Reporting Period	March 2014 - June 2014
Proposal	1420-732-7231 Effects of the Introduction of Feed Grains into Mid-South Soybean Production Systems (Year 1 of 3)
Committee	Production
Target Area	Supply
Project Start Date	10/1/2013
Project End Date	9/30/2014
Project Number	1420-732-7231
Project Status	<ul> <li>Mississippi State University (Stoneville) – Bobby R. Golden</li> <li>The 2014 field season has remained slow in the Mid-South due to persistent wet weather. The wet weather conditions hampered planting progress for all cropping systems in all states with the exception of Texas. Here at the Delta Research and Extension Center (DREC), As of current we have taken preliminary soil samples and have planted all the rotational systems. Planting progress at the DREC was slightly later than originally planned with seeding occurring on the following dates: Corn (March 26), Soybean (April 19) and grain sorghum (May 1). All plots and rotations have been fertilized and layby herbicides have been sprayed occurring to the BMP guidelines for Mississippi. Due to the persistent wet conditions we have not yet initiated irrigation on corn or soybean. At the time of this report, corn plots are at or near tassel stage, soybeans are approaching R1, and grain Sorghum has reached about 6-LF.</li> <li>Texas-A&amp;M – Clark Neely and Ronnie Schnell Until May 15, College Station had received only 40% of normal rainfall for the year. However, we received 9" of rainfall for the month of May alone, which brings us within 2.5" of normal for the year. Corn planting occurred on March 27. Due to the dry conditions, plots</li> </ul>

were irrigated on April 17 (1.2"). Herbicides were applied on March 7 (Metolachlor at 1.5 pt/A), April 1 (Glyphosate and Metolachlor at 2 pt/A and 1.5 pt/A), and May 7 (Glyphosate at 2 pt/A). Dimethoate (3/4 pt/A) and Pyrethroid (1.8 oz/A) were applied on April 16 and May 6, respectively, to control thrips and armyworms. Soybean seed was not inoculated, but inoculated soybeans were grown the previous year in the same field and sufficient nodulation did occur. In the past week, there appears to be slight to moderate herbicide injury due to drift from neighboring plots/fields. Symptoms are mostly uniform across all soybeans and indicate possible Dicamba drift due to cupping of younger leaves. This situation will continue to be monitored to determine the credibility of any soybean yield data that would be gathered this year.

#### LSU AgCenter – Josh Lofton

Since the last report, all crops within the rotation have been established. However, due to inclement weather, all crops (soybeans, corn, and grain sorghum) were established on the same day. While not ideal, corn was planted later than the current recommended timeframe but grain sorghum and soybeans were planted within normal ranges. The field's soil test did not indicate a need for P or K fertilization, therefore none was applied. Both corn and grain sorghum have received N applications at the rate of 270 lbs ac<sup>-1</sup> and 120 lbs ac<sup>-1</sup> for corn and grain sorghum, respectively. Since the field had very intense field preparations to aid in improved water efficiency prior to this long-term trial, weed pressures have been higher than typical. Two applications of glyphosate have been applied to the corn and soybean, with quinclorac (as Facet) was applied to the grain sorghum, during an excessively moist period. Due to this increased grass pressure in this field and surrounding fields, fields have had increased army worm pressure; however, an initial pesticide application has diminished previous populations. Due to high soil moisture and consistent rainfalls throughout the region, no irrigation

applications have been applied at this time.

### University of Arkansas – Jeremy Ross

### Pine Tree Location

Corn was seeded on April 11, with soybean and grain sorghum seeded on May 24. Fertilizer has been applied as per Arkansas BMP. As of current the field conditions are very wet from the persistent rain events over the last few weeks. Herbicide applications appear to be holding the weed pressures back with current soybean growth stages of V5, corn at V10, and milo is at flagleaf. The soybeans have slight deer damage that has caused a slight stunting in a few plots.

# Newport Location:

Due to persistent wet conditions, all crops at the Newport location were seeded on May 7.All crops are up to a good stand with corn currently at V6, Soybeans at V3, and grain sorghum at V6.

Fertilizer and preemegence herbicides have been applied. Currently there is slight stunting in one replication due to prolonged standing water from rainfall.

# **University of Missouri** – Gene Stevens

We received above normal rainfall this spring with low temperatures in April and early May which has delayed some our field work. The corn in the rotation study was planted on May 7 and is 27 inches tall with 8 fully expanded leaves. The soybeans and sorghum were both planted on May 12. The soybeans are 7 inches tall at V4 growth stage. The sorghum is 20 inches tall 6 fully expanded leaves. We applied herbicides for weed control but have not applied sidedress N yet on the corn and sorghum.

**Mississippi State University (Starkville)** – *Trent Irby* Due to the frequent rains received during the early planting window, corn, soybean, and grain sorghum were all planted on May 13, 2014. Seeding rates were as follows: irrigated corn - 34,000 seeds/acre, nonirrigated corn - 28,000 seeds/acre, soybean - 150,000 seeds/acre, and grain sorghum - 75,000 seeds/acre. As of June 4, corn is at the V4 growth stage, soybean is at the V3 growth stage, and grain sorghum is at the V3 growth stage. Nitrogen will be applied to both the corn and grain sorghum as soon as weather permits.

NOTE: Uploaded by Katie Williams on behalf of Bobby Golden on 6/11/14.

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