

Ten

**ANNUAL PROGRESS REPORT
TO
NORTH CAROLINA PEANUT GROWERS ASSOCIATION, INC.**

TITLE: Expanding On-Farm Testing Through Large-Scale Research
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REPORT:

SUMMARY:

Ten trials were conducted on farms with direction from NC State Extension agents to compare yield and market grades for the varieties Bailey II, Emery and Sullivan (3 trials); Bailey II, Emery, Sullivan, Wynne and Walton (1); response to the number of applications of Apogee (2 trials), and response to seeding rates (3 trials). A final non-replicated trial compared inoculant applied with in-furrow insecticides.

Results from these trials are provided to NC State Extension agents, farmers and others in agribusiness. In addition, results from key trials are included in the annual NC State Extension *Peanut Information* series (AG-331), formal classroom instruction on campus or at county production meetings, Peanut Notes loaded on the NCCES portal (<https://peanut.ces.ncsu.edu/>) (231 to date in 2021), popular press articles (*V-C Peanut News*, *Peanut Grower* magazine), the peer-reviewed literature (*Peanut Science*, *Journal of Crop, Forage, and Turfgrass Management*, *Weed Science*), and at field days.

RESULTS AND DISCUSSION:

No difference in yield was noted when comparing Bailey II, Emery and Sullivan in two trials (Columbus and Martin Counties) and Bailey II, Emery, Sullivan, Wynne and Walton in one trial (Bertie County). Peanut yield at seeding rates of 4, 5, and 6 seed per foot did not differ in one trial (Martin County) or when seeded at 5.1, 5.5, and 6 seed per foot in a separate trial (Northampton County). Two applications of Apogee increased peanut yield in two trials (Columbus and Martin counties). Digging at 4.0 mph with a KMC digger resulted in lower yields compared with digging at 2.6 mph in a trial in Columbus County. Yield data from two trials is pending (variety trial with Bailey II, Emery and Sullivan: seeding rate trial in Bertie County). Market grade characteristics are currently being determined for the majority of these trials.

IMPACT STATEMENT

Results from these large-plot trials support the historical mission of the land grant system through research, extension, and academic programs with emphasis on peanut. And, results from these trials are provided to NC State Extension agents, farmers and others in agribusiness. In addition, results from key trials are included in the annual NC State Extension *Peanut Information* series, formal classroom instruction on campus or at county production meetings, Peanut Notes loaded on the NCCES portal (<https://peanut.ces.ncsu.edu/>) (231 to date in 2021), popular press articles (*V-C Peanut News*, *Peanut Grower* magazine), the peer-reviewed literature (*Peanut Science*, *Journal of Crop, Forage, and Turfgrass Management*, *Weed Science*, *Plant Disease*), and at field days.