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Information contained herein is available to all persons regardless of race, color, sex, or national origin.

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# The 2001 Alabama Performance Comparison of Peanut Varieties

James P. Bostick, Larry W. Wells, and Brian E. Gamble<sup>1</sup>

#### INTRODUCTION

The number of peanut varieties available to Alabama growers has increased in recent years, thus placing greater need for unbiased performance data regarding varietal selection for production.

#### **PRODUCTION**

The 2001 tests were conducted at the Wiregrass Research and Extension Center in Headland, Alabama. Prior to 2000, comparisons were made only under irrigation. During 2001, 23 entries were evaluated under irrigation, 10 entries were evaluated dryland, and 5 entries were evaluated late-planted dryland.

The experimental design for each test was a randomized complete block consisting of two-row plots, 20 feet long, replicated four times. The irrigated test was planted on April 30, the dryland test was planted on May 16, and the late-planted dryland test was planted on June 18. All tests were planted with a cone planter at a rate of six seed per foot of row. Recommended agronomic practices were followed regarding fertility, disease, insect, and weed control in all tests.

The irrigated test entries considered to be earlier than Florunner in maturity were dug on August 30, 2001. These entries included AgraTech 1-1, AgraTech VC-2, Andru 93, NC 7, VA-C 92R, ViruGard, and VT940419P. All other entries except C-99R, Florida MDR 98, and Southern Runner were dug on September 14, 2001. C-99R, Florida MDR 98, and Southern Runner, considered to be later in maturity, were dug on October 1, 2001.

The dryland test entries considered to be earlier than Florunner were dug on September 27, 2001. This entry was ViruGard. All other entries except C-99R and Southern Runner were dug on October 1, 2001. C-99R and Southern Runner, considered to be later in maturity, were dug on October 16, 2001.

In the late-planted dryland test, late fall weather conditions were not favorable for varietal maturity differences. All entries were dug on November 5, 2001. Information concerning relative maturity for all test entries was provided by the plant breeder responsible for developing the variety.

#### **DISCUSSION**

The information presented here represents data from three years at one location. Yield and disease occurrence data have been subjected to an analysis of variance. This statistical evaluation determined the overall averages for all varieties, coefficient of variation (CV), and the least significant differences (LSD). The LSD values represent the difference required for the averages of two varieties to be considered statistically different. The (.05) following the LSD value indicates that the LSD was calculated at the 95 percent level of confidence.

<sup>&</sup>lt;sup>1</sup>Bostick is an adjunct professor of the Auburn University Department of Agronomy and Soils and executive secretary of the Alabama Crop Improvement Association; Wells is superintendent and Gamble is assistant superintendent of the Wiregrass Research and Extension Center.

The CV, which is expressed as a percentage, is a relative measure of variation within a set of data. CV values of 8 to 12 percent are generally considered acceptable for yield data of agronomic crops. CV values in the disease data are considerably higher than this. However, this is expected due to random occurrence of disease in the field.

#### SIZE AND GRADE DATA TERMS

Data were collected and averaged on samples from replicates II, III, and IV for size and grade. The samples were graded following Federal-State Inspection Service procedures for grading farmer-stock peanuts.

#### **Terms Used**

*SMKRS count/lb.* (number per pound of sound mature kernels riding screen)—Number of sound whole mature kernels from 1 pound of the shelled sample riding a 15/64 x 1-inch slotted screen or a 16/64 x 3/4-inch slotted screen for Virginia or Runner varieties, respectively.

Pct. SMKRS (sound mature kernels riding screen)—Portion of shelled sample as described above.

**Pct. SS** (sound splits)—Portion of shelled sample split or broken but not damaged.

**Pct. TSMK** (total sound mature kernels)—Portion of the shelled sample comprised of sound mature kernels plus sound splits.

**Pct. OK** (other kernels)–Kernels that pass through a 15/64 x 1-inch slotted screen or 16/64 x 3/4-inch slotted screen for Virginia or Runner varieties, respectively.

**Pct. DK** (damaged kernels)–Kernels that are moldy, decayed, affected by insects or weather conditions resulting in seed coat or cotyledon discoloration or deterioration.

Pct. TK (total kernels)—All shelled sample kernels including TSMK, OK, and DK.

Pct. Hulls-All hulls from the shelled sample.

- +21.0 (generally considered as the Jumbo commercial grade)—Portion of SMKRS riding a 21/64 x 3/4-inch slotted screen.
- -21.0 +18.0 (generally considered as the Medium commercial grade)—Portion of the SMKRS falling through a 21/64 x 3/4-inch slotted screen and riding a 18/64 x 3/4-inch slotted screen.
- -18.0+16.0 (generally considered as the No.1 commercial grade)—Portion of the SMKRS falling through a 18/64 x 3/4-inch slotted screen and riding a 16/64 x 3/4-inch slotted screen.

#### **ACKNOWLEDGMENTS**

The authors express appreciation to Austin K. Hagan, professor of Entomology and Plant Pathology, for providing the disease evaluation data and to Glenn Wehtje, professor of Agronomy and Soils, for the statistical analysis. Appreciation is also expressed to Amy Folger and Larry Savelle, Wiregrass Research and Extension Center, for their cooperation.

