

2019

Peanut Variety and Quality Evaluation Results

I. Agronomic and Grade Data

Tidewater Agricultural Research and Extension Center

Virginia Agricultural Experiment Station



**Virginia
Cooperative
Extension**

Virginia Tech
Virginia State University

PEANUT VARIETY AND QUALITY EVALUATION RESULTS 2019

I. Agronomic and Grade Data

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ABBREVIATIONS

LSK, Loose Shelled Kernels, percent of kernels or portions of kernels free from hulls and scattered throughout the pod sample.

FM, Foreign Material, percent of anything other than mature pods found in the sample, including dirt, vines, sticks, stones, insects, broken shells, and raisins (immature pods with shriveled and shrunken shells that cannot be mechanically shelled).

Moisture, percent kernel moisture at grading, as determined by an electronic moisture meter.

Fancy, percent pods that fell through a 38/64 inch opening but rode a 34/64 inch opening on the pre-sizer.

Jumbo, percent pods that rode the 38/64 inch opening on the pre-sizer.

ELK, Extra Large Kernels, percent kernels which ride a 21.5/64 x 1 inch slotted screen.

SS, Sound Splits, percent split or broken kernels which are not damaged. Portions less than 1/4 of a whole kernel are not included but go into other kernels.

DK, Damaged Kernels, percent moldy and decayed kernels, or with skin and flesh discoloration due to insects and weather damage.

OK, Other Kernels, percent kernels passing through a 15/64 x 1 inch slotted screen. Splits and broken pieces, 1/4 kernel or larger which pass through this screen are considered SS or DK depending upon their condition.

SMK, Sound Mature Kernels, percent whole kernels which ride a 15/64 x 1 inch slotted screen. Splits that ride this screen are included as SS or DK, as the case may be.

TM, Total Kernels, percent all kernels in the shelling sample including SMK, SS, OK, and DK.

Support Price (\$/lb), price based on USDA – FSA formula.

Yield (lb/A), plot weights converted to an acre basis. All yields are adjusted to a standard 7% moisture with FM deducted.

Value (\$/A), crop value computed by the following formula:

$$\text{Value} = (\text{Yield} * \text{Support Price})$$

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Introduction

INTRODUCTION

Due to suitability to the environmental conditions and existence of a strong peanut industry tailored to process primarily the large-seeded Virginia-type peanut, growers in Virginia, North Carolina, and South Carolina generally grow Virginia-type cultivars. In the view of a common interest in the Virginia-type peanut, the three states are working together through a multi-state project, the Peanut Variety Quality Evaluation (PVQE), to evaluate advanced breeding lines and commercial cultivars throughout their production regions. The objectives of this project are: 1) to determine yield, grade, quality, and disease response of commercial cultivars and advanced breeding lines at various locations in Virginia and the Carolinas, 2) develop a database for Virginia-type peanut to allow research-based selection of the best genotypes by growers, industry, and the breeding programs, and 3) to identify the most-suited peanut genotypes for various regions that can be developed into varieties. This report contains agronomic and grade data of the PVQE tests in 2019.



TAREC Field Day participants



PVQE Variety trial at TAREC Research Farm

Plant Material and Test Location

PLANT MATERIAL AND TEST LOCATIONS

In 2019, PVQE included 28 genotypes: 6 commercial varieties, including the line N12008olCLSmT released in 2017 as Bailey II, and 22 advanced breeding lines developed by the North Carolina State University and University of Florida/Virginia Tech peanut breeding programs (Table 1). All breeding lines have the ‘high oleic acid’ characteristic and they are marked by ‘ol’ letters in their names; the commercial cultivars are conventional for this trait with the exception of Sullivan and Wynne. Genotypes were planted from May 3 through June 10 at five locations: the Tidewater AREC in Suffolk, VA, Martin Co