

PEANUT VARIETIES

There are four peanut market types: virginia, runner, valencia, and spanish types. Virginia types and runners (the two main types grown in S. C.) differ from valencias and spanish types in that neither the virginia or runner types bloom and produce fruit on the upright main stem. The difference between a virginia and a runner is based on pod size. If at least 40% of pods ride a 34/64 inch roller standard, then that variety technically has enough “fancy pods” to qualify as a virginia market type.

Within both the virginia and runner market categories there are many varieties available and new ones being released every year. Despite this abundance of released varieties only a relative few are best adapted for production under S. C. climate and disease conditions. See the following discussion and table for variety characteristics and performance results.

***Recommended Variety**

****Recommended for On-Farm Trial**

VIRGINIA TYPES

***AT-VC2:** This variety has outstanding yield and grade performance in S. C. trials, but AT-VC2 has slightly smaller pods for a virginia type and therefore sheller acceptance and seed supply has been very limited. TSWV resistance is similar to NC V11. AT-VC2 is a bit more susceptible to late leaf spot than NC-V11, but less susceptible than Gregory, Phillips, or Perry. AT-VC2 may also be slightly less susceptible to white mold based on our tests.

****Bailey:** Bailey is a new early maturing (125 days) release with limited seed supply. In our tests at Blackville Bailey has demonstrated high yield potential, a very bright hull, and excellent resistance to white mold and spotted wilt disease. Bailey has also shown reduced susceptibility to late leaf spot and CBR. Pod size is similar to NC-V11. **We believe this variety is extremely promising for S. C. production** conditions. The only negative characteristics observed so far are a very large, rank growing canopy and increased susceptibility to leafhopper injury. Bailey is not high oleic.

Brantley: Brantley has a very large pod (even slightly larger than Gregory) and high ELK scores. It does not recover well from drought stress, and is susceptible to spotted wilt virus, late leaf spot, and white mold. Brantley is a high oleic peanut.

***Champs:** Champs is an early-maturing variety (125 days) that has performed well under S. C. conditions. It has shown high yield, slightly higher SMK and ELK than NC-V11, and virus resistance equivalent to NC-V11. Champs is more susceptible to leaf spot than NC-V11, but less susceptible than Perry, Phillips, or Gregory. Champs is highly susceptible to white mold, like all other currently available virginia types. **Currently, Champs looks like the best choice among the larger pod virginia-types.**

****Florida Fancy:** In tests at Blackville, Florida Fancy has had similar spotted wilt and white mold resistance, but better late leaf spot resistance compared to the NC-V11 standard. **Maturity can be 7-10 days later than NC-V11.** Like many Florida lines, Florida Fancy has a low, flat bush. Florida Fancy also has high oleic oil chemistry.

Georgia 05E: Although Georgia 05E qualifies as a virginia-type, the pods are not as long as traditional virginia types which limits acceptance for in-shell use. Georgia 05E has later maturity than standard virginia types and therefore should be planted by 10 May. Georgia 05E has high yield; excellent grade (SMK); and resistance to spotted wilt, late leaf spot, and white mold.

****Georgia 08V:** Georgia 08V is a high oleic peanut which has shown **high yield potential, exceptional grade (both TSMK and ELK)**, as well as better late leaf spot and slightly better white mold resistance than the NC-V11 standard. Spotted wilt resistance was equivalent to NC-V11. Georgia 08V has a shorter, “blocky” pod shape compared to traditional virginia type varieties. This characteristic along with high ELK premiums has slowed sheller acceptance and seed supply.

Georgia HI-O/L: This variety has a high oleic to linoleic fatty acid ratio which improves shelf life. Yield has been competitive with NC-V11. TSWV resistance is similar to NC-V11. Ga Hi-O/L is susceptible to late leaf spot. Demand has been limited in the virginia market due to pod size and shape.

***Gregory:** Gregory has high yield potential, very large pods, and one of the highest ELK scores available. Although Gregory has resistance to spotted wilt, this variety is not immune and will be severely affected under heavy thrips pressure. Gregory is **very susceptible to late leaf spot** and white mold. Gregory is particularly susceptible to drought stress and calcium deficiency because of its large pod size, and therefore does best under irrigation. The large pod size makes it most suitable for sandy-surfaced soils to avoid digging loss. Gregory also fits the green peanut market in S. C. because of its size and hull brightness.