TABLE 1. YIELD OF IRRIGATED PEANUT VARIETIES
AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

Variety or line Yield	Variety or line Yield
lb/a	lb/a
(R)¹ C156-47       6,162         (R) Georgia Green       6,071         (R) Exp 9899-02       5,999         (V)¹ Gregory       5,990         (R) C-99R       5,953         (R) AgraTech 201       5,935         (R) GA982508       5,890	(V) NC 7       5,227         (R) SunOleic 97R       5,200         (R) ViruGard       5,191         (V) AgraTech VC-2       5,127         (V) NC 12C       5,073         (V) VA 98R       5,055         (R) AgraTech 1-1       4,828         (R) AgraTech 1-1       4,828
(R) Georgia Hi-O/L       5,881         (V) NC-V11       5,663         (R) Georgia Bold       5,509         (V) VT940419P       5,400         (V) VA-C 92R       5,372	(R) Southern Runner       4,801         (R) Florunner       4,528         (R) Andru 93       4,528         (R) Florida MDR 982       3,458
Overall Average	

<sup>&</sup>lt;sup>1</sup> (R) Runner Type, (V) Virginia Type <sup>2</sup> Weak stand

TABLE 2. TWO-YEAR AVERAGE YIELD OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2001

Variety or line	2000	2001	Avg. yield
-	lb/a	lb/a	lb/a
Gregory	4,737	5,990	5,364
Georgia Hi-O/L		5,881	5,332
Georgia Green		6,071	5,305
C-99R	4,447	5,953	5,200
ViruGard	5,037	5,191	5,114
AgraTech 201	4,283	5,935	5,109
NC-V11		5,663	5,042
VA-C 92R	4,483	5,372	4,928
Georgia Bold	3,911	5,509	4,710
AgraTech 1-1		4,828	4,697
AgraTech VC2		5,127	4,651
NC 7		5,227	4,574
VA 98R	3,802	5,055	4,429
NC 12C		5,073	4,397
Southern Runner	3,866	4,801	4,334
SunOleic 97R	3,194	5,200	4,197
Andru 93	3,594	4,528	4,061
Florida MDR 98	4,075	3,458	3,767
Florunner	2,523	4,528	3,526
0 11 4			4.650
Overall Average			
CV(%)			
LSD (.05)			827

TABLE 3. THREE-YEAR AVERAGE YIELD OF IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1999-2001

Variety or line	1999	2000	2001	Avg. yield
•	lb/a	lb/a	lb/a	lb/a
C-99R	5,155	4,447	5,953	5,185
Georgia Green	4,910	4,538	6,071	5,173
Gregory		4,737	5,990	5,146
ViruGard	4,701	5,037	5,191	4,976
VA-C 92R	4,774	4,483	5,372	4,876
AgraTech 201		4,283	5,935	4,755
AgraTech VC2		4,175	5,127	4,734
NC-V11		4,420	5,663	4,722
AgraTech 1-1		4,565	4,828	4,589
NC 7		3,920	5,227	4,531
Georgia Bold		3,911	5,509	4,447
VA 98R		3,802	5,055	4,398
Southern Runner		3,866	4,801	4,265
SunOleic 97R	4,066	3,194	5,200	4,153
NC 12C		3,721	5,073	4,147
Andru 93	4,265	3,594	4,528	4,129
Florunner		2,523	4,528	3,579
Overall Average				4,577
CV(%)				
LSD (.05)				

TABLE 4. AVERAGE SIZE AND GRADE ON IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

X7 1 1 11	C) HZDC	C) HZDC	CC	TO H	OIZ	DIZ	TOLZ	TT 11
Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 1-1	784	64	2	66	8	0	74	26
AgraTech 201	768	67	7	73	5	0	78	22
AgraTech VC 2	624	62	1	63	10	0	73	27
Andru 93	720	62	3	65	9	0	74	26
C156-47	752	67	7	74	4	0	78	22
C-99R	672	68	5	73	4	0	77	23
Exp 9899-02	864	65	3	68	6	0	74	26
Florida MDR 98	768	70	4	74	3	0	77	23
Florunner	800	67	6	73	4	0	77	23
GA982508	848	69	4	73	5	0	78	22
Georgia Bold	736	66	5	71	5	0	76	24
Georgia Green	816	71	2	73	5	0	78	22
Georgia Hi-O/L	592	65	9	74	3	0	77	23
Gregory	544	67	1	68	4	0	72	28
NC 7	576	63	1	64	5	0	70	30
NC 12C	496	67	3	70	3	0	73	27
NC-V11	608	67	3	70	3	0	73	27
Southern Runner	864	68	5	73	4	0	77	23
SunOleic 97R	800	67	4	71	5	0	76	24
VA 98R	608	66	4	70	3	0	73	27
VA-C 92R	576	64	2	66	5	0	71	29
ViruGard	624	68	3	71	5	0	76	24
VT940419P	624	61	1	62	7	0	69	31

TABLE 5. TWO-YEAR AVERAGE SIZE AND GRADE ON IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2001

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 1-1	784	66	2	68	6	0	74	26
AgraTech 201		69	4	73	4	0	77	23
AgraTech VC-2	576	63	1	64	8	0	72	28
Andru 93		64	2	66	7	1	74	26
C-99R	665	68	5	73	4	0	77	23
Florida MDR 98	723	69	5	74	3	0	77	23
Florunner	799	67	4	71	4	1	76	24
Georgia Bold	702	68	4	72	4	0	76	24
Georgia Green	814	72	2	74	4	0	78	22
Georgia Hi-O/L	557	67	6	73	2	0	76	24
Gregory	482	66	2	68	3	0	71	29
NC 7	511	64	2	66	4	0	70	30
NC 12C	503	67	3	70	3	0	73	27
NC-V11	554	67	3	70	2	0	72	28
Southern Runner	853	69	5	74	3	0	77	23
SunOleic 97R	785	68	3	71	5	0	76	24
VA 98R	556	65	3	68	3	1	72	28
VA-C 92R	540	65	3	68	4	0	72	28
ViruGard	601	70	3	73	4	0	77	23

TABLE 6. THREE-YEAR AVERAGE SIZE AND GRADE ON IRRIGATED PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 1999-2001

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 1-1	775	65	2	67	6	1	74	26
AgraTech 201	745	68	3	71	4	2	77	23
AgraTech VC-2	581	63	1	65	7	0	71	29
Andru 93	725	64	2	66	7	1	74	25
C-99R	645	69	4	73	3	1	77	23
Florunner	781	66	3	69	4	2	75	25
Georgia Bold	694	69	3	72	3	1	76	24
Georgia Green	795	71	2	73	4	0	77	22
Gregory	471	66	1	67	3	1	71	29
NC7	507	64	2	66	3	1	70	30
NC 12C	502	66	3	69	2	1	72	28
NC-V11	537	67	2	69	3	1	73	27
Southern Runner	834	69	3	73	3	0	76	24
SunOleic 97R	756	68	3	71	4	1	76	24
VA 98R	551	65	3	68	2	1	72	28
VA-C 92R	518	65	3	68	3	1	72	28
ViruGard	604	69	3	72	4	1	77	23

