

Performance of Peanut Varieties In Alabama, 2019



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Performance of Peanut Varieties in Headland, Alabama, 2019

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"The mission of the Alabama Variety Testing Program is to provide research-based, unbiased results on the performance of various crop hybrids, cultivars, and varieties to the agricultural community in our state. We are intent on conducting these trials in a manner that will result in maximum biological yield through methods common to the top-producing farms in Alabama. We are committed to providing this information in a rapid, timely manner for its use during the decision-making process. The success of the program rests upon our ability to help Alabama producers provide a safe, dependable source of food and fiber for all families as well as economic sustainability for theirs"

Methods

Varieties were arranged in a randomized complete block experimental design with four replications. Plot size was two rows, 36 inches wide and 20 feet long. Land was conventional tillage and fertilized to soil test recommendations. We used 1 pt/ac sonalan and 0.45 oz./ac strongarm preplant incorporated. We applied 2 oz/ac valor pre-emergence. On June 18, we made a broadcast application of 1.5 pt/ac 2,4-DB for broadleaf control. Then hand-weeded as necessary for the remainder of the growing season. Plots were dug with a 2-row KMC digger/inverter. After a few days of field drying, plots were harvested with a 2-row Lilliston peanut combine. Plot bags were dried on a peerless dryer wagon then moisture was sampled. Each bag was weighed separately and a grade sample was taken from each plot to be graded for TSMK, other kernels, and damage.

Soil type, test, planting date, harvest date, rainfall, and irrigation.

Table 1 Dryland Peanut Variety Test

Location	Soil Type	Test	Planting Date	Dig Date	
Headland	Dothan sandy loam	Dig 1	9-May	9/10/2019	124 days
		Dig 2	9-May	9/25/2019	139 days
		Dig 3	9-May	10/2/2019	146 days
		Dig 4	9-May	10/11/2019	155 days

Table 2 Irrigated Peanut Variety Test

Location	Soil Type	Test	Planting Date	Dig Date	
Headland	Dothan sandy loam	Dig 1	15-May	9/9/2019	117 days
		Dig 2	15-May	9/25/2019	133 days
		Dig 3	15-May	10/2/2019	140 days
		Dig 4	15-May	10/11/2019	149 days

Table 3 Rainfall

Rainfall		Irrigation	
	Amount	Date	Amount
April	4.47"		
May	6.93"	5/17/2019	0.4"
June	3.76"	5/30/2019	0.5"
July	7.72"	6/17/2019	0.5"
August	6.56"	7/1/2019	1.0"
September	4.03"	7/12/2019	1.0"
October	5.93"	8/8/2019	1.0"
Total	39.4"	8/19/2019	1.0"
		9/5/2019	0.5"
		9/19/2019	1.0"
		Total	6.9"

Table 4. Dryland Peanut Variety Test

	Variety	TSW # plants/plot	White mold # plants/plot	Yield lb/A	TSMK/OK%
DIG 1					
124 days	IPG914	6.8 a-d	0.3 ab	3141 h	
	IPGQR14	15.8 a	0.3 ab	4222 g	
DIG 2					
139 days	Ga07W	1.5 de	0.0 b	5500 a-d	71/3
	Tifguard	1.5 de	1.3 ab	5316 b-e	72/3
	AU 16-28	4.0 bcd	0.3ab	5756 abc	71/3
	Ga16HO	3.8 bcd	0.0 b	6306 a	72/3
	Ga06G	2.3 b-e	0.8 ab	6031 ab	73/2
	Greener	2.8 b-e	0.0 b	5958 abc	73/3
	Ga09B	8.5 abc	0.0 b	5445 a-d	73/3
DIG 3					
146 days	Ga13M	4.8 b-e	1.5 a	4610 efg	73/3
	Ga14N	6.8 a-d	0.3 ab	4235 g	76/3
	Ga18RU	4.0 bcd	0.0 b	5155 c-f	78/2
	TifNV	2.8 b-e	0.5 ab	4792 d-g	71/3
	AU-NPL 17	2.0 cde	0.5 ab	5227 b-f	70/3
	FloRun 331	3.5 b-e	0.0 b	4864 d-g	72/3
	Tuf 511	7.8 ab	0.3 ab	5372 b-e	75/2
	Tuf 297	4.3 b-e	0.3 ab	5409 b-e	74/2
	ACI3321	1.5 de	0.3 ab	4901 d-g	70/3
	ACI3F104	2.8 b-e	0.5 ab	4429 fg	70/4
	ACI1c212	5.0 a-d	1.0 ab	4810 d-g	70/3
DIG 4					
155 days	GA12Y	0.5 e	0.3 ab	5480 a-d	71/2

Table 5. Irrigated Peanut Variety Test

	Variety	TSW # plants/plot	% leaf spot defoliation	White mold # plants/plot	Yield lb/A	TSMK/OK%
DIG 1						
118 days	IPG914	12.3 abc	4.7 ab	0	3721 hi	
	IPGQR14	17.5 a	1.6 b-e	0.3	3482 i	
DIG 2						
133 days	TifGuard	1.3 g	1.8 b-e	0.3	5808 b-d	68/4
	Ga09B	8.8 a-d	3.0 a-d	0.5	5427 c-f	73/3
	Greener	2.5 efg	1.1 b-f	0	6625 a	71/4
	Ga06G	6.0 b-g	1.5 b-f	0	6462 ab	71/3
	Ga16 HO	6.0 b-g	2.8 b-f	0	5845 a-d	70/4
	AU 16-28	5.0 c-g	9.0 a	0	5590 c-f	68/5
	Ga07W	10.8 a-d	2.0 a-d	0.5	5354 c-f	65/5
DIG 3						
140 days	ACI1C212	4.8 c-g	0.4 e	0	4945 d-h	69/4
	ACI13F104	1.8 fg	3.8 bcd	0.3	4854 f-i	70/4
	ACI3321	6.5 b-f	0.8 def	0.3	5706 a-e	68/4
	TUF 297	7.3 b-f	1.4 c-f	1	5869 abc	72/3
	TUF 511	15.0 ab	5.4ab	0.3	5941 abc	71/4
	FloRun 331	13.0 a-d	0.9def	0.3	5144 c-g	70/4
	AU-NPL 17	6.3 b-f	1.0 c-f	0.3	5778 a-e	69/4
	TIFNV	3.5 efg	3.7 abc	0.3	5127 e-i	71/4
DIG 4						
149 days	Ga12Y	2.8 efg	3.8 b-e	0	6419 ab	72/3