NC 7: NC 7 has large pods and a high ELK percentage. This variety is susceptible to late leaf spot, spotted wilt virus, and Diplodia collar rot. Yield is generally not competitive with Gregory, and therefore NC 7 is not the best choice among large-podded varieties.

***NC-V 11:** NC-V 11 is **the current standard for virginia types under S. C. conditions**. It has high yield and grade potential, a bright hull, relatively low susceptibility to late leaf spot, and some tolerance to tomato spotted wilt virus (TSWV). NC-V11 produces excellent yields under ideal soil moisture conditions, and tends to outperform under drought stress. NC-V11 is a medium maturity virginia type and typically matures in about 132 days at Blackville.

NC 12C: NC 12C is a large peanut with CBR resistance. However, Perry should have greater yield potential in CBR problem fields.

Phillips: Phillips is a medium maturity variety (132 days) with high yield potential and large, bright pods. Phillips is **highly susceptible to late leaf spot, white mold, and TSWV**. Phillips performs well under irrigation with increased fungicide protection.

Va 92R: This is a consistently high-yielding virginia type under S. C. conditions. Va 92R has more ELKs than NC-V11, but a slightly darker hull has limited demand for the in-shell market. Va 92R is susceptible to TSWV. Seed are no longer available.

Va 98R: Va 98R has yielded well under S. C. conditions and can be slightly earlier in maturity than NC-V11. Pod size is similar to NC-V11. Va 98R is more susceptible to TSWV than is NC-V11 and therefore should not be planted early (before about 7 May). Leaf spot susceptibility is similar to NC-

V11. Va 98R is being phased out of the seed supply due to smaller pod size

***Perry:** This variety is **recommended for fields with a known severe CBR problem.** Perry is a later maturing (140-145 days), bright-hulled variety with CBR resistance. This variety has a larger pod and higher % ELK than NC-V11. Perry is highly susceptible to both TSWV and late leaf spot. In most S. C. tests, Perry has not yielded with the NC-V11 standard, but Perry is the variety of choice for CBR resistance.

****Sugg:** Sugg is a 2009 release in seed increase. This variety has resistance to white mold, tomato spotted wilt, and is less susceptible to late leaf spot than other large-pod virginias such as Gregory or Phillips. In four test years at Blackville, Sugg has not been quite as good as Bailey in disease resistance, pod brightness, or yield potential. However disease performance is better than most currently available large pod virginia types. Like Bailey, Sugg has a very large canopy (potential digging problems without GPS or growth regulator) and is highly susceptible to leafhopper injury.

Titan: Titan is a 2010 release from Virginia Tech. This variety has exceptionally large pods and is considered a potential specialty peanut for the green or parched in-shell peanut market. Titan is very susceptible to late leaf spot, white mold, and hopper burn. Yield potential appears to be less than Gregory (an alternative large pod variety) based on limited testing.

Wilson: Wilson is an early-maturing variety with a very bright hull. It has about the same ELK as NC-V11, but SMK has been consistently less than other virginia types. Wilson is considered TSWV susceptible. Wilson also appears to be highly susceptible to white mold and CBR.

***Recommended Variety**

**** Recommended for on-farm trial.**

RUNNER TYPES

AP-3: AP-3 has medium maturity and resistance to TSWV and white mold. AP-3 did not yield as well on-farm as Ga. Green or Georgia 03L under drought stress. AP-3 is highly susceptible to CBR. AP-3 has a low, flat bush which is characteristic of some of the Florida lines.

AP-4: AP-4 has yield potential similar to Georgia Green. AP-4 also has a low, flat bush like AP-3.

AT-201: Similar to Ga. Green in maturity, AT-201 has more vigorous growth and larger kernels, but less virus resistance.