Table 7. Average Shelled Seed Size Distribution of Irrigated Peanut Varieties at the Wiregrass Research and Extension Center, Headland, Alabama, 1999-2001

				—SMKRS	S Size Di	stribution-			
Variety or line		+21.0			21.0 + 18	.0	-1	-18.0 + 16.0	
		–Jumbo-	<del></del>		-Mediur	n		—No. 1—	
		pct			pct			pct	
	-1999-	-2000-	-2001-	-1999-	-2000-	-2001-	-1999-	-2000-	-2001-
AgraTech 1-1	28.1	30.8	26.2	60.5	58.6	58.5	9.5	11.4	15.3
AgraTech 201	27.3	27.1	27.3	60.4	58.6	61.4	12.3	14.3	11.3
Agra Tech VC-2	45.7	38.3	37.8	45.2	50.5	50.2	9.1	11.2	12.0
Andru 93	20.8	26.7	21.0	64.5	57.1	61.1	14.7	16.2	17.9
C156-4	1		52.6			40.4			7.0
C-99R	52.3	59.7	52.1	41.8	34.0	41.3	5.9	6.3	6.6
Exp 9899-02	—		17.7			68.8			13.5
Florida MDR 98		61.4	41.5		32.4	51.5	_	6.2	7.0
Florunner	24.9	21.3	26.8	62.6	64.2	61.1	12.5	14.5	12.1
GA 982508	—		48.7	<u>:</u>		42.7			8.6
Georgia Bold	42.8	49.1	39.7	50.4	44.1	49.3	6.8	6.8	11.1
Georgia Green	24.6	37.8	26.1	65.1	54.5	64.2	10.3	7.7	9.7
Georgia Hi-O/L		70.4	73.0		22.8	23.3		6.8	3.7
Gregory		81.0	78.1	21.7	15.4	18.3	4.4	3.6	3.6
NC 7	65.9	72.7	59.8	28.1	24.0	32.2	6.0	3.3	8.0
NC 12C	74.5	74.8	71.2	21.8	21.0	22.6	3.7	4.1	6.2
NC-V11	61.1	57.7	61.7	33.3	36.3	31.4	5.6	6.1	6.9
Southern Runner	23.3	35.4	23.4	67.6	58.1	65.3	9.1	6.5	11.3
SunOleic 97R	35.0	29.7	34.6	56.2	57.1	54.8	8.8	13.2	10.6
VA 98R	53.1	63.2	60.6	40.7	28.9	32.0	6.2	8.0	7.4
VA-C 92R	62.5	63.2	49.4	33.0	30.4	41.6	4.5	6.3	9.0
ViruGard	46.3	50.4	44.9	47.3	44.7	46.7	6.4	4.9	8.4
VT 940419P	—		43.7			45.5			10.8

<sup>&</sup>lt;sup>1</sup> Not tested.

Table 8. Occurrence of Tomato Spotted Wilt Virus Hits in the Irrigated Peanut Variety Test at the Wiregrass Research and Extension Center, Headland, Alabama, 2001

			—Hits per plot 1—		
Variety or line	Rep I	Rep II	Rep III	Rep IV	Avg.
GA982508	4	2	7	6	4.75
ViruGard	9	2	3	8	5.50
C156-47	3	9	2	11	6.25
NC-V11	3	7	6	11	6.75
C-99R		8	10	4	7.50
Georgia Green	6	6	16	7	8.75
AgraTech VC-2	11	7	14	7	9.75
AgraTech 201	6	11	13	12	10.50
Georgia Hi-O/L	8	10	10	14	10.50
Exp 9899-02	6	21	8	12	11.75
Gregory		7	17	18	11.75
Southern Runner	10	21	8	8	11.75
Andru 93		7	14	7	12.75
AgraTech 1-1	12	12	16	15	13.75
VT 940419P	9	18	14	17	14.50
VA 98R		14	11	18	14.75
VA-C 92R		10	6	21	14.75
Florida MDR 98		20	15	11	15.50
NC7	9	15	25	17	16.50
SunOleic 97R		14	18	23	18.00
Georgia Bold	16	19	21	22	19.50
Florunner		19	25	23	20.00
NC-12C	21	26	21	13	20.25
Overall Average					12.49
CV(%)					39.00
LSD (.05)					6.81

<sup>&</sup>lt;sup>1</sup> Hits equal length of row up to one linear foot with severely diseased plants.

Table 9. Occurrence of White Mold Hits in the Irrigated Peanut Variety Test at the Wiregrass Research and Extension Center, Headland, Alabama, 2001

			—Hits per plot 1—		
Variety or line	Rep	Rep	Rep	Rep	Avg.
	I	II	III	IV	
AgraTech 1-1	0	0	1	2	0.75
VA-C 92R	1	0	1	1	0.75
VT 940419P	2	0	0	1	0.75
GA 982508	0	2	0	2	1.00
ViruGard	1	1	0	2	1.00
C-99R	0	2	3	0	1.25
NC7	1	1	1	2	1.25
C156-47	2	1	0	3	1.50
AgraTech VC-2	2	2	2	1	1.75
Exp 9899-02	0	3	2	2	1.75
Florida MDR 98	2	3	2	1	2.00
Gregory	1	5	1	2	2.25
Georgia Hi-O/L		4	0	5	2.50
Georgia Bold		2	7	1	3.00
Andru 93	2	2	3	6	3.25
Georgia Green	2	4	4	3	3.25
AgraTech 201	1	8	2	3	3.50
SunOleic 97R	3	6	3	3	3.75
Southern Runner	3	7	5	4	4.75
NC-12C	10	5	5	5	6.25
NC-V11	8	7	5	8	7.00
Florunner	4	7	7	11	7.25
VA 98R	11	9	7	10	9.75
Overall Average					3.03
CV(%)					
LSD(.05)					

<sup>&</sup>lt;sup>1</sup> Hits equal length of row up to one linear foot with severely diseased plants.