Descriptions of 2019 Peanut Variety Test Entries

ACI 3321

Developed by Dr. Kim Moor of AgResearch Consultants Incorporated. Released in 2018 under the 1994 Amendment of the Plant Variety Protection Act. It has medium late maturity and is resistant to TSWV.

AU-NPL 17

Developed by Dr. Charles Chen of Auburn University in cooperation with the National Peanut Research Lab, Dawson, Georgia. The variety has high oleic chemistry and is medium in maturity with seed size similar to Georgia 06G. It carries resistance to tomato spotted wilt virus with some tolerance to late leaf spot.

Flo Run™'331'

Developed by Dr. Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2016 under the 1994 Amendment of the Plant Variety Protection Act. It carries high oleic chemistry and has some tolerance to leaf spot and white mold, and is resistant to TSWV. It has medium seed size and matures in 135-145 days.

Georgia Greener

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2006 under the 1994 Amendment of the Plant Variety Protection Act. Medium maturity, normal oleic/linoleic fatty acid ratio, with larger pod and seed size than Georgia Green and resistant to tomato spotted wilt virus. Generally darker green foliage than Georgia Green.

Georgia-06G

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2006 under the 1994 Amendment of the Plant Variety Protection Act. Medium maturity, normal oleic/linoleic fatty acid ratio, with larger pod and seed size than Georgia Green and resistant to tomato spotted wilt virus.

Georgia-07W

Developed by Drs. Bill Branch and Tim Brenneman, University of Georgia Agricultural Experiment Station. Released in 2007 under the 1994 Amendment of the Plant Variety Protection Act. Medium maturity with resistance to white mold and tomato spotted wilt virus. It is a large-seeded runner type with normal oleic/linoleic oil chemistry.

Georgia-09B

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2009 and protected under the 1994 Amendment of the Plant Variety Protection Act. It is a Runner type that has medium seed size, medium maturity, is resistant to tomato spotted wilt virus and carries high oleic oil chemistry.

Georgia-12Y

A medium seed size runner developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. It was released in 2012 under the 1994 Amendment of the Plant Variety Protection Act. It is not high in oleic. It is resistant to tomato spotted wilt virus and tolerant to white mold. It is similar to Georgia-10T in late maturity.

Georgia-13M

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 2013 and protected under the 1994 Amendment of the Plant Variety Act. It is a Runner type with medium seed size and a large percentage of medium grade seed. It is medium in maturity, resistant to tomato spotted wilt virus and carries high oleic oil chemistry.

Georgia-14N

Developed by Drs. Bill Branch and Tim Brenneman of the University of Georgia Agricultural Experiment Station. It was released in 2014 under the 1994 Amendment of the Plant Variety Protection Act. It is resistant to root knot nematode and tomato spotted wilt virus. It is a small seeded runner type with medium maturity.

Georgia 16 HQ

Developed by Dr. Bill Branch of the University of Georgia Agricultural Experiment Station. Released in 2016 under the 1994 Amendment of the Plant Variety Protection Act. It carries the high oleic trait and is resistant to TSWV. Seed Size, maturity, and growth habits are similar to Georgia 06G.

Georgia18RU

Released by the Georgia Agricultural Experiment Station in 2018, developed by Dr. William D. Branch at the University of Georgia, Coastal Plain Experiment Station, Tifton, GA. It is a new high-yielding, normal-oleic, TSWV-resistant and leaf scorch-resistant, medium-large seeded, runner –type peanut variety. It was likewise found to have a similar low percent TSWV and total disease incidence, high yield and dollar value return per acre as Georgia-06G.

Tifguard

Developed by Dr. Corley Holbrook, USDA-ARS, Tifton, Georgia and released in 2007. Has normal oil chemistry. Is mid-season in maturity and carries root-knot nematode and tomato spotted wilt virus resistance.

Tif NV-High OIL

Released in 2014 by Corley Holbrook, USDA-ARS, Tifton, Georgia. Carries the high oleic trait and resistance to root-knot nematode. It is similar to Tifguard in its growth characteristics and maturity. Carries resistance to TSWV.

TUFRunner™'297'

Developed by Dr. Barry Tillman of the University of Florida Agricultural Experiment Station. Released in 2014 under the 1994 Amendment of the Plant Variety Protection Act. It carries high oleic oil chemistry and is an extra-large seeded runner type with medium maturity. It carries resistance to white mold, tomato spotted wilt virus, but is susceptible to leaf spots. It has a prominent center stem.

TUFRunner™'511'

Developed by Dr. Barry Tillman, University of Florida Agricultural Experiment Station. Released in 2014 under the 1994 Amendment of the Plant Variety Protection Act. Large-seeded Runner type with approximately 140 days to maturity. Moderately susceptible to tomato spotted wilt virus and carries high oleic oil chemistry.