

‘PP-1’ Ornamental Perennial *Arachis*

Wayne W. Hanna¹ and Brian M. Schwartz*Department of Crop and Soil Sciences, University of Georgia, Tifton Campus, 2360 Rainwater Road, Tifton, GA 31793*

Ann R. Blount, Gary Knox, and Cheryl Mackowiak

*North Florida Research and Education Center, University of Florida, 155 Research Road, Quincy, FL 32351**Additional index words.* *glabrata*, ornamental peanut, plant breeding

‘PP-1’ (PP27536) ornamental perennial *Arachis* was approved for release by the University of Georgia College of Agricultural and Environmental Sciences in 2012. We established ‘PP-1’ in a test at Tifton, GA, with five perennial peanut cultivars, Ecoturf and Arblick, Florigraze, and Arbrook from the University of Florida. Genotypes were evaluated for flower number, plant color, plant height, turf quality, percent ground-cover, canopy density, pepper spot and leaf scorch [both caused by *Leptosphaerulina crassiasca* (Sechet) C.R. Jackson and D.K. Bell], leaf length, leaf width, leaf area, spring green-up, freeze damage, and *Peanut stunt virus*. ‘PP-1’ reaches a height of about 20 cm; produces dense, dark-green leaves; and produces an abundance of flowers. Wing petals are Yellow-Orange Group 14D, and standard petals transition from Orange Group 24C in the center to Yellow-Orange Group 14 toward the margins. Data for each variable were analyzed statistically by analyses of variance. Least significance differences at $P \leq 0.05$ were used for mean separation.

Origin

‘PP-1’ is a vigorous *Arachis glabrata* Benth. clone (Supplemental Fig. 1) volunteering for more than 50 years on the University of Georgia, Tifton Campus, Tifton, GA, next to a field used during the 1940s to test perennial peanut introductions. It has developed (under no cultivation) a natural uniform stand 7 m wide between U.S. Route 41 (limited on the west side by Department of Transportation herbicides) and a University of Georgia field (limited on the east side by herbicides and cultivation) that is 123 m long. Pictures of ‘PP-1’ were sent to Dr. Charles

Received for publication 19 July 2018. Accepted for publication 6 Sept. 2018.

We express our appreciation to the University of Georgia Research Foundation and the Georgia Seed Development Commission for financial support.

The senior author acknowledges the many discussions he had with Myron Parker (deceased) regarding the ornamental potential of ‘PP-1’. We appreciate the cooperation and/or assistance of Larry Baldree, Leanna Leach, Ken Quesenberry, Mimi Williams, and Kevin Kenworthy. We also express our thanks to Scott Tubbs and Nino Brown for editorial suggestions.

¹Corresponding author. E-mail: whanna@uga.edu.

Simpson (an expert on *Arachis* germplasm) at Texas A&M University to help with identification. He indicated that he received an introduction (labeled A42) from Dr. Ray Hammons in 1969 that appeared to have narrow leaves similar to ‘PP-1’. Dr. Simpson sent a sample of A42, which we included in a comparison test with ‘PP-1’. A42 has wider leaves (Table 1) and more leaf area per leaf (Table 2) than ‘PP-1’. Leaf lengths were similar for the two genotypes (Table 3).

An amplified fragment length polymorphism study titled “Genetic Variability of Cultivated Rhizome Peanut” (Maas et al., 2010) showed ‘PP-1’ most related to ‘Florigraze’ (Prine et al., 1986), a broadleaf type. Morphologically, ‘PP-1’ is most similar to Natural Resources Conservation Service ‘Brooksville 68’ (Anonymous, 2006), commonly referred to as ‘Pointed Leaf’, for which planting stock was not available when we established the 2006 test at Tifton.

‘PP-1’ produces infrequent viable seed. Forty plants produced from seed of ‘PP-1’ showed a wide range of morphologic types, none with the vigor and persistence of ‘PP-1’ (data not reported). Therefore, vegetative propagation is the means for establishing this cultivar to maintain its purity. ‘PP-1’ probably arose from either an outcross or a superior genetic recombination from an *Arachis glabrata* Benth. introduction.

Table 1. Leaf width on individual leaves of seven *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, and Quincy, FL.