TABLE 10. OCCURRENCE OF LEAFSPOT IN THE IRRIGATED PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

Variety or line         Rep I         Rep II         Rep III         Rep IIII         Rep IIII         Rep IIII         Rep IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII			—Rating per plot <sup>1</sup> ——			
T	Avg.	Rep		Rep	Rep	Variety or line
Georgia Bold       2       2       2       3         GA 982508       2       2       2       3       3         Georgia Green       2       2       2       4       NC-V11       3       -       4       2         Andru 93       2       3       3       4       2         C-99R       3       4       3       2         NC7       3       3       3       3         SunOleic 97R       4       3       3       2         C156-47       3       4       3       3       3         Florida MDR 98       3       3       3       4         NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         XP-92R       3       4       4       4         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       4         ViruGard       3       4       4 <td< th=""><th>11,8.</th><th>IV</th><th>III</th><th>_</th><th>I</th><th>•</th></td<>	11,8.	IV	III	_	I	•
GA 982508       2       2       3       3         Georgia Green       2       2       2       4         NC-V11       3       -       4       2         Andru 93       2       3       3       4         C-99R       3       4       3       2         NC7       3       3       3       3         SunOleic 97R       4       3       3       2         C156-47       3       4       3       3       3         Florida MDR 98       3       3       3       4         NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C92R       3       4       4       4         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       4         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4     <	2.00	2	2	2	2	Southern Runner
GA 982508       2       2       3       3         Georgia Green       2       2       2       4         NC-V11       3       -       4       2         Andru 93       2       3       3       4         C-99R       3       4       3       2         NC7       3       3       3       3         SunOleic 97R       4       3       3       2         C156-47       3       4       3       3       3         Florida MDR 98       3       3       3       4       4       2         VT 940419P       4       3       4       4       2       2       VT 940419P       4       3       4       4       4       3       3       3	2.25	3	2	2	2	Georgia Bold
NC-V11       3       -       4       2         Andru 93       2       3       3       4         C-99R       3       4       3       2         NC7       3       3       3       3         SunOleic 97R       4       3       3       2         C156-47       3       4       3       3         Florida MDR 98       3       3       3       4         NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C92R       3       4       4       3         Exp 9899-02       4       3       4       4         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       4         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         <	2.50	3	3	2		
NC-V11       3       -       4       2         Andru 93       2       3       3       4         C-99R       3       4       3       2         NC7       3       3       3       3         SunOleic 97R       4       3       3       2         C156-47       3       4       3       3         Florida MDR 98       3       3       3       4         NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C92R       3       4       4       3         Exp 9899-02       4       3       4       4         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       4         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         <	2.50	4	2	2	2	Georgia Green
C-99R       3       4       3       2         NC7       3       3       3       3         SunOleic 97R       4       3       3       2         C156-47       3       4       3       3         Florida MDR 98       3       3       3       4         NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C92R       3       4       4       3         Exp 9899-02       4       3       4       4       4         Florunner       3       4       4       4       4         Georgia Hi-O/L       4       4       4       4       4         AgraTech VC-2       4       4       4       4       4         Gregory       4       4       4       4       4         VA 98R       4       5       4       3	3.00	2	4	-		
NC 7       3       3       3       3         SunOleic 97R       4       3       3       2         C156-47       3       4       3       3         Florida MDR 98       3       3       3       4         NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C 92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       4         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.00	4	3	3	2	Andru 93
SunOleic 97R       4       3       3       2         C156-47       3       4       3       3         Florida MDR 98       3       3       3       4         NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       4         AgraTech VC-2       4       4       4       4         AgraTech VC-2       4       4       4       4         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Va 98R       4       5       4       3	3.00	2	3	4	3	C-99R
C156-47 3 4 3 3 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4	3.00	3	3	3	3	NC7
Florida MDR 98 3 3 4 4 2 2 VT 940419P 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3.00	2	3	3	4	SunOleic 97R
NC-12C       3       4       4       2         VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C 92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.25	3	3	4	3	C156-47
VT 940419P       4       3       3       3         AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C 92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.25	4	3	3	3	Florida MDR 98
AgraTech 1-1       3       4       4       3         AgraTech 201       3       5       3       3         VA-C 92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.25	2	4	4	3	NC-12C
AgraTech 201       3       5       3       3         VA-C 92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.25	3	3	3	4	VT 940419P
AgraTech 201       3       5       3       3         VA-C 92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.50	3	4	4	3	AgraTech 1-1
VA-C 92R       3       4       4       3         Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.50	3	3	5		
Exp 9899-02       4       3       4       -         Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.50	3	4	4		
Florunner       3       4       4       4         Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.67	_	4	3		
Georgia Hi-O/L       4       4       4       3         ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.75	4	4	4		
ViruGard       3       4       4       4         AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.75	3	4	4		
AgraTech VC-2       4       4       4       4         Gregory       4       4       4       4         VA 98R       4       5       4       3	3.75	4	4	4		
Gregory 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4.00	4	4	4		
VA 98R 4 5 4 3	4.00	4	4	4		
Overall Average	4.00	3	4	5		
	3.24					Overall Average
CV(%)						
LSD(.05)						· /

<sup>&</sup>lt;sup>1</sup> Rating 1 (lowest) to 10 (highest)

## TABLE 11. YIELD OF DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

Variety or line	Yield <i>lb/a</i>	Variety or line	Yield <i>lb/a</i>
C-99R Georgia Green C156-47 Exp 9899-02 GA 982508		AgraTech 201 ViruGard Georgia HI-O/L Southern Runner Florunner	4,574 4,420 4,256
Overall Average	•••••		

