

New Varieties' Performance and Description

Table 1. Agronomic performance of commercially available peanut cultivars across years (2012-2019), locations (Suffolk, VA, and Williamston, NC), and digging date (dig I, early; and dig II, at optimum maturity).

Variety	Dig I (early)		Dig II (optimal)	
	Yield (lb/acre)	Value (\$/acre)	Yield (lb/acre)	Value (\$/acre)
Bailey	5125 a	892 a	5539 a	995 ab
Bailey II	5360 a	953 a	5710 a	1035 a
Emery	5005 ab	890 a	5255 a	920 ab
Sullivan	4682 bc	786 bc	5218 a	898 ab
Walton	5173 a	861 ab	5667 a	995 ab
Wynne	4521 c	740 c	5084 a	858 b

*Averages followed by the same letters are not statistically different based on Fisher's LSD at 5% probability.

Table 2. Agronomic performance of commercially available peanut cultivars across years (2012-2019), and locations (Suffolk, VA, and Williamston, NC) when dug approximately two weeks early than optimum maturity (dig I).

Variety	Fancy pods	Super extra-large kernels	Sound mature kernels	Total meat
			%	
Bailey	86 bc	5 d	64 ab	71 ab
Bailey II	88 b	8 cd	66 a	71 a
Emery	92 a	13 a	66 a	71 a
Sullivan	88 b	9 bc	63 bc	69 bc
Walton	83 c	11 ab	63 bc	70 a-c
Wynne	92 a	10 bc	62 c	69 c

*Averages followed by the same letters are not statistically different based on Fisher's LSD at 5% probability.

Table 3. Agronomic performance of commercially available peanut cultivars across years (2012-2019), locations (Suffolk, VA, and Williamston, NC) when dug at optimum maturity (dig II).

Variety	Fancy pods	Super extra-large kernels	Sound mature kernels	Total meat
			%	
Bailey	83 b	9 d	65 a	73 a
Bailey II	84 b	13 c	65 a	73 a
Emery	91 a	17 ab	65 a	73 a
Sullivan	83 b	13 c	64 a	71 ab
Walton	85 b	19 a	65 a	73 a
Wynne	91 a	14 bc	62 a	71 b

*Averages followed by the same letters are not statistically different based on Fisher's LSD at 5% probability.

Description of the new cultivars

Walton: Walton was tested as '08x09-3-14-1' line and jointly released in 2019 by the University of Florida and Virginia Tech. It is a Virginia-type peanut with similar good agronomic performance when compared with Bailey, Emery, and Bailey II under "normal" production, but with superior performance than these cultivars under extreme water conditions. Seeds are elongated in shape and seed testa color is light pink to pink. It has dark green foliage; an intermediate growth habit and the main stem is not distinguishable from the lateral branches. Walton is a high-oleic line with resistance to leaf spot and TSWV, and it was developed for the VC region. Seed will become available after the 2021 growing season.

Bailey II: Bailey II was released by the North Carolina State University in 2017; it is a high oleic version of Bailey but seeds are slightly larger than Bailey. Bailey II has good disease resistance to CBR, Sclerotinia

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blight and TSWV, and it matures at the same time with Bailey. Seed will be available after the 2020 growing season.

Table 4. Agronomic and Market Characteristics of Virginia Market-type Peanut Varieties Recommended for Virginia

Characteristics	Bailey	Bailey II	Walton	Sullivan	Wynne	Emery
General						
Growth Habit	Int.-runner	Int.-runner	Int.-runner	Int.-runner	Int.-runner	Int.-runner
Maturity ^a	0	0	0	0	+5	-3
Heat Units	2,590	2,590	2,600	2,600	2,700	2,550
Seed Coat Color	Tan	Tan	Lt. pink	Tan	Pink	Tan
Seed Count/lb	600	575	600	600	450	535
Calcium Need	Mod.	Mod.	Mod.	Mod.	High	High
Grade & Quality Factors^b						
%ELK	0	+	0	0	+++	+++
%SMK	0	+	++	0	-	0
%Fancy	0	+	0	0	++	++
Blanchability	0	0	0	0	0	0
Shelf-life ^c	0	+++	+++	+++	+++	+++

^a 0 = Same as Bailey; '+' = Days later than Bailey; '-' = Days earlier than Bailey

^b 0 = Same as Bailey; '++' = Substantially higher than Bailey; '-' = Substantially lower than Bailey; '+' = higher than Bailey

^c +++ = Passes the high oleic fatty acid trait

Table 5. Cultural Practices: Plant Population, Seed Size, and Seeding Rates for Recommended Varieties

Seeding Rates			Variety and Approximate Seed Count Per Pound					
Seed Spacing (inches)	# Seed per foot	# Seeds per acre	Bailey (600)	Bailey II (575)	Walton (600)	Sullivan (600)	Wynne (450)	Emery (535)
For 36' rows*			Lbs seed required to plant 1 acre @ 36' row spacing**					
2.0	6	81,000	135	141	135	135	180	180
3.0	5	73,000	120	127	120	120	160	160
4.0	4	58,000	95	101	95	95	130	130
5.0	3	44,000	75	77	75	75	100	100
6.0	2	29,000	50	50	50	50	65	65

Table 6. Disease and Insect Resistance Characteristics of Virginia Market-type Peanut Varieties Recommended for Virginia

Characteristics	Bailey	Bailey II	Walton	Sullivan	Wynne	Emery
Disease Resistance						
CBR	MR	MR	MR	MR	MR	S
Leaf spot	MR	MR	MR	MR	MR	MR
Pod rot	S	S	S	S	S	S
Sclerotinia blight	MR	MR	MR	MR	MR	MR
Stem rot	S	MR	S	S	S	S
TSWV	MR	MR	MR	MR	MR	MR
Web blotch	S	S	S	S	S	S
Insect Resistance						
Corn earworm	S	S	S	S	S	S
Leafhopper	S	S	S	S	S	S
Rootworm	S	S	S	S	S	S
Spider mites	S	S	S	S	S	S
Thrips	MR	S	S	S	S	S

VS = Very Susceptible; S = Susceptible; MR = Moderate Resistant