Field performance of Nineteen Runner-Type Peanut Cultivars/Genotypes in Mississippi County, Arkansas, 2024

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Field performance of nineteen runner-type peanut (*Arachis hypogea* L.) cultivars/genotypes were evaluated in an on-farm peanut trial near Leachville, AR. Seeds were either foundation or breeder seed. Cultivars and/or genotypes were arranged in a randomized complete block design with four replications. Plots consisted of two row, 25-ft long rows spaced 38 inches apart, and separated by an 8 ft fallow alley. Seed were planted on 9 May at a rate of 6 seed/ft of row in a field previously cropped to cotton (2022 and 2023). Admire Pro (imidacloprid at 7.0 fl oz/A) and Primo CL (peanut inoculant at 7 fl oz/A) were applied in-furrow at planting at 9.4 gal/ac. Fungicides were applied as per farmers disease management program with at least three applications in the 2024 cropping season. Peanut plants were dug on Oct 10 (154 DAP) and thrashed on Oct 16 with a KMC 3020 two row thrasher equipment with a bagging system for small plots.

Data was subject to ANOVA using Agricultural Research Manager Software (version 2024.2) and means were separated using Tukey's honest significant difference test ($P = 0.05$).

No foliar diseases were observed and only one or two small spots of southern blight caused by *Athelia rolfsii* were observed in the study. The southern blight incidence was minor and not included in these results. Root-knot nematode density at planting averaged 5 J2/100 cm^3 of soil and decreased by the end of the season to 0 J2/100 cm^3 of soil.

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Table 1. Field performance of 19 runner-type peanut cultivars/genotypes. The soil texture was a loamy sand soil (81% sand, 15% silt, and 4% clay).

Variety	Oleic Acid	Stand Counts (18 DAP)[a]	Grade[b]	Yield (lb/ac) (6 % moisture)[c]
AG18	high	42.5 a-d[d]	72	5,118 c
NemaTamII	high	47.8 ab	72	6,868 abc
Murray	high	48.5 ab	73	7,458 abc
TXL100212-03-03	standard	45.3 abc	75	6,890 abc
R106-9L	high	47.8 ab	75	5,984 abc
R109-1L	high	48.5 ab	75	5,883 abc
IPG 20-3-1102	high	40.3 a-e	70	5,744 bc
IPG 21-SP-0229	high	40.0 a-e	75	5,080 c
IPG 3628	high	40.5 a-e	72	6,470 abc
IPG 517	high	50.5 a	73	6,503 abc
IPG 913	standard	37.0 b-e	78	6,707 abc
Arnie	standard	40.3 a-e	74	6,422 abc
FloRun 52N	standard	43.5 a-d	75	8,296 a
FloRun T-61	high	40.8 a-e	75	8,309 a
GA 06G	standard	42.0 a-e	76	7,679 ab
GA 20VHO	high	33.8 cde	76	5,984 abc
GA 21GR	standard	30.0 e	78	7,120 abc
GA 16HO (ACI)	high	48.5 ab	77	6,557 abc
GA O9B (ACI)	high	33.0 de	77	7,819 ab

[a] Stand count is total number of plants per 10 row ft.

[b]Grade (total SMK) was based on USDA standard for peanut and conducted by USDA graders at Birdsong Peanut in Portia, AR.

[c] Moisture at harvest averaged 6 percent moisture across cultivars.

[d]Data are averages of four replications. Averages followed by a different letter within each column are significantly different at $\alpha = 0.05$ according to Tukey's HSD.