***AT-215:** AT-215 is an early maturity high oleic replacement for ViruGard with similar pod size (a large runner). AT-215 has demonstrated higher yield potential than ViruGard, but somewhat greater leaf spot susceptibility compared to other runners. The main stem of AT-215 forms a distinct spike that may help digging. **AT-215 is the best available runner type with early maturity.**

AT-3081R: This is a medium maturity runner. AT 3081R has spotted wilt resistance but is susceptible to late leaf spot. AT 3085 has outperformed AT 3081R at Blackville.

AT-3085RO: Under high-yield irrigated conditions, AT 3085 has produced yield equivalent to the Ga. Green standard. AT 3085 has a large bush for a runner.

Carver: A medium maturity (140 day) runner variety with TSWV and white mold resistance. Carver has lower grades (SMK) than Ga. Green and is not considered to be yield competitive in most areas of the Southeast.

C99R: C99R has large pods and improved tomato spotted wilt resistance, but requires 150 days to mature and therefore must be planted during the first week of May. C99R has had inconsistent stands.

DP-1: This is a late-maturing (150+ days) variety. DP-1 has excellent resistance to TSWV, white mold and late leafspot. Yield performance has generally not measured up to the Ga. Green standard.

***Florida-07:** Florida 07 is a large-seeded, high-oleic runner which matures **about 5-7 days later than Ga. Green**. Florida-07 has demonstrated high yield potential and some late leaf spot resistance. The bush of Florida 07 is low growing like many Florida lines

Georgia Green: Released in 1995, Georgia Green has a long history of outstanding yield and grade performance over a wide variety of soil moisture conditions. However, Georgia Green is now highly susceptible to TSW virus stunting and is more susceptible to white mold than some newer releases. Georgia Green has medium runner maturity (about 140 days). Ga. Green yield performance has been more erratic over the past six years, perhaps due to increasing susceptibility to spotted wilt virus. Ga. Green tends to have a small rounded bush. It has done best in low virus years.

Georgia Greener is recommended as a replacement for Georgia Green.

***Georgia Greener:** Georgia Greener the new runner standard to replace Georgia Green under S. C. conditions. Georgia Greener is a medium maturity variety with pod size similar to Georgia Green. Georgia Greener has shown excellent yield potential, high grade (TSMK), improved TSW resistance, and some CBR resistance. Bush size is similar to Georgia Green. **Right now, Ga. Greener looks like the best replacement for Ga. Green** on non-irrigated land because Ga. Greener has smaller pods than other new runner alternatives. **Try this variety.**

Georgia 01R: This runner variety has broad disease resistance including improved TSWV resistance as well as early and late leafspot, white mold, CBR, and leaf scorch. This is a late maturing variety and would need to be planted in early May. There have been some stand problems with 01R.

Georgia 02C: This 2002 release has high yield and greater resistance to CBR and TSWV than Ga. Green. Maturity is about 10 days later than Georgia Green which limits use in S. C. due to the need for early planting (no later than 10 May). Pod and seed size are slightly larger than Ga. Green. This is a high oleic peanut.

Georgia 03L: Georgia 03L is a medium maturity runner with large, bright pods. Ga. 03L has good resistance to TSWV, late leaf spot, excellent white mold resistance, and some CBR resistance. Grade performance (TSMK) is about 2 points below Ga. Green. Seed are no longer available.

***Georgia 06G:** Ga. 06G is a medium maturity runner with large pods. This variety has also shown excellent yield potential, high TSMK, and improved virus resistance in S. C. trials. **Georgia 06G is a top choice for irrigated runner production.** Like all the large seeded runners, Georgia 06G is more susceptible to drought stress.

***Georgia-07W:** Georgia-07W is a large-pod runner with a **high level of white mold resistance** and improved virus resistance. This variety has also shown excellent yield potential in the absence of white mold pressure. Georgia-07W is replacement for Georgia 03L with improved grade.

****Georgia 09B:** Georgia 09B is a high oleic runner with relatively small pods, medium maturity, and virus resistance. Yield performance looks very promising based on one year of testing in S.C.

McCloud: McCloud is a mid-maturity runner with spotted wilt virus resistance. McCloud yield has been competitive with the Georgia Green. This is another high oleic runner. McCloud has a relatively short bush like many Florida lines.

