delays in planting data have a negative effect on corn or soybean plant development and yield.

Treatments Tested and Rates:

- Untreated Plots- No Starter Fertilizer
- 0, 3, 5, 7.5, 10 and 12 GPA starter fertilizer with FurrowJet units
- O-Phos starter was used to limit effects to added phosphorus only, without the placing streams under and either side of the main row

12-18-18 (AGTEG_BATH_18_SOY_CORN_PLANTDATE)

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Agtegra Cooperative

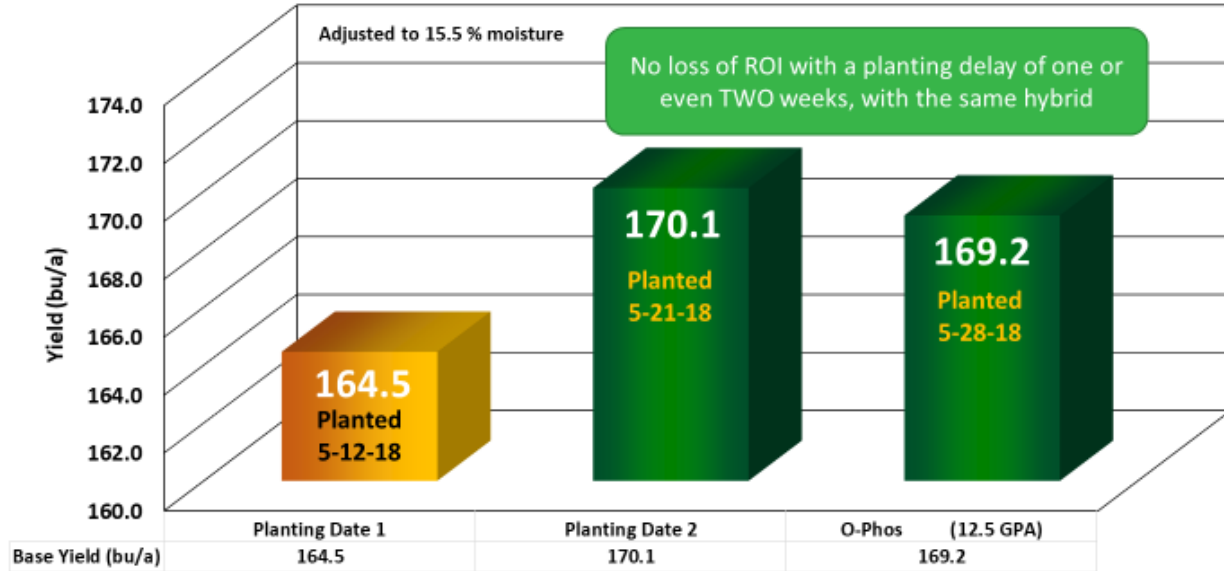
Trial ID: AGTEG_BATH_18_SOY_CORN_PLANTDATE		Location: Agtegra- Bath		Trial Year: 2018	
Protocol ID: AGTEG18SPCORNISOY		Investigator: Brad Ruden			
Project ID:		Study Director:			
Sponsor Contact:					

Trt No.	Treatment Type Name	Form Conc	Form Unit	Form Type	Rate	Growth Unit	Stage	Appl Code	Comment 1	Rep 1	Notes
1	FERT Soy Planting Date 1- Jumper	23 %	P2O5	SN	2 gal/a		ATPLAN A		5-19-18	101	
2	FERT Soy Planting Date 2- Jumper	23 %	P2O5	SN	2 gal/a		ATPLAN B		5-28-18	102	
3	FERT Soy Planting Date 3- Jumper	23 %	P2O5	SN	2 gal/a		ATPLAN C		6-4-18	103	
4	FERT Corn Planting Date 1- Jumper	23 %	P2O5	SN	5 gal/a		ATPLAN D		5-12-18	104	
5	FERT Corn Planting Date 2- Jumper	23 %	P2O5	SN	5 gal/a		ATPLAN E		5-21-18	105	
6	FERT Corn Planting Date 3- Jumper	23 %	P2O5	SN	5 gal/a		ATPLAN F		5-28-18	106	

Sort Order: Treatment

Results (Corn Planting Date):

Research and Technology Plots- Corn Planting Date

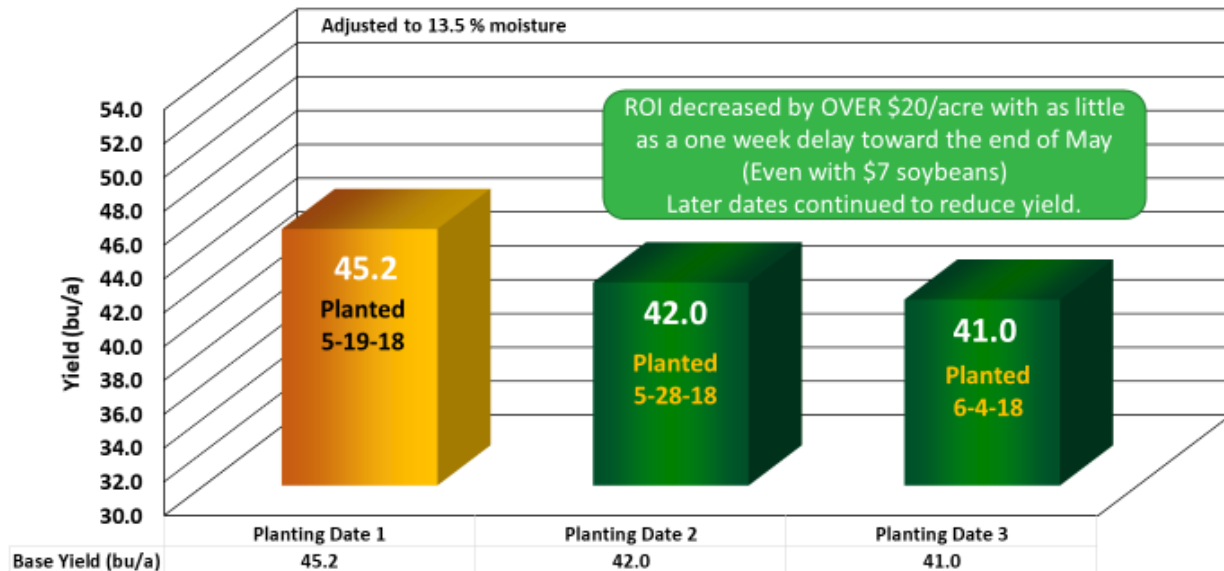


Soil Test Nutrients	Fall 2017		
Nitrogen	24	Zinc	2.56
Phosphorus	13	Calcium	3693
Potassium	300	pH	7.3
Sulfur	120 +360	CEC	24.4

- Fertilizer Applied: 150# MAP + 50# potash/acre + Remain treated urea to 200 # N/ acre (soil test + fertilizer)
- Corn Hybrid: DKC 47-47; Population: 34000 seeds/acre
- All plots treated with 5 GPA Jumper Starter Fertilizer



Research and Technology Plots- Soybean Planting Date



Soil Test Nutrients	Fall 2017		
Nitrogen	24	Zinc	2.56
Phosphorus	13	Calcium	3693
Potassium	300	pH	7.3
Sulfur	120 +360	CEC	24.4

- Fertilizer Applied: 150# MAP + 50# potash/acre
- Soybean Variety: AG11X8; Population: 150000 seeds/acre
- All plots treated with 2 GPA Jumper Starter Fertilizer



Key Observations 2018:

- **Observations on Corn plots:**
 - **Delaying planting on corn did not appear to hurt yield.** In fact, yield was increased with the later planting dates (likely from very dry conditions at the plot, and better timeliness to moisture)
 - Even with a **two-week planting delay, corn yield was NOT reduced** significantly
 - **There was no need to change corn hybrid to maintain yield**, even with a two-week planting delay
 - **High growing degree day (GDD) accumulation in May** likely affected results, limiting differences among the corn plots
- **Observations on Soybean plots:**
 - Conversely, as planting was delayed in soybeans, yield continued to decrease
 - **Even a one-week delay in planting date cost greater than 3 bu in final yield-** a very significant reduction
 - **Soybean appears to require the full season for maximum ROI** (daylength/light requirement) whereas corn planting can be delayed without significant loss, especially if higher GDU accumulation is experienced.

2018 Plot Setup Information:

- Plot located at the Agtegra Bath location in the Research and Technology demonstration plots
- Corn Hybrid: DKC 47-47 planted at 34,000 plants per acre in 30" rows
- Soybean Variety: AG11X8, planted at 150000 seeds per acre
- Plot Size: 20 x 140 ft. single replicate demo plot

Notes:

This plot is planned to be expanded and repeated with efforts to attain very early planting dates as well as later dates.