

Please use this form to clearly and concisely report on project progress. The information included should reflect quantifiable results that can be used to evaluate and measure project success. Comments should be limited to the designated boxes. Technical reports, no longer than 4 pages, may be attached to this summary report.

<b>Project Number:</b>	1720-172-0122
<b>Project Title:</b>	Effects of the Introduction of Feed Grains into Mid-South Soybean Production Systems
<b>Organization:</b>	Mississippi State University
<b>Principal Investigator Name:</b>	Dr. John Orlowski
<b>Report Period:</b>	April-June 2017

**Project Status:** Ongoing

**Mississippi**

Similar to other locations, all crops are in excellent condition. Corn was planted on March 21 while soybean and milo were planted on April 6<sup>th</sup>. All weed control and fertility activities have been performed on all crops. The grain sorghum is beginning to head and insect applications will begin shortly.

Good progress is being made on the economic evaluation of the rotations for the first three years of the study. Discussions are being had about the necessity of waiting until the completion of this year's rotational cycles to develop extension materials and research publications. It depends on whether it would be beneficial to compare one cycle of the two year rotations to the three-year rotations or two cycles of the two-year rotations to the three year rotations. Soils and nematode data are being compiled for the 2016 growing season which will allow for further analysis.

A summer meeting is being planned for July to discuss issues related to the project including timing of soil sampling, rotational alterations, and residue management.

**Louisiana**

Crops are in excellent conditions. Irrigation has not been necessary due to timely rainfall. Corn was planted March 20, 2017 @ 35,000 seed/acre and fertilized with 30-0-0-2 @ 220 units of N April 12. Corn began to tassel early in the week of May 22. Corn is now in the R1 stage. Soybean planted on April 17, 2017 are in V7 growth stage nearing bloom. Grain sorghum planted on April 17, 2017; fertilized with 30-0-0-2 @ 120 units of N. Grain Sorghum is approximately 9 leaf in growth stage 3.

**Missouri**

The Missouri rotation plots are emerged and growing. The corn was planted April 11 and fertilized with 100 lb N/a on May 18. Soybean and grain sorghum was planted on April 24. The sorghum stand was poor so we replanted on May 9. It has emerged to a good stand now.

**Texas**

Corn was planted on March 3 and followed immediately with a shot of Outlook (16 oz/a). Soybean plots received Broadaxe (24 oz/a) and Metribuzin (5 oz/a) on March 22 and sorghum plots received 16 oz/a of Outlook on March 23. Soybeans and sorghum were then planted March 27. Corn and soybeans both got a round of Liberty (29 oz/a) on April 18. Sorghum was cultivated between rows on May 22 to help with weed control. On April 22, corn was fertilized with 51 gal/acre of 32-0-0 and 31 gal to sorghum. Soybeans did not need fertilizer. Currently, corn is at the milk stage, soybeans are at the R2 stage and sorghum is beginning to flower. We hope to spray the soybeans for insects on Friday this week as we have a myriad of insects from various stinkbugs and leafhoppers to leaf beetles, grasshoppers, etc. No loopers or worms that I could

find. The stinkbugs are of most concern at the moment. We hope to spray for midge on the sorghum later this week as soon as fields dry out enough.

**Arkansas**

Newport

Corn

Planted April 13, 2017

Growth Stage May 29 V6

Looks good, post herbicides and sidedress N have been applied.

Grain Sorghum

Planted April 13, 2017

Growth Stage May 29 V5

Looks good, post herbicides and sidedress N have been applied.

Soybean

Re-planted May 17 (incorrect post herbicide used)

Growth Stage May 29 VC

Looks good

Pine Tree

Corn

Planted April 18, 2017

Growth Stage May 30 V6

Looks good, post herbicides and sidedress N have been applied.

Grain Sorghum

Planted April 18, 2017

Growth Stage May 30 V5

Looks good, post herbicides and sidedress N have been applied.

Soybean

Planted May 15, 2017

Growth Stage May 30 VC

Looks Good.