## TABLE 12. TWO-YEAR AVERAGE YIELD ON DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2001

Variety or line	Yield lb/a	Variety or line	Yield <i>lb/a</i>
Georgia Green		Southern Runner	
C-99R	3.739	AgraTech 201	
ViruGard		Florunner	2,800
Overall Average			3,456
CV(%)			
LSD (.05)			

# TABLE 13. AVERAGE SIZE AND GRADE ON DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

Variety or line	SMKRS	SMKRS	SS	TSMK	OK	DK	TK	Hulls
	count/lb	pct	pct	pct	pct	pct	pct	pct
AgraTech 201	1,104	64	6	70	7	0	77	23
C156-47	912	68	6	74	4	0	78	22
C-99R	736	72	4	76	2	0	78	22
Exp 9899-02	1,200	63	2	65	7	0	72	28
Florunner	1,040	65	3	68	7	0	75	25
GA 982508	928	70	4	74	4	0	78	22
Georgia Green	1,104	68	3	71	7	0	78	22
GK 7 High Oleic	752	66	7	73	3	0	76	24
Southern Runner		71	4	75	2	0	77	23
ViruGard	976	66	6	72	5	0	77	23

TABLE 14. TWO-YEAR AVERAGE SIZE AND GRADE ON DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2001

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	1,201	59	4	63	10	0	73	27
C-99R	740	69	5	74	2	0	76	24
Florunner	1,048	60	3	63	10	0	73	27
Georgia Green	1,080	64	3	67	9	0	76	24
Southern Runner	893	68	3	71	4	0	75	25
ViruGard	901	64	5	69	5	0	74	26

TABLE 15. OCCURRENCE OF TOMATO SPOTTED WILT VIRUS HITS IN THE DRYLAND PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

			—Hits per plot 1——		
Variety or line	Rep I	Rep II	Rep III	Rep IV	Avg.
Georgia Hi-O/L	2	2	1	1	1.50
C-99R		2	0	1	1.60
C156-47	4	1	2	1	2.00
GA982508	3	1	2	9	3.75
Georgia Green	1	5	5	8	4.75
Southern Runner		7	3	5	5.00
ViruGard	10	4	5	2	5.25
Exp 9899-02	4	7	7	4	5.50
AgraTech 201		9	4	8	7.00
Florunner		10	16	7	12.75
Overall Average					3.98
CV(%)					57.10
LSD (.05)					4.06

<sup>&</sup>lt;sup>1</sup> Hits equal length of row up to one linear foot with severely diseased plants.

TABLE 16. OCCURRENCE OF WHITE MOLD HITS IN THE DRYLAND PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

		Hits per plot <sup>1</sup>						
Variety or line	Rep	Rep	Rep	Rep	Avg.			
·	I	II	Ш	IV	C			
Exp 9899-02	0	0	0	0	0.00			
ViruGard	0	0	0	0	0.00			
GA 982508	0	0	1	0	0.25			
Georgia Hi-O/L	0	0	1	0	0.25			
Georgia Green		1	1	0	0.50			
AgraTech 201	1	0	0	2	0.75			
C156-47		0	0	2	0.75			
Southern Runner	0	2	0	2	1.00			
C-99R	2	1	0	4	1.75			
Florunner	2	1	1	4	2.00			
Overall Average					0.73			
CV(%)								
LSD(.05)					1.26			

<sup>&</sup>lt;sup>1</sup> Hits equal length of row up to one linear foot with severely diseased plants.

TABLE 17. OCCURRENCE OF LEAFSPOT IN THE DRYLAND PEANUT VARIETY TEST AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

		Rating per plot <sup>1</sup>							
Variety or line	Rep	Rep	Rep	Rep	Avg.				
•	I	II	Ш	IV					
Exp 9899-02	3	3	3	3	3.00				
GA 982508	2	3	3	4	3.00				
AgraTech 201	3	3	4	3	3.25				
Georgia Green	4	2	4	4	3.50				
Georgia Hi-O/L	2	5	4	5	4.00				
C156-47		5	4	5	4.50				
Florunner	4	5	5	4	4.50				
ViruGard	4	5	4	5	4.50				
C-99R	4	5	5	5	4.75				
Southern Runner		5	5	5	4.75				
Overall Average					3.98				
CV(%)					17.60				
LSD(.05)					1.01				

<sup>&</sup>lt;sup>1</sup> Rating 1 (lowest) to 10 (highest).

### TABLE 18. YIELD OF LATE-PLANTED DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

Variety or line	Yield	Variety or line	Yield
-	lb/a	-	lb/a
Georgia Green	2,647	C156-47	
AgraTech 201	2,252	ViruGard	
Exp 9899-02	2,188		
Overall Average			
CV(%)			

### TABLE 19. TWO-YEAR AVERAGE YIELD OF LATE-PLANTED DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2001

Variety or line	Yield	Variety or line	Yield
	lb/a	-	lb/a
Georgia Green		ViruGard-1	1,079
Overall Average			55.40

TABLE 20. AVERAGE SIZE AND GRADE ON LATE-PLANTED DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	928	55	16	71	4	0	75	25
C156-47	880	58	16	74	2	0	77	23
Exp 9899-02	1120	60	9	69	4	0	73	27
Georgia Green	944	60	10	70	6	0	76	24
ViruGard	752	60	15	75	1	0	76	24

TABLE 21. TWO-YEAR AVERAGE SIZE AND GRADE ON LATE-PLANTED DRYLAND PEANUT VARIETIES AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2000-2001

Variety or line	SMKRS count/lb	SMKRS pct	SS pct	TSMK pct	OK pct	DK pct	TK pct	Hulls pct
AgraTech 201	980	52	18	70	3	0	73	27
Georgia Green	988	58	14	72	4	0	76	24
ViruGard	840	59	15	74	1	1	76	24