Entry	Leaf width (mm)					
	Tifton, GA					Quincy, FL
	2009 30 July ^z	2011 31 Aug. ^y	2011 25 July ^x	2012 25 July ^z	2012 29 May ^y	2010 31 Aug. ^w
PP-1	4.0	6.9	7.5	6.0	6.7	7.8
Pointed Leaf		10.0			8.5	8.4
Ecoturf	10.0			11.0		
Arblick	10.0			11.0		
Florigraze	8.0			8.0		
Arbrook	11.0			10.0		
A42			8.8			
LSD-0.05%	1.0	0.5	1.2	1.0	0.9	0.6

^zPlanted 18 May 2006 at Tifton, GA. Four replications per entry. Six leaflets were measured per replication.

^yPlanted 14 June 2011 at Tifton, GA. Seven replications per entry. Three leaflets were measured per replication.

^xPlanted 26 May 2010 at Tifton, GA. Ten replications per entry. Three leaflets were measured per replication.

^wPlanted 10 Apr. 2009 at Quincy, FL. Five replications per entry. Six leaflets were measured per replication.

LSD = least significant difference.

Table 2. Leaf area on individual leaves of seven *Arachis glabrata* genotypes planted at Tifton, GA, and Quincy, FL.

Entry	Leaf area (cm ²)					
	Tifton, GA					Quincy, FL
	2009	2011		2012		2010
	30 July ^z	31 Aug. ^y	25 July ^x	25 July ^z	29 May ^y	21 Aug. ^w
PP-1	3.0	4.6	5.2	4.0	4.2	5.1
Pointed Leaf		6.5			5.3	5.5
Ecoturf	7.0			6.4		
Arblick	6.0			6.1		
Florigraze	6.0			4.7		
Arbrook	11.0			6.7		
A42			7.4			
LSD-0.05%	2.0	1.0	1.5	1.0	0.7	0.8

^zPlanted 18 May 2006 at Tifton, GA. Four replications per entry. Four leaves were measured per replication.

^yPlanted 14 June 2011 at Tifton, GA. Seven replications per entry. Three leaves were measured per replications.

^xPlanted 26 May 2010. Ten replications per entry. Three leaves were measured per replication.

^wPlanted 10 Apr. 2009 Quincy, FL. Five replications per entry. Six leaves were measured per replication.

LSD = least significant difference.

Table 3. Leaf length on individual leaves of seven *Arachis glabrata* genotypes planted on 18 May 2006 and 2010 at Tifton, GA, and Quincy, FL.

Entry	Leaf length (mm)					
	Tifton, GA					Quincy, FL
	2009	2011		2012		2010
	30 July ^z	31 Aug. ^y	25 July ^x	25 July ^z	29 May ^y	21 Aug. ^w
PP-1	25.0	31.6	34.3	22.0	30.2	36.6
Pointed Leaf		27.5			27.8	35.5
Ecoturf	26.0			18.0		
Arblick				17.0		
Florigraze	28.0			18.0		
Arbrook	36.0			21.0		
A42			38.1			
LSD-0.05%	3.0	4.1	5.0	2.0	2.0	2.7

^zPlanted 18 May 2006 at Tifton, GA. Four replications per entry. Six leaflets were measured per replication.

^yPlanted 14 June 2011 at Tifton, GA. Seven replications per entry. Three leaflets were measured per replications.

^xPlanted 26 May 2010 at Tifton, GA. Ten replications per entry. Three leaflets were measured per replication.

^wPlanted 10 Apr. 2009 at Quincy, FL. Five replications per entry. Six leaflets were measured per replication.

LSD = least significant difference.

Table 4. Flower number ratings on five *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, on 18 May 2006.

Entry	Flower number ^z												
	2008			2009			2010			2011			
	1 May	1 July	2 Sept.	11 May	11 Aug.	30 Sept.	15 May	1 Sept.	29 Sept.	19 Apr.	25 Apr.	20 Jan.	27 July
PP-1	5.5	1.3	5.8	8.7	3.5	2.0	7.0	5.5	5.0	2.7	6.5	2.0	7.2
Ecoturf	3.0	1.8	2.5	3.0	2.2	1.2	4.2	3.0	2.7	2.0	2.0	2.7	3.5
Arblick	2.0	2.0	2.0	2.0	2.0	1.2	4.0	4.0	2.5	1.7	2.2	2.7	2.7
Florigraze	2.3	2.0	2.0	2.5	2.0	1.7	3.2	3.7	2.0	2.0	1.7	3.0	4.5
Arbrook	1.5	2.0	1.3	2.7	1.5	1.0	2.0	1.7	1.0	1.5	2.0	2.2	2.0
LSD-5%	0.8	0.6	0.5	0.8	0.9	0.5	1.1	1.5	0.7	1.0	0.7	NS	1.1

^z1 = no flowers; 2 = less than 20% coverage; 3 = 20% to 30% coverage; 4 = 30% to 40% coverage; 5 = 40% to 50% coverage; 6 = 50% to 60% coverage; 7 = 60% to 70% coverage; 8 = 70% to 80% coverage; 9 = greater than 80% coverage.

