



TECH Tips

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Research and Technology Field Results- Corn and Soybean FurrowJet

Objectives:

- Demonstrate the value of precision placement of higher starter fertilizer rates possible with the use of FurrowJet units from Precision Planting

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_CORN_FURROWJET)

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Agtegra Cooperative

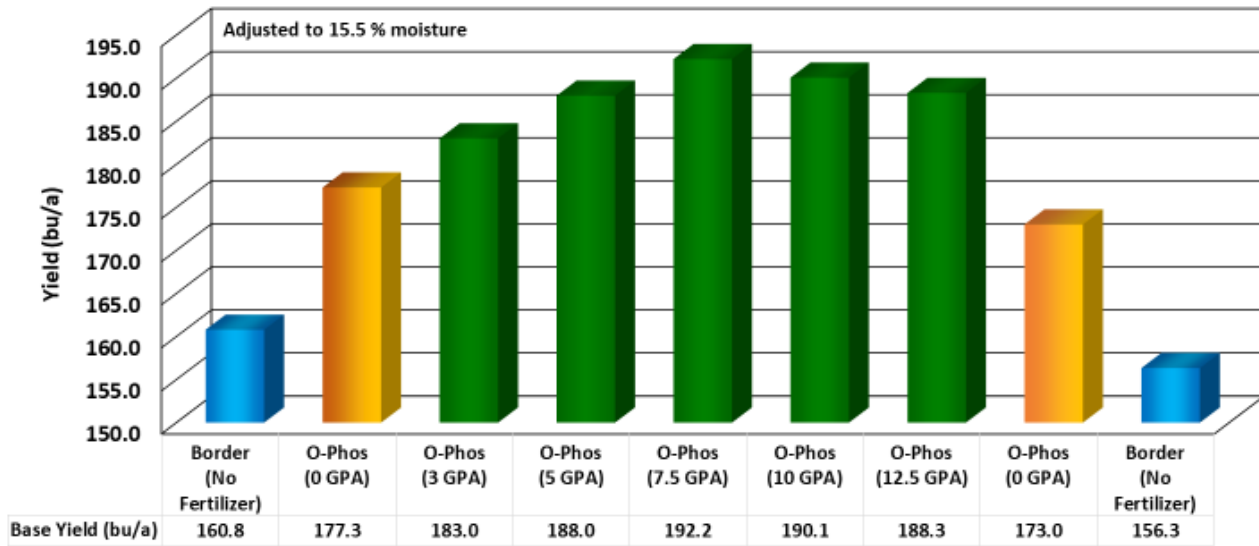
Trial ID: AGTEG_BATH_18_CORN_FURROWJET			Location: Agtegra- Bath			Trial Year: 2018		
Protocol ID: AGTEG18SPCORN			Investigator: Brad Ruden					
Project ID:			Study Director: Dustin Christofferson & Alexa Olson					
Sponsor Contact:								

Trt No.	Treatment Type	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Growth Unit	Stage	Appl Code	Comment 1	Rep 1	Notes
1	FERT	Untreated Border				0 gal/a		ATPLAN	A	10 ft Border	101	
2	FERT	O-Phos	24 %	P2O5	SN	0 gal/a		ATPLAN	A	10 ft Plot	102	
3	FERT	O-Phos	24 %	P2O5	SN	3 gal/a		ATPLAN	A	20 ft Plot	103	
4	FERT	O-Phos	24 %	P2O5	SN	5 gal/a		ATPLAN	A	20 ft Plot	104	
5	FERT	O-Phos	24 %	P2O5	SN	7.5 gal/a		ATPLAN	A	20 ft Plot	105	
6	FERT	O-Phos	24 %	P2O5	SN	10 gal/a		ATPLAN	A	20 ft Plot	106	
7	FERT	O-Phos	24 %	P2O5	SN	12 gal/a		ATPLAN	A	20 ft Plot	107	
8	FERT	O-Phos	24 %	P2O5	SN	0 gal/a		ATPLAN	A	20 ft Plot	108	
9	FERT	Untreated Border				0 gal/a		ATPLAN	A	20 ft Border	109	

Sort Order: Treatment

Results (Corn FurrowJet Plot):