		PLAN	TING RATE CHAR	RT <sup>1</sup>		
Seed	Seed	Lbs.	Seed	Lbs.	Seed	Lbs.
per	per	per	per	per	per	per
pound	foot	acre	foot	acre	foot	acre
600	5	121	6	145	7	178
625	5	116	6	140	7	171
650	5	112	6	134	7	164
675	5	108	6	129	7	158
700	5	104	6	124	7	152
725	5	100	6	120	7	147
750	5	97	6	116	7	142
775	5	94	6	112	7	138
800	5	91	6	109	7	133
825	5	88	6	106	7	129
850	5	85	6	102	7	125
875	5	83	6	100	7	122
900	5	81	6	97	7	118
925	5	78	6	94	7	115
950	5	76	6	92	7	112
975	5	74	6	89	7	109
1000	5	73	6	87	7	107
1025	5	71	6	85	7	104
1050	5	69	6	83	7	102
1075	5	68	6	81	7	99
1100	5	66	6	79	7	97

<sup>&</sup>lt;sup>1</sup> Pounds of peanut seed at various seed count per pound required to plant 1 acre at five, six, or seven seed per foot of row with single row width spacing. (For twin-rows at 36-inch centers, divide seed per foot for single row by two to determine seed per foot for each twin-row.)

To determine pounds per acre at 36-inch row spacing, use the following formula:

- (A) Seed per foot x linear feet in 1 acre = pounds per acre Seed count per pound
- (B) To determine linear feet in one acre at 36-inch row spacing:
  - 43,560 square feet per acre = 14,520 linear feet in 1 acre 3 square feet
- (C) Example:

6 seed per foot x 14,520 linear feet = 109 pounds per acre 800 seed per pound

Tests Duration Daily Rainfall Data Recorded at the Wiregrass Research and Extension Center, Headland, Alabama, 2001

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	in	in	in	in	in	in	in	in
1	_	_	0.68	0.09	0.02	0.24	_	
2		_	0.38	0.04	_	0.37		
3			_	_		1.13		
4	2.19					_		
5	0.25		0.87					
6				0.01	0.64	0.07	0.10	
7					0.62	0.74	0.63	
8					0.05	0.01		
9			0.41		0.33			
10			0.40		0.05			
11			1.13		0.24			
12		0.88	3.48	0.08	0.25			
13		0.08	0.02	0.11	1.65		0.05	
14			0.04	0.35	0.13		0.68	
15					0.06			
16	0.04							
17			0.02					
18					0.30			
19								
20		0.53			0.18			
21		0.19		0.35				0.02
22				0.13				0.01
23		0.24	0.48					0.06
24				0.02		0.84		1.22
25	0.03			0.19		0.32		0.45
26				0.39	0.21			
27				0.03				
28				0.36	0.04			
29		0.16	2.91	0.88	0.19			
30		_	0.73	0.06	_			
31	_		<del></del>	0.77			<del></del>	
TOTALS <sup>1</sup>	2.51	2.08	11.55	3.40	4.71	3.72	1.46	1.76
17C ( 1 1 11	· C 11 C	11/1 1 3		21 10 : 2	000 1001	1000 20 15		

<sup>&</sup>lt;sup>1</sup>Total daily rainfall from April through November, 2001 = 31.19 in; 2000 = 19.81 in; 1999 = 28.15 in.

Tests Duration Daily Maximum Temperatures Recorded at the Wiregrass Research and Extension Center, Headland, Alabama, 2001

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	${}^{o}F$	${}^oF$	${}^oF$	${}^o F$	${}^o F$	${}^o F$	${}^oF$	${}^{o}F$
1	73	81	93	82	91	92	75	78
2	69	82	81	89	90	90	78	84
3	77	82	90	92	90	87	84	84
4	75	85	92	92	90	88	85	84
5	70	85	95	93	92	88	84	84
6	80	88	91	92	86	90	83	78
7	83	90	92	94	82	91	83	75
8	84	84	92	95	90	91	83	78
9	81	84	86	95	92	90	79	78
10	85	86	83	96	90	90	80	79
11	88	87	80	95	92	90	80	79
12	85	89	75	92	89	90	82	76
13	87	87	86	95	85	88	83	77
14	89	85	86	93	87	87	82	72
15	86	87	92	90	87	85	78	75
16	75	90	91	91	92	87	82	76
17	77	94	89	91	93	82	80	77
18	67	94	90	93	91	84	71	78
19	67	92	91	95	93	86	72	80
20	72	91	92	97	*1	87	79	76
21	80	86	90	93	*	90	84	71
22	83	89	92	89	*	90	86	65
23	83	82	87	96	90	92	85 87	71
24	86	84	86	95	90	90	87	65
25	85	88	87	90	93	90	87	79
26	77	85	89	85	94	82	80	80
27	75	86	89	91	95	72	72	82
28	81	89	92	90	94	80	62	80
29	85	86	92	92	90	82	60	79
30	88	89	88	91	90	83	70	79
31		91		93	90		73	

Data not collected.

TESTS DURATION DAILY MINIMUM TEMPERATURES RECORDED AT THE WIREGRASS RESEARCH AND EXTENSION CENTER, HEADLAND, ALABAMA, 2001

DATE	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
	°F	°F	°F	°F	°F	°F	°F	<i>◦F</i>
1	51	64	60	72	76	69	50	63
2	50	63	69	78	75	72	51	67
3	53	65	75	88	73	71	55	63
4	60	65	71	<i>7</i> 7	73	75	57	61
5	58	61	73	78	75	71	58	63
6	60	60	68	80	73	71	67	52
7	56	65	72	76	72	71	46	61
8	63	64	73	76	75	77	50	58
9	63	60	70	78	75	68	55	54
10	65	65	70	76	78	71	57	46
11	66	69	70	76	71	70	60	48
12	68	63	67	79	73	68	67	58
13	69	61	70	75	71	64	67	52
14	65	60	74	67	72	65	67	56
15	69	61	71	72	70	62	54	55
16	60	64	69	67	75	65	52	49
17	52	67	76	72	79	62	41	52
18	43	71	70	72	73	65	40	50
19	39	66	72	77	73	70	46	56
20	52	69	72	78	70	75	53	58
21	53	69	72	74	73	70	59	53
22	60	70	79	73	64	61	57	54
23	61	54	69	72	70	75	58	59
24	65	68	69	75	73	70	61	59
25	54	63	70	74	69	54	68	65
26	54	56	75	75	78	49	48	70
27	50	58	72	78	70	50	40	63
28	51	59	72	73	77	54	36	62
29	55	69	72	75	75	57	36	62
30	59	68	70	80	70	50	39	56
31	_	72	_	76	73	_	42	

#### **DESCRIPTIONS OF 2001 PEANUT VARIETY TEST ENTRIES**

#### 1. AgraTech 1-1

Developed by Dr. Kim Moore, AgraTech Seeds Inc. Released in 1999 with variety protection to be applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity is approximately 15 days earlier than Florunner. Seed and pod size slightly larger than Florunner, with high oleic/linoleic fatty acid ratio and typical runner growth habit. Has shown tolerance to tomato spotted wilt virus.