LSD = least significant difference; NS = not significant.

Table 5. Flower number ratings on six *Arachis glabrata* perennial peanut genotypes planted at Quincy, FL, on 10 Apr. 2009.

Entry	Flowers number ^z				
	2010			2011	
	2 Feb.	30 July	30 July ^y	1 June	1 June ^x
PP-1	4.8	4.2	5.6	3.8	3.0
Pointed Leaf	4.8	5.0	6.0	4.0	3.2
Ecoturf	2.0	2.4	2.8	2.6	4.0
Arblick	4.6	5.0	5.8	5.2	6.0
Florigraze	3.8	3.4	3.6	2.8	2.8
Arbrook	3.2	2.0	2.0	2.4	1.6
LSD-5%	0.7	0.9	0.8	1.5	1.4

^zRating for number of flowers on a scale of 1 to 5, where 1 is none and 5 is many.

^yAfter defoliation to 6 cm on 14 July 2010.

^xAfter defoliation to 6 cm on 12 May 2011.

LSD = least significant difference.

cultivars at Tifton in 12 of 13 tests (Table 6). 'PP-1' was in the top statistical group for color at all rating dates in the Florida tests (data not reported). Mature leaf color was classified as Green 144A according to the Royal Horticultural Society color index, fifth edition (Royal Horticultural Society, 2007).

Height of 'PP-1' was similar to 'Ecoturf' on five of six measuring dates in 3 years at Tifton, GA (Table 7). At most measuring dates it was shorter than 'Arblick' and 'Arbrook', and at two of five dates it was taller than 'Florigraze'. At Quincy, FL, 'PP-1', 'Pointed Leaf', and 'Arblick' were similar in height and shorter than 'Ecoturf', 'Florigraze', and 'Arbrook' (data not reported). At Gainesville, FL, 'PP-1' was similar in height to 'Pointed Leaf', 'Ecoturf', and 'Arblick' on two of four measuring dates; shorter than 'Florigraze' on three of four dates; and shorter than 'Arbrook' on all dates (Table 8). 'PP-1' was rated in the top statistical group in four of five tests for turf quality (overall rating for density, texture, and color) (Table 9).

In the establishment year (2006) at Tifton, GA, 'PP-1' and 'Ecoturf' were slower to establish than the other cultivars (Table 10). Anderson et al. (2015) showed a similar slower rate of establishment for 'PP-1' (referred to as EX5 in the study). However, in subsequent years, 'PP-1' was in the top statistical group for maintaining dense groundcover. Canopy density at Tifton, GA (Table 11), was similar for 'PP-1', 'Ecoturf', and 'Arblick'; and greater than 'Florigraze' and 'Arbrook' at most rating dates. Canopy density at Quincy, FL (data not reported), was similar to 'Pointed Leaf', 'Arblick', and 'Florigraze' at early and midseason dates, but had less density than the other cultivars

Table 6. Plant color ratings on five *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, 18 May 2006.

Entry	Plant color ^z												
	2008		2009			2010				2011			
	2 May	7 Oct.	11 Aug.	30 Sept.	16 Dec.	20 Apr.	3 Aug.	1 Sept.	29 Sept.	19 Nov.	19 Apr.	20 June	27 July
PP-1	7.0	8.0	8.0	9.0	9.0	9.0	9.0	9.0	9.0	8.0	9.0	9.0	9.0
Ecoturf	6.0	6.0	5.5	6.2	6.7	7.7	6.5	7.5	7.0	5.0	7.5	7.5	7.2
Arblick	7.0	7.0	6.0	7.2	8.0	7.7	7.7	8.0	9.0	6.5	8.0	7.7	8.0
Florigraze	4.0	4.0	4.2	4.7	4.5	6.2	4.0	6.2	5.5	3.5	6.2	6.5	6.0
Arbrook	8.0	7.0	4.2	5.7	5.5	8.0	6.2	7.7	7.2	5.2	7.5	7.2	7.0
LSD-5%	1.0	1.0	0.7	0.5	1.0	0.5	0.5	0.7	0.8	0.7	0.5	0.8	0.7

^zColor is rated on a scale of 1 to 9, where 1 is yellow and 9 is dark green.