***Tifguard:** TifGuard has **excellent nematode resistance.** Even in the absence of nematode pressure, this variety has shown excellent yield potential at Blackville. TifGuard is a large podded runner with a distinctive low growing, dark green bush and a very prominent main stem which should help digging. TifGuard has also demonstrated excellent TSW virus resistance.

ViruGard: ViruGard is an early-maturing runner (~125 days) being replaced by AT-215. Virugard has a low level of TSWV resistance and is relatively susceptible to late leaf spot for a runner type. Yields of ViruGard and other early-maturing runners generally are lower than medium maturing lines.

Tifrunner: Tifrunner is a late maturing runner that is vulnerable to leaf spot and white mold. It is not recommended for S. C. conditions.

***Recommended Variety**

**** Recommended for on-farm trial.**

Virginia Type Peanut Performance and Variety Characteristics

Virginia-Type Variety	Yield ^a lb/ac					Yield ^a Index	Grade ^b %				Seed Size ^c (# per lb.)	Maturity ^d (Days)	High ^e Oleic	Disease Tolerance ^f							
	2006	2007	2008	2009	2010		TSMK (2010)	ELK (2010)	TSMK Index ^b	ELK Index ^b				TSWV	CBR	WM	RLR	ELS	LLS	WB	
AT VC2	3056	5693	--	--	--	+18 ⁵	--	--	+1 ⁵	-18 ⁵	600	132	yes	R-	S	R-	S	S	S	S	R
Bailey	--	--	6966	5697	5071	+8 ³	74	46	+0 ³	-1 ³	600	125	no	R	R?	R+	--	R	R	--	
Brantley	1816	4800	--	--	--	-16 ²	--	--	-1 ²	+17 ²	475	135	yes	S	S	S+	S	S	S+	S	
Champs	2844	5511	6755	5609	5038	+9 ⁵	75	52	+2 ⁵	+6 ⁵	525	125	no	R-	S	S+	S	S	S+	S	
Florida Fancy	--	5063	4756	5685	4060	-8 ⁴	72	45	-2 ⁴	-6 ⁴	525	140	yes	R	S	S	S	S	S	--	
GA Hi-O/L	2746	--	--	--	--	+10 ⁴	--	--	+7 ²	+13 ²	675	135	yes	R-	S	S	S	S	S-	--	
GA 08V			6709	6395	4834	+9 ³	76	52	+4 ³	+13 ³	550	135	yes	R-	--	S	--	--	R	--	
Gregory	2134	5152	6519	5622	4455	-2 ⁸	71	49	-2 ⁸	+11 ⁸	475	132	no	R-	S	S+	S	S	S+	S	
NC V11	2400	5342	6355	5618	4423	-4 ⁸	73	44	-1 ⁸	-11 ⁸	625	132	no	R-	S	S+	S	S	S	S+	
Perry	2160	4894	6170	5070	4125	-8 ⁷	74	47	+2 ⁷	0 ⁷	525	140	no	S	R	S+	S	S	S+	R	
Phillips	2134	5092	6391	5154	4475	-4 ⁶	75	55	+1 ⁶	+15 ⁶	570	135	no	S	S	S+	S	S	S+	--	
Sugg	--	--	6218	5120	4374	-4 ³	75	56	0 ³	+7 ³	550	135	no	R	?	R	--	R	R	--	
Titan	--	--	--	--	4180	-8 ¹	68	43	-8 ¹	-8 ¹	?	?	no	S	S	S	S	S	S	--	
VA 98R	1929	5309	6189	--	--	-3 ⁵	--	--	-2 ⁵	-10 ⁵	575	132	no	S	S	S+	S	S	S	S+	
Wilson	2674	5142	--	--	--	-3 ⁵	--	--	-3 ⁵	-4 ⁵	575	130	no	S	S	S+	S	S	S	S	

^a Yield index shows in one number the percent above or below test average (at Blackville) over a period of years indicated by the superscript number.

^b TSMK = % total sound mature kernels; ELK = % extra large kernels; TSMK or ELK Index shows in one number the percent above or below test average over the period of years indicated by the superscript number.

^c Seed sizes listed are relative. Actual size will vary significantly by seed lot; always go by the seed count on the lot if available.