#### 2. AgraTech 201

Developed by Dr. Kim Moore, AgraTech Seeds Inc. Released in 1999 with variety protection to be applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity range is same as Florunner with similar seed and pod size. The oleic/linoleic fatty acid ratio is high with typical runner growth habit with erect mainstem. Carries tolerance to tomato spotted wilt virus with thin hulls and dark green foliage.

#### 3. AgraTech VC 2

Developed by Dr. Kim Moore, AgraTech Seeds Inc. Released in 1999 with variety protection to be applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity is about the same as NC 7 and has smaller seed and pod size than NC 7. The oleic/linoleic fatty acid ratio is high with runner type growth habit. No known insect resistance, but has shown some tolerance to tomato spotted wilt virus. Has slightly less vine growth than NC 7.

#### 4. Andru 93

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1993 and a protected variety to be sold only as a class of certified seed. Earlier in maturity by seven to ten days than Florunner. Has slightly larger seed and pod size than Florunner, normal oleic/linoleic fatty acid ratio, and typical runner growth habit. Has no known disease or insect resistance. Released primarily due to earliness and high yields. Has prominent center stem and more jumbo kernels than Florunner.

#### 5. C156-47

An unreleased advanced breeding line developed by Dr. Corley Holbrook, ARS-USDA, Tifton, Georgia. Same maturity range as Florunner with similar seed and pod size as Florunner. Has runner growth habit with fairly prominent mainstem. Good yield and grade potenial with resistance to tomato spotted wilt virus.

#### 6. C-99R

Developed by Dr. Dan Gorbet, Florida Agricultural Experiment Station. Released in 1999 with variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. The maturity range is 10 to 14 days later than Florunner with large seed and pod size and normal oleic/linoleic fatty acid ratio. Runner growth habit with resistance to late leafspot, white mold, and tomato spotted wilt virus. Other characteristics include good yields and grades with multiple disease resistance (as noted); similar to Florida MDR 98 but more normal oleic fatty acid content (55 to 59%) with somewhat darker green foliage.

#### 7. Exp 9899-02

An unreleased advanced breeding line developed by Dr. Kim Moore, AgraTech Seeds Inc., Ashburn, Georgia. Same maturity range as Florunner with seed and pod size smaller than Florunner. High oleic/linoleic fatty acid ratio with typical runner growth habit with erect mainstem. Resistant to tomato spotted wilt virus.

#### 8. Florida MDR 98

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1998. Variety Protection has been applied for under the 1994 Amendment of the Plant Variety Protection Act. (MDR stands for Multiple Disease Resistance.) Later in maturity than Florunner by approximately 15 days. Larger seed and pod size than Florunner and has mid-level oleic/linoleic fatty acid ratio. Has better resistance than Southern Runner to late leafspot, white mold, rust, tomato spotted wilt virus, and web blotch. No known insect resistance. Released due to significantly larger seed, better yields and grade than Southern Runner. Has larger leaves than Southern Runner, but similar pod venation and seed coat color.

#### 9. Florunner

Developed by Dr. Al Norden, University of Florida Agricultural Experiment Station. Released in 1969. Matures in approximately 135 days and has normal oleic/linoleic fatty acid ratio. Until the occurrence of tomato spotted wilt virus, Florunner had been the industry standard of comparison with respect to yield for runner varieties. It is still the standard of comparison for many milling characteristics for runner varieties. No known disease or insect resistance.

#### 10. GA 952508

An unreleased advanced breeding line developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Same maturity range as Florunner with seed and pod size slightly larger than Florunner. High oleic/linoleic fatty acid ratio with runner growth habit and vine growth more consistent with Florunner than Georgia Green. Resistant to tomato spotted wilt virus.

#### 11. Georgia Bold

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 1997 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with larger seed and pod size with slightly higher oleic/linoleic fatty acid ratio. No known insect resistance, but has moderate tolerance to tomato spotted wilt virus. Georgia Bold has excellent yield and grade combination with significantly larger seed size than Florunner for both seed weight and percentage of extra large kernels.

#### 12. Georgia Green

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 1995 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with seed and pod size similar to or slightly more round than Florunner. Normal oleic/linoleic fatty acid ratio with intermediate growth habit and considerably less vine growth than Florunner. Resistant to tomato spotted wilt virus, but carries no known insect resistance. Georgia Green has proven to have yield stability across a wide range of different environments under both irrigated and non-irrigated conditions and in both single and twin row patterns.

#### 13. Georgia Hi-O/L

Developed by Dr. Bill Branch, University of Georgia Agricultural Experiment Station. Released in 1999 with plant variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Same maturity range as Florunner with larger seed and pod size, high oleic/linoleic acid ratio and intermediate growth habit. Resistant to tomato spotted wilt virus.

#### 14. Gregory

Developed by Dr. Tom Isleib, North Carolina Agricultural Research Service. Released in 1997 with plant variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity range is earlier than NC 7 with larger seed and pod size. Has normal oleic/linoleic fatty acid ratio and intermediate growth habit. The only known resistances of Gregory are to CBR (this is very slight: i.e., it is less susceptible than NC 7) and to tomato spotted wilt virus (6.5% infection rate compared with 9.2% for NC-V11). Like NC 7 and NC 12C, Gregory is extremely susceptible to sclerotinia blight. Gregory has a pink seed coat.