LSD = least significant difference.

Table 7. Height of five *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, on 18 May 2006.

Entry	Ht (cm) ^z					
	2008		2009		2011	
	2 May	2 June	1 July	15 Oct.	19 Apr.	27 July
PP-1	6.0	8.0	10.0	18.5	13.0	19.5
Ecoturf	6.0	8.0	11.0	20.5	5.7	18.7
Arblick	8.0	9.0	13.0	30.0	10.2	25.0
Florigraze	4.0	7.0	14.0	19.0	4.5	16.7
Arbrook	14.0	16.0	17.0	27.0	14.0	23.7
LSD-5%	2.0	1.0	2.0	3.1	2.3	4.7

^zPlant height measured from ground level to top of plant canopy.

LSD = least significant difference.

Table 8. Height of six *Arachis glabrata* perennial peanut genotypes planted at Gainesville, FL, on 28 June 2010.

Entry	Ht (cm) ^z			
	2010		2011	
	22 Oct.	20 Apr.	1 June	30 Sept.
PP1	6.2	6.2	6.2	6.2
Pointed Leaf	6.2	6.2	6.2	5.7
Ecoturf	17.2	12.7	5.7	57.0
Arblick	9.5	12.7	11.0	30.2
Florigraze	14.2	19.0	15.7	104.7
Arbrook	52.2	25.5	31.7	82.5
LSD-5%	4.0	3.7	10.0	64.2

^zHeight measured from ground level to top of canopy.

LSD = least significant difference.

Table 9. Turf quality of five *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, on 18 May 2006.

Entry	Turf quality for 2008 ^z				
	2 June	7 July	1 Aug.	2 Sept.	7 Oct.
PP-1	6.5	9.0	8.0	9.0	6.8
Ecoturf	6.0	7.0	7.8	7.3	5.8
Arblick	7.8	7.8	8.0	8.0	6.8
Florigraze	3.5	5.5	4.5	4.3	4.8
Arbrook	4.0	3.8	5.3	2.5	6.3
LSD-5%	1.1	0.9	0.7	1.0	0.8

^zVisual turf quality (based on color, density, and texture) rating on scale of 1 to 9, where 1 is poor and 9 is excellent. A rating of 6 is considered acceptable turf quality.

LSD = least significant difference.

Table 10. Percent groundcover of five *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, on 18 May 2006.

Entry	Ground cover (%) ^z				
	2006	2009	2010	2011	
	20 Oct.	9 Apr.	12 Apr.	19 Apr.	20 Jan.
PP-1	42.0	97.5	100.0	9.0	9.0
Ecoturf	57.0	70.0	95.0	5.2	7.0
Arblick	75.0	87.5	97.0	6.7	8.5
Florigraze	77.0	10.0	77.0	2.0	5.2
Arbrook	72.0	35.0	57.0	4.0	7.0
LSD-5%	17.0	11.7	11.0	1.6	2.1

^z1 = less than 20% groundcover; 2 = 20% to 30% groundcover; 3 = 30% to 40% groundcover; 4 = 40% to 50% groundcover; 5 = 50% to 60% groundcover; 6 = 60% to 70% groundcover; 7 = 70% to 80% groundcover; 8 = 80% to 90% groundcover; 9 = 100% groundcover.

LSD = least significant difference.

except for 'Pointed Leaf' in October as a result of to pepper spot disease [*Leptosphaerulina crassiasca* (Sechet) C.R. Jackson and D.K. Bell].

Spring green-up at Gainesville, FL, was similar for all cultivars except for 'Florigraze', which showed a slower green-up (Table 12). 'PP-1' showed better freeze tolerance than 'Ecoturf' and 'Arblick' at Gainesville, FL, and all of the cultivars tested at Quincy, FL (Table 12).

At Tifton, GA, 'PP-1' had low pepper spot ratings at the October and November rating dates (Table 13) regardless of year. The disease rating was greater at a December date in 2009, but less than the disease on 'Florigraze' and 'Arbrook'. Pepper spot ratings for 'PP-1' were low for 'PP-1' and similar to 'Pointed Leaf' at Quincy, FL (data not reported). Leaf scorch caused by the same organism as pepper spot was greater for 'PP-1' (and similar to 'Pointed Leaf') at Quincy, FL (data not reported), and at Gainesville, FL (Table 14), than for the other cultivars in the test. On 7 Oct. 2012, the 'PP-1' growing in the original collection area next to U.S. Route 41 showed high pepper spot infection whereas the adjacent, fertilized 14 June 2011 test and the foundation planting showed no disease symptoms (personal observation). Similar leaf spot symptoms are observed on bermudagrass [*Cynodon dactylon* (L.) Pers.] in the fall as a result of the soil being depleted of potassium. No *Peanut stunt virus*, also known as *Cucumber mosaic virus* genus *Cucumovirus*, was detected in 'PP-1' growing at Gainesville, FL, in 2010, 2011, and 2012 (Table 14).

A number of propagation studies (not reported here) have been conducted using rhizomes as sod (using a peanut inverter to dig the sod) and dug sprigs (using a traditional bermudagrass sprig harvester). Both propagation materials work well, but sprigs are easier to plant and handle. Best establishment takes place when sprigs are planted in furrows (continuous row of rhizomes with an average density of two to four sprigs side by side), covered with 2.5 cm of soil. Rhizomes planted in 1-m-wide rows establish in 1 year. Closer row spacings speed up establishment. A layer of rhizomes with 80% surface coverage planted in 23 × 46-cm flats or pots establish as a marketable product in 5 to 6 weeks in the greenhouse.

Morphologically, 'PP-1' is most similar to 'Pointed Leaf'. However 'PP-1' has narrower leaves (Table 1) than 'Pointed Leaf', A42, and all the cultivars tested. 'PP-1' and most of the

Table 11. Canopy density ratings on five *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, 18 May 2006.

Entry	Canopy density ^z						
	2008	2009	2010			2011	
	7 Oct.	15 Oct.	3 Aug.	1 Sept.	29 Sept.	29 Nov.	27 July
PP-1	8.0	8.0	9.0	9.0	9.0	8.0	9.0
Ecoturf	7.0	8.7	7.2	8.7	9.0	7.2	7.5
Arblick	7.8	8.5	7.2	9.0	8.7	7.7	8.2
Florigraze	4.5	4.2	4.7	6.7	6.5	3.5	6.0
Arbrook	5.8	6.0	5.2	6.7	6.5	4.7	6.7
LSD-5%	1.1	1.0	1.0	0.5	0.9	0.7	0.8

^z1 = less than 20% canopy density; 2 = 20% to 30% canopy density; 3 = 30% to 40% canopy density; 4 = 40% to 50% canopy density; 5 = 50% to 60% canopy density; 6 = 60% to 70% canopy density; 7 = 70% to 80% canopy density; 8 = 80% to 90% canopy density; 9 = 100% canopy density.

LSD = least significant difference.

Table 12. Ratings for spring green-up and freeze damage on six *Arachis glabrata* perennial peanut genotypes planted at Gainesville, FL, on 28 June 2010 and at Quincy, FL, on 10 Apr. 2009.

Entry	Spring green-up ^z	Freeze damage ^y	
	21 Mar. 2012	18 Nov. 2011	5 Jan. 2012
PP-1	4.9	7.5	4.6
Pointed Leaf	5.0	10.0	3.4
Ecoturf	5.0	45.0	3.2
Arblick	5.0	51.2	3.0
Florigraze	3.5	40.0	3.2
Arbrook	4.7	25.5	3.6
LSD-5%	0.5	34.9	0.6

^zSpring green-up at Gainesville, FL, was rated on a scale of 1 to 5, where 1 is brown and 5 is completely green.

^yFreeze damage at Quincy, FL, on 18 Nov. 2011 was rated as percent leaf damage after -2 °C for 2 d. Freeze damage at Quincy, FL, on 5 Jan. 2012 was rated on a scale of 1 to 5, where 1 is severe damage and 5 is tolerant. Leaf damage was scored 2 d after -8 °C for 2 d.

LSD = least significant difference.

Table 13. Pepper spot ratings on five *Arachis glabrata* perennial peanut genotypes planted at Tifton, GA, on 18 May 2006.

Entry	Pepper spot ^z			
	2008	2009		2010
	7 Oct.	15 Oct.	16 Dec.	29 Nov.
PP-1	1.0	1.0	3.5	1.5
Ecoturf	1.3	2.0	3.2	2.2
Arblick	1.0	1.0	2.0	1.7
Florigraze	1.5	6.0	5.7	4.2
Arbrook	1.0	4.2	5.0	4.2
LSD-5%	0.4	1.3	1.0	2.0

^zPepper spot was rated on a scale of 1 to 9, where 1 is no disease and 9 is high disease. Disease caused by *Leptosphaerulina crassiasca*.

LSD = least significant difference.

Table 14. Peanut stunt virus ratings and leaf scorch ratings on six *Arachis glabrata* perennial peanut genotypes planted at Gainesville, FL, on 28 June 2010.

Entry	Peanut stunt virus ^z				Leaf scorch ^y		
	22 Oct. 2010	29 July 2011	30 Sept. 2011	30 June 2012	22 Oct. 2010	29 July 2011	30 Sept. 2011
PP-1	1.0	1.0	1.0	1.0	3.3	3.0	3.0
Pointed Leaf	1.0	1.0	1.0	1.0	3.5	2.8	2.8
Ecoturf	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Arblick	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Florigraze	6.8	5.8	5.3	6.0	2.0	1.8	1.8
Arbrook	2.0	2.0	1.8	1.5	1.8	1.5	1.8
LSD-5%	0.3	0.5	0.6	0.3	0.5	0.5	0.5

^zPeanut stunt virus (*Cucumovirus*) ratings on a scale of 1 to 9, where 1 is no symptoms and 9 is severe mottling, puckered leaves, and leaf chlorosis.

^yLeaf scorch ratings on scale of 1 to 9, where 1 is no disease, 5 is severe lesions, and 9 is leaf drop. Disease caused by *Leptosphaerulina crassiasca*.

LSD = least significant difference.

cultivars tested have similar leaf lengths (Table 3). 'PP-1' had smaller leaves than all the other cultivars except for 'Florigraze' on 25 July 2011 at Tifton, GA, and 'Pointed Leaf' on 21 Aug. 2010 at Quincy, FL (Table 2).

'PP-1' is a dark-green, narrow-leaf plant that produces an abundance of yellow-orange flowers in the spring, summer, and fall. It has performed as well or better in Georgia and Florida than most released cultivars. It has performed well in Poteet, TX, and Lake City, FL, in nonreplicated tests, and in yards at private residences where it has been established for 2 to 6 years. A study by Anderson et al. (2015) indicated that 'PP-1' did not perform well in their shade study. 'PP-1' produces a low-maintenance, low-input ornamental and colorful groundcover. General observations have been that PP-1 will not tolerate as much traffic as most grasses used for turf. Preliminary studies (not reported here) show that it can be used in combination with lawn grasses to furnish nitrogen for the grass. Although deer are located on the UGA Tifton Campus, we have never seen them grazing PP-1.

Availability

'PP-1' is a patented cultivar by the University of Georgia. A field planting of breeder material for 'PP-1' is maintained at the University of Georgia, Tifton Campus. As a protected cultivar, PP-1 can only be produced by nurseries licensed by the Georgia Research Foundation. 'PP-1' has a number of licensees and will be marketed as Cowboy.

Literature Cited

- Anderson, D.A., G.W. Knox, A.R. Blount, C.L. Mackowiak, and E.F. Gilman. 2015. Ornamental groundcovers characteristics of rhizome peanut (*Arachis glabrata* Benth.): Shade affects height but not cover. *HortScience* 50:952–956.
- Anonymous. 2006. Brooksville 68 germplasm perennial peanut. U.S. Department of Agriculture/National Resource Conservation Service fact sheet.
- Maas, A.L., W.F. Anderson, and K.H. Quesenberry. 2010. Genetic variability of cultivated rhizome peanut. *Crop Sci.* 50:1908–1914.
- Prine, G.M., L.S. Dunavin, R.J. Glennon, and R.D. Roush. 1990. Registration of 'Arbrook' rhizome peanut. *Crop Sci.* 30:743–744.
- Prine, G.M., L.S. Dunavin, J.E. Moore, and R.D. Roush. 1986. Registration of 'Florigraze' rhizome peanut. *Crop Sci.* 26:1084–1085.
- Prine, G.M., E.C. French, A.R. Blount, M.J. Williams, and K.H. Quesenberry. 2010. Registration of Arblick and Ecoturf rhizome germplasms for ornamental or forage use. *J. Plant Regist.* 4:145–148.
- Royal Horticultural Society. 2007. RHS color chart. 5th ed. Royal Horticultural Society, London, UK.



Supplemental Fig. 1. Three-year-old foundation field of 'PP-1' at the University of Georgia, Tifton Campus.