

## Assisting Growers with Cotton Variety Selection by Providing Local Data

### Summary

Cotton variety selection is very important decision that cotton growers face every year. Choosing the right or wrong cotton variety could be the difference in having a profitable cotton crop. Seed companies are constantly releasing cotton varieties with new technologies so it is difficult to stay up to date on how these new varieties perform. In response to this the Evans and Candler Counties ANR Agent conducted a local cotton variety trial to evaluate popular cotton varieties. Data was collected from this local on-farm trial, and presented to the growers of Evans and Candler in an easy to view format that can be used to assist growers with cotton variety selection.

### Situation

The technology for the cotton industry is continually evolving with new resistance to herbicides, insects, and diseases, but with this evolution comes new cotton varieties that are untested on a large scale and in local environments. The old reliable varieties that growers have become comfortable with are being phased out and replaced with new varieties. This cycle often leaves growers confused about which variety is the best for their farming operation, and so this creates a need for local data to assist them with this decision. To access this need, local cotton variety trials can be a useful tool to provide learning opportunities for the local growers and the county extension agent.

### Response

The Evans and Candler Counties ANR Agent collaborated with the UGA cotton specialist Dr. Camp Hand and local cotton producer Del Beasley to establish an on-farm trial that compared 12 cotton varieties that were subjected to the same field conditions. This on-farm trial offered the opportunity for the agent and local growers to see how different cotton varieties respond to local environmental conditions in Southeast Georgia. The cotton varieties in this on-farm trial were monitored throughout the growing season. Upon harvest, weights for each variety were recorded to determine yield and samples were also collected at harvest and taken to the UGA micro-gin in Tifton, GA to establish final yield data. This information was then presented to growers from Evans and Candler Counties during the 2022 production meetings and posted on the Candler-Evans Ag Updates BLOG so growers could use this data to make an informed decision about which cotton variety was best to plant on their farm in southeast Georgia.

### Impact

As a result of conducting a local on-farm cotton trial, cotton producers had the opportunity to see the growth characteristics and performance data on 12 different cotton varieties. The top performing cotton variety yielded 1511 lbs. and the lowest yielded 1242 lbs. of lint per acre. This means that possibly selecting the wrong variety could cost growers 269 lbs. of lint per acre. Assuming cotton is \$0.85 per pound, this scenario could cost a grower \$229 per acre in gross profit. If a grower plants 500 acres of cotton and chooses the highest performing cotton variety that farm could potentially earn an additional \$114,500 of revenue for that cotton crop versus selecting the lowest yielding variety. Based on the 16,899 acres of cotton planted in Candler and Evans County for the 2022 crop year the results of the on-farm cotton trial could beneficially impact the economy of these two counties by \$3,869,871.