Project Number:	1720-172-0124
Project Title:	Enhanced Pest Control Systems for Mid-South Soybean Production
Organization:	LSU AgCenter
Principal Investigator Name:	Trey Price
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Project Status: Active

Louisiana

Hollier: In south Louisiana (Crowley and Baton Rouge), planting was delayed due to heavy rains. During the August floods, both locations were under several feet of water, and very few plants survived. Unfortunately, no disease ratings were possible in these locations. **Price:** In central Louisiana the 30 entry variety trial was rated for iron deficiency chlorosis, Cercospora blight, frogeye leaf spot, aerial blight, taproot decline, and soybean rust. In northeast Louisiana the trial was rated for target spot and Cercospora blight. CLB was more severe in NELA than in CENLA this year. Data will be sent to Blair Buckley very soon. **Buckley:** No report received. **Davis:** Seed increase for 36 Plant Introductions occurred. Started with 50 seed each and ended with 0.25 to 0.5 lbs. each. We will increase again next year. Seed increase on 4 advanced breeding selections occurred resulting in ~20 lbs of seed each. Seed increase will continue and seed from this will be distributed to collaborators for insect resistance testing next year. Field screening locations in Louisiana (two) and one location in Texas (one) were flooded after being well established and had to be destroyed. The field location in Missouri grew very well but the total number of stink bugs sampled over the entire season was less than 20 insects. I suggest that this location be abandoned as this is not providing the insect pressure needed to give sufficient meaningful data. A better location would be in Mississippi and Dr. Clint Allen (USDA-ARS).

Arkansas

Orazaly: During fall, pubescence color notes of these PIs were taken and they were harvested from two AR locations (Stuttgart and Fayetteville). Seeds will be available to distribute in 2017. Based on the 2016 data, new sources of resistant PIs will be identified and used to make crosses in 2017. **Faske:** Thirty soybean germplasm lines were planted on 7 June at Newport Extension Center near Newport, Arkansas. The Arkansas entries and Louisiana entries were in the same field but in different blocks. CLB was observed in these trials at mid-Sept (Fig 1). The severity of CLB, FLS, TS, were rated on 12 Sept and yield are collected at end of October (Table 1 and 2). **Spurlock:** Cercospora leaf blight (CLB)(*Cercospora kikuchii*) assessments were taken on 16 Aug, and Frogeye leaf spot (FLS)(*Cercospora sojina*) and CLB assessments were taken on 31 Aug and 19 Sep. Purple seed stain (PSS)(*Cercospora kikuchii*) was rated post-harvest based on a 0-10 scale, with 0 denoting 0% PSS. The trial was harvested on 11 Oct with a plot combine. An abnormal amount of rainfall was recorded during the growing season, 13 inches, with 8 of those in the month of August. The trial had to be replanted and seed for entries 12 (R11-1192) and 27 (LA560512) were unavailable, and therefore are not included in this trial. Petiole lesions, blight symptoms, and symptomatic petioles were not observed. **Rupe:** The regional germplasm test was established at the Lon Mann Cotton Research Station (LMCRC), Marianna, AR, and the Rice Research and Extension Center (RREC), Stuttgart, AR. The tests were rated several times (Tables 1 and 2). Most lines developed little or no foliar disease, but there were some lines with significantly more disease than others.

Mississippi Allen: Ratings were conducted at Verona and Stoneville, the two locations where variety trials were conducted to determine the impact of variety on Cercospora blight. At present, the only thing left to do would be to work on completing the purple seed stain ratings from harvested grain samples that have been stored in a cool dry place.

Missouri Shannon/Jones: Data has been received. **Tennessee Kelly:** No report received.

Texas Zhou: No report received.