^d Maturity comparisons are relative. Actual harvest date is dependent on growing season, plant health, and weather conditions. At Blackville 132-135 day virginia-type and 140 day runner-type peanut are considered medium maturity. A 150-day runner is considered late. Maturities can run 5-7 days longer in northern counties (e.g. Dillon, Marlboro).

^e A high oleic to linoleic fatty acid ratio increases shelf life.

^f **Disease resistance is a relative scale and does not imply immunity.** R = resistant; S = susceptible; S+ = very susceptible. TSWV = tomato spotted wilt; CBR = *Cylindrocladium* black rot; WM = white mold; RLR = *Rhizoctonia* limb rot; ELS = early leaf spot; LLS = late leaf spot.

Runner Type Peanut Performance and Variety Characteristics

Runner Variety	Yield ^a lb/ac					Yield ^a Index	Grade ^b %		Seed Size ^c (Approx. # seed per lb)	Maturity ^d Days	High ^e Oleic	Disease Tolerance ^f					
	2006	2007	2008	2009	2010		TSMK (2010)	TSMK Index ^b				TSWV	CBR	WM	RLR	ELS	LLS
GA Green	2897	5081	6165	5003	4585	- 1 ⁷	75	+ 0 ⁷	800	140	no	S	S	S	S	S	S-
GA-O2C	2361	--	--	--	3672	- 1 ⁴	73	+ 1 ⁴	750	150	yes	R	R	R	S	S	S-
GA-01R	2049	--	--	--	--	+ 0 ³	--	+ 0 ³	700	150	no	R	R	R	S	R	R
GA-03L	3125	4457	6264	5526	--	+ 7 ⁶	--	- 2 ⁶	650	140	no	R	R	R+	S	S	R
GA Greener	--	5699	7118	6011	5144	+ 9 ⁴	77	+ 2 ⁴	700	140	no	R	R	S-	S	S	S-
GA-06G	--	5783	6791	5722	5356	+ 8 ⁴	78	+ 4 ⁴	650	140	no	R	S	S-	S	S	S-
GA-07W	--	--	6757	5605	5099	+ 4 ³	78	+ 2 ³	650	145	no	R	S	R	S	S	S-
GA-09B	--	--	--	--	5176	+ 9 ¹	76	+ 0 ¹	750?	140	yes	R	S	S	S	S	S
Florida 07	--	5471	5549	5789	4700	- 1 ⁴	74	- 2 ⁴	650	145	yes	R	S	S	S	S	S-
McCloud	--	5130	5936	--	--	- 3 ²	--	+ 0 ²	700	145	yes	R	S	S	S	S	R-
Tifguard	--	--	6842	5969	4675	+ 4 ³	76	+ 0 ³	650	140	no	R	S	S-	S	--	R
VirusGard	1957	4669	--	--	--	- 9 ³	--	+ 0 ³	650	130	no	R-	S	S	S	S	S
AP-3	2816	--	5933	--	--	+ 4 ³	--	- 4 ³	700	145	no	R-	S+	S	S	S	S
AP-4	--	--	6276	5471	--	- 6 ³	74	- 2 ³	650	140	yes	R	S	S	S	--	R
AT-215	--	5261	6485	5802	--	+ 2 ³	--	+ 2 ³	650	130	yes	R-	S	S	S	S	S
AT-3081R	2797	4229	--	--	--	+ 1 ³	--	- 2 ³	650	140	no	R-	S	S	S	S	S
AT-3085RO	2579	5085	6271	--	--	+ 5 ³	--	- 1 ³	650	140	yes	R	S	S	S	S	S

^a Yield index shows in one number the percent above or below test average over a period of years indicated by the superscript number. Yields are from Blackville ^b TSMK = % total sound mature kernels. Grades shown are 2009 results at Blackville.

^c Seed sizes are relative. Actual size will vary significantly by seed lot; always go by the seed count on the lot if available.

^d Maturity comparisons are relative. Actual harvest date is dependent on growing season, plant health, and weather conditions. At Blackville 132-135 day virginia-type and 140 day runner-type peanut are considered medium maturity. A 150-day runner is considered late. Maturities can run 5-7 days longer in northern counties (e.g. Dillon, Marlboro).

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