SCSB Quarterly Report

General Information
Principal Investigator(s) Name(s): Mark Freeman
Organization: University of Georgia
Date: 10/10/2018
Quarter: 2

Proposal Information
Title: Continued Evaluation of Agronomic Practices Associated with Early and Ultra-Late Soybean Production
Amount Expended to Date: Do not have an exact amount. Have emailed departmental accountant to get this info and will forward the information when I get it. We have changed financial system and can no longer see up to date financial info like in previous years.

Progress Assessment

Early System Soybean – Large Plot Variety Trials - The Midville and Athens, Ga Early System Soybean Variety Trial locations have been harvested. The Tifton location remains unharvested at this point. Yields were excellent in Midville and above average in Athens. Results shown below.

Soybean Management Strategies Following Auxin Herbicide Injury - (Non dicamba tolerant soybeans were planted and sprayed with reduced rates of dicamba to simulate off target movement) 2 Locations planted, Tifton, Ga; Midville, Ga. however, Tifton location was not harvested due to Hurricane Michael. Results from Midville location shown below.

Residue Management in Ultra-Late Soybeans – Soybeans were planted following corn at two locations, Midville, Ga and Plains, Ga. Multiple seeding rates (170,000 and 220,000 seed/ac) were planted into three different tillage practices (no-till drilled directly into corn stover, stover mowed then soybeans drilled, and corn residue harrowed multiple times with field cultivation then soybeans drilled.) Plots look excellent at both locations. The Midville location has been harvested and results shown below. The plains location has not been harvested yet due to wet weather but remains in the field and will be harvested if weather conditions improve.

Key Performance Indicators

KPI's stayedon track. All trials were planted even with adverse weather conditions during the planting season. Two trial locations were not harvested due to damage sustained from Hurricane Michael. All Midville and Athens trial locations were harvested.

Next Steps

Next steps are to disseminate data and determine appropriate research efforts for 2019.

Additional Information

Early System Soybean Variety Trial Location Yield Data:

Statewide:

Statistical Analysis		P=NS
Variety	Yield	
Asgrow 46X6	74.78	
Pioneer P47T36R	72.94	
Pioneer P48A60X	70.44	
SH 3814LL	66.87	
SH 4817LL	66.64	
		LSD = NS

The two locations analyzed separately –

Midville:

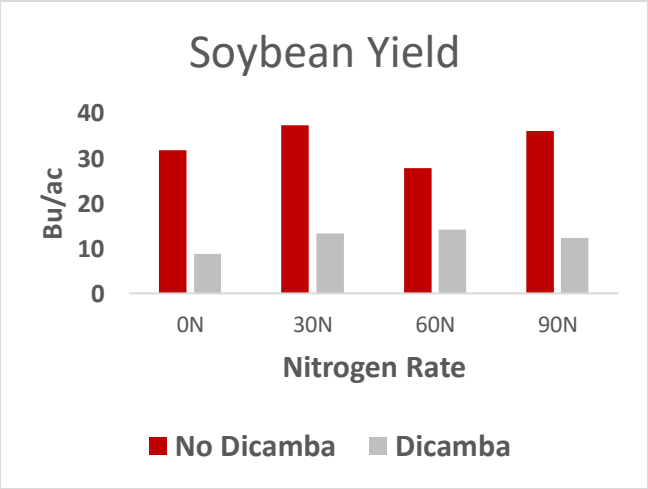
Statistical Analysis		p=0.0002
Variety	Yield	LSD Letter
Asgrow 46X6	86.08	A
Pioneer P47T36R	83.50	A
Pioneer P48A60X	83.18	A
SH 3814LL	74.14	B
SH 4817LL	71.46	B
		LSD = 4.39

Athens:

Statistical Analysis		p= NS
Variety	Yield	
Asgrow 46X6	63.51	
SH 3814LL	62.60	
Pioneer P47T36R	62.38	
SH 4817LL	61.83	
Pioneer P48A60X	57.71	
		LSD = NS

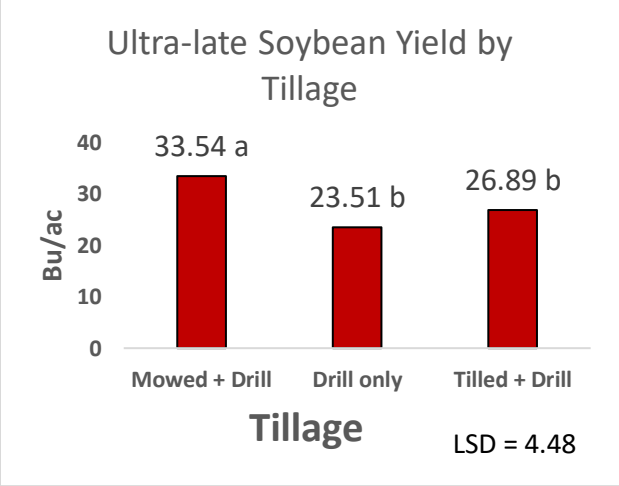
Soybean Management Strategies Following Auxin Herbicide Injury

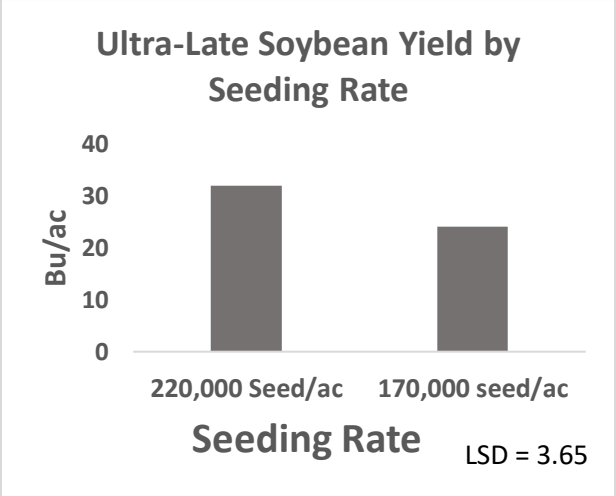
A 1/10th rate of dicamba (Engenia) was applied to appropriate plots during bloom stage. Following this, four nitrogen rates were applied to both dicamba and non dicamba applied plots. Over all treatments, the dicamba application caused a 63% yield reduction compared to plots that did not receive the dicamba. There were no statistical interactions for nitrogen rate and dicamba application. Nitrogen did not add any statistical yield increases for any treatments and at this point, nitrogen would not be recommended to growers who received an off target application of Dicamba.



Residue Management in Ultra-Late Soybeans

Soybeans were planted in the first week of August following field corn harvest. The trial was designed as a split block design to evaluate two factors; tillage and seeding rate. The two seeding rates that were used were 220,000 seed/ac and 170,000 plants per acre. Three tillage practices were used and included: No tillage seed drill directly into corn stover; corn stover mowed with a rotary mover then drilled; last harrowed multiple times and field cultivated prior to drill. Data showed no statistical interactions between tillage and seeding rate. However, the 220,000 seed/ac seeding rate was statistically higher in yield than the 170,000 seed/ac rate. Tillage also showed a statistical difference with the "mowed stover prior to planting" being statistically the highest yielding treatment.





Prior to submission, reports should be saved as a pdf document using the following naming convention; 2018Date(yrmoday)_(PI Last Name)_(Abbreviated Proposal Title)_Qtr1.