#### 15. NC 7

Developed by North Carolina Agricultural Research Service. Released in 1978 and protected under the 1994 Amendment of the Plant Variety Protection Act. Has become the industry standard for Virginia variety development comparisons as Florunner has for Runner varieties. Maturity range is early compared with other Virginia varieties. Has normal oleic/linoleic fatty acid ratio and intermediate growth habit. Highly susceptible to early leafspot, CBR, and sclerotinia blight but has moderate tolerance to tomato spotted wilt virus. No known insect resistance. It is preferred for the in-shell export market due to its large pod and size.

#### 16. NC 12C

Developed by North Carolina Agricultural Research Service. Released in 1996 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity group as NC 7 with about the same seed and pod size, normal oleic/linoleic fatty acid ratio, and intermediate growth habit. Intermediate resistance to CBR (similar to NC 10C), low level of resistance to early leafspot (similar to NC 6), low level of tolerance to tomato spotted wilt virus, and highly susceptible to sclerotinia blight. No known insect resistance. Pod and seed characteristics similar to NC 7.

#### 17. NC-V11

Developed by North Carolina Agricultural Research Service, Virginia Agricultural Experiment Station, and USDA-ARS. Released in 1998 and protected under the Plant Variety Protection Act. Maturity range same as NC 7 with smaller seed and pod size, normal oleic/linoleic fatty acid ratio, and runner growth habit. Has field tolerance to tomato spotted wilt virus, low level of resistance to CBR, and is susceptible to early leafspot and sclerotinia blight. No known insect resistance. Bright shapely pods make NC-V11 one of the three varieties preferred by VC area shellers (VA 93B first, NC 10C second, NC-V11 third).

#### 18. Southern Runner

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1986 and protected under the Plant Variety Protection Act. Matures 15 to 20 days later than Florunner with smaller seed and pod size. Has normal oleic/linoleic fatty acid ratio with runner growth habit. Has resistance to late leafspot, white mold, rust, and tomato spotted wilt virus. Possibly has some resistance to Southern corn rootworm. Possibly has more drought tolerance and usually has lower LSK and less alfatoxin than Florunner. Tan seedcoat and prominent exterior hull venation.

#### 19. SunOleic 97R

Developed by Dr. Dan Gorbet, University of Florida Agricultural Experiment Station. Released in 1997 and protected under the 1994 Amendment of the Plant Variety Protection Act. Same maturity group as Florunner, with about the same seed and pod size. High oleic/linoleic fatty acid ratio with typical runner growth habit. No known disease or insect resistance. Generally very similar to Sunrunner, but with high oleic oil chemistry.

#### 20. VA 98R

Developed by Virginia Agricultural Experiment Station and USDA-ARS. Released in 1998 with plant variety protection applied for under the 1994 Amendment of the Plant Variety Protection Act. Maturity range is early, similar to NC 7 with smaller seed and pod size, normal oleic/linoleic fatty acid ratio, and runner growth habit. No known insect or disease resistance. However, early data indicate that it might be less susceptible to sclerotinia blight than some Virginia type varieties (NC 7, NC 10C, Gregory, and NC 12C). Other characteristics are high yield potential with excellent pod characteristics for in-shell processing (bright pod color and typical peanut shape). Its runner growth habit and prominent erect mainstem make for easier digging with rows being easily determined.

#### 21. VA-C 92R

Developed by Virginia Agricultural Experiment Station, North Carolina Agricultural Research Service, and USDA-ARS. Released in 1992 and protected under the Plant Variety Protection Act. Maturity range same as NC 7 with smaller seed and pod size and normal oleic/linoleic fatty acid ratio. Has moderate field tolerance to tomato spotted wilt virus and is susceptible to early leafspot. Has intermediate growth habit and uniform pink seed. Its high yield potential made it very popular in the VC area until area shellers voiced concerns over its relatively dark hulls.

#### 22. ViruGard

Developed by Dr. Ernest Harvey, AgraTech Seeds Inc. Released in 1997 under the 1994 Amendment of the Plant Variety Protection Act. Maturity range is earlier than Florunner with larger seed and pod size, mid-level oleic/linoleic fatty acid ratio, and intermediate growth habit. Generally smaller leaflet size than Florunner. No known insect resistance. Resistant to tomato spotted wilt virus. Seedcoat color lighter than Florunner.

#### 23. VT 940419P

An unreleased advanced breeding line from the Virginia Polytechnic Institute and State University. It was developed by Walt Mozingo at the Tidewater Agricultural Research and Extension Center in Suffolk. It is a Virginia market type with maturity similar to NC 7, and has high yield and dollar value return per acre.

#### **SOURCES OF SEED**

Dr. W. D. Branch University of Georgia Department of Crop and Soil Sciences Coastal Plain Experiment Station Tifton, Georgia 31793 GA952508

GA952508 Georgia Bold Georgia Green Georgia Hi-O/L

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> Andru 93 C-99R Florida MDR 98 Florunner Southern Runner SunOleic 97R

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ViruGard

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- Main Agricultural Experiment Station,
- Alabama A&M University
- E. V. Smith Research Center, Shorter.
  - Tennessee Valley Research and Extension Center, Belle Mina
  - Sand Mountain Research and Extension Center, Crossville
  - North Alabama Horticulture Station, Cullman
  - 4. Upper Coastal Plains Station, Winfield
  - Chilton Area Horticulture Station, Clanton
  - 6. Piedmont Research Station, Camp Hill
  - 7. Prattville Experiment Field, Prattville
  - Black Belt Research and Extension Center, Marion Junction
  - Lower Coastal Plain Research Station, Camden
  - Monroeville Experiment Field, Monroeville
- Wiregrass Research and Extension Center, Headland
- Brewton Experiment Field, Brewton
- Ornamental Horticulture Station, Spring Hill
- Gulf Coast Research and Extension Center, Fairhope