## 2021 UGA ON-FARM COTTON VARIETY EVALUATION PROGRAM PRELIMINARY RESULTS

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## **Abstract**

In 2010, the UGA Cotton Agronomists implemented this variety testing program. Our industry partners were asked to provide their most well-suited varieties for Georgia. Additionally, the most planted variety from 2020 was evaluated (DP 1646 B2XF), along with the variety that won the 2020 trial (DG 3799 B3XF). Historically, the 12 varieties evaluated in this program have accounted for nearly 75% of the planted acreage in Georgia in the same year. These varieties were planted in replicated trials in growers' fields throughout cotton producing regions of Georgia, through coordination with the county agents. The trials were managed and replicated by the grower with the assistance of the coordinating county agent to achieve realistic and statistically sound results. Seed cotton samples from each variety

were collected upon harvest of each trial and ginned at the UGA Microgin to provide realistic values for lint percentage and fiber quality. The top yielding varieties across all environments were DG 3615 B3XF and DG 3799 B3XF, and they also consistently performed above average, with both yielding above the location average 84 and 84% of the time, respectively. When analyzing only the locations that yielded below the overall average of 1,192 lbs/acre, DG 3615 B3XF and DG 3799 B3XF were the highest yielding varieties, yielding above the location average 90 and 90% of the time, respectively. In higher yielding environments, DG 3615 B3XF, DG 3799 B3XF, and ST 5091 B3XF were the highest yielding varieties, yielding above the location average 80, 80, and 80% of the time, respectively. Environment and management both play large roles in variety performance. Although certain varieties may perform better in certain environments, the frequency at which varieties are one of the higher yielding varieties can be an indicator of that variety's stability. Variety selection is a complex decision and should be made using data from replicated trials as well as multiple years and environments.