Research and Technology Plots- Corn FurrowJet

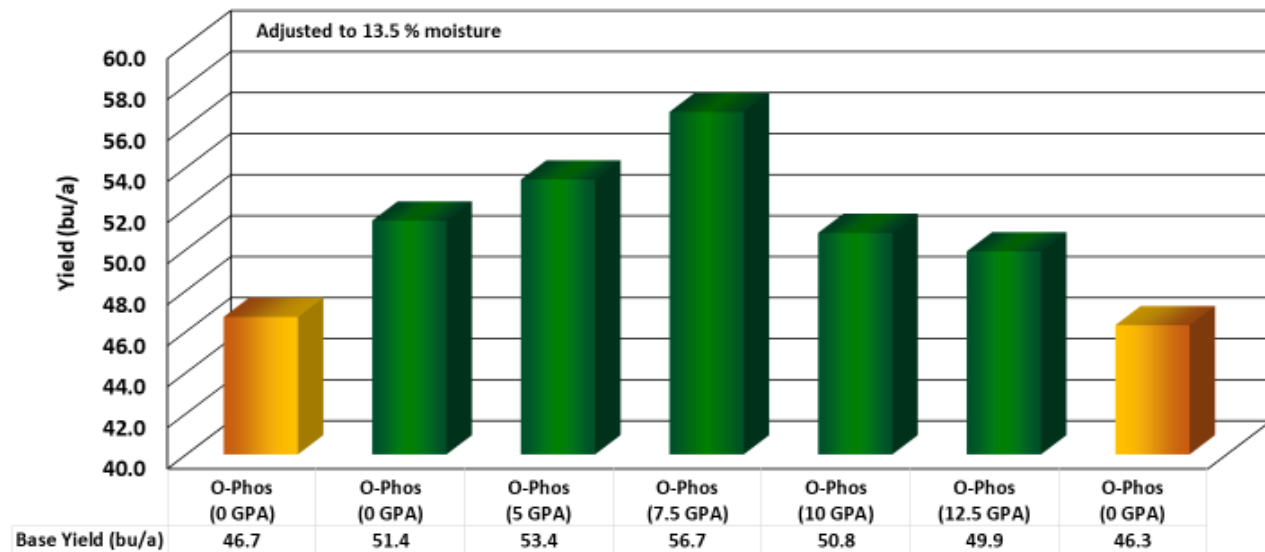


Soil Test Nutrients	Fall 2017		
Nitrogen	80	Zinc	1.80
Phosphorus	23	Calcium	4793
Potassium	278	pH	7.5
Sulfur	120 + 360	CEC	33.8

- Fertilizer Applied: 120# MAP + 267# RemainN treated urea
- Corn Hybrid: DKC 47-47; Population: 34000 seeds/acre
- Planted 5-24-18



Research and Technology Plots- Soybean FurrowJet



Soil Test Nutrients	Fall 2017		
Nitrogen	80	Zinc	1.80
Phosphorus	23	Calcium	4793
Potassium	278	pH	7.5
Sulfur	120 + 360	CEC	33.8

- Fertilizer Applied: 120# MAP
- Soybean Variety: AG11X8; Population: 150000 seeds/acre
- Planted 5-24-18



Key Observations 2018:

- Tested O-Phos at 0, 3, 5, 7.5, 10 and 12 GPA with FurrowJet placing streams under and either side of the main row
- **Observations on planting and handling:**
- FurrowJet units performed well at planting
- Emergence observations were not taken, but no large-scale differences were visually noted early in the season
- The highest fertilizer rates (12.5 GPA) did have plants looking “stressed” late in the day during driest periods of time
- It appears there is a peak fertilizer rate. In 2018, with SEVERE DROUGHT at the plot, that optimal rates were as low as 7.5 GPA for both corn and soybean.
- 2017 data was somewhat inconsistent, but showed higher optimal rates for maximum yield, especially in corn

2018 Plot Setup Information:

- Plot located at the Agtegra Bath location in the Research and Technology demonstration plots
- Variety: DKC 47-47 planted at 34,000 plants per acre in 30” rows
- Plots planted May 24, 2018
- Plot Size: 20 x 750 ft. single replicate demo plot