

On-Farm Testing Results in North Carolina from Peanut Trials in 2021-2023

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In 2021, ten trials were conducted on farms with direction from NC State Extension agents to compare yield and market grades for the varieties; and response to the number of applications of Apogee, response to seeding rates. No difference in yield was noted when comparing Bailey II, Emery and Sullivan in two trials and Bailey II, Emery, Sullivan, Wynne and Walton in one trial. Peanut yield at seeding rates of 4, 5, and 6 seed per foot did not differ in one trial or when seeded at 5.1, 5.5, and 6 seed per foot in a separate trial. Two applications of Apogee increased peanut yield in two trials. 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. In 2022, twelve trials were conducted on farms with direction from NC State Extension agents and on research stations to compare yield and market grades for the varieties; response to Apogee or Kudos; response to seeding rates; response to the combination of AgLogic and inoculant; and yield of peanuts expressing nutrient deficiency. No difference in yield was noted when comparing: Bailey II, Emery, and Sullivan in two trials; Bailey II, Emery, Sullivan, and Walton in four trials; and Bailey II, Emery, Sullivan, Walton, and Tif-NV HOL Jumbo) in one trial. Peanut yield at seeding rates of 4, 5, and 6 seed per foot did not differ in one trial. Apogee or Kudos did not increase yield in two trials. No difference in yield was noted when comparing AgLogic and inoculant treatments in one trial. Yield of peanuts expressing nutrient deficiencies was similar to peanuts not expressing a deficiency in one trial. In 2023, thirty trials were conducted on farms with direction from NC State Extension agents and on research stations to compare yield and market grades for the varieties; peanut response to single and twin rows; response to the number of Apogee or Kudos sprays; response to combinations of AgLogic and inoculant; efficacy of Steward to suppress southern corn rootworm; effectiveness of Vydate in suppressing thrips compared with commercial standards; peanut response to zinc; and response to ammonium sulfate and KMag applied early in the growing season after peanuts emerged; and to compare leaf spot control with microionized sulfur and chlorothalonil and timing of follow up applications of fungicide in Miravis-Elatus programs. Yield of Bailey II, Emery, and Sullivan was similar in 7 of 12 trials. Walton yielded as well as Bailey II, Emery, and Sullivan in 6 trials. Tif Jumbo yielded less than these varieties in 1 of 2 trials. Apogee increased yield in 1 of 3 trials. No difference in yield was noted when peanut was planted in twin rows compared with single rows or when ammonium sulfate or KMag was applied to peanut early in the season. Applying chlorothalonil for the first and last spray protected peanut from leaf spot more effectively than microionized sulfur as the first and last spray. Yield was lower when sulfur was used in place of chlorothalonil. No difference in leaf spot control or peanut yield was observed when the interval between Miravis plus Elatus sprays and follow up fungicides was compared (2, 3, and 4 weeks.) Steward applied three times beginning in late June protected peanut from rootworm scarring in three of five experiments. However, no difference in yield was observed in trials with a difference in pod scarring. Vydate suppressed thrips as well as AgLogic in one experiment and more effectively than imidacloprid in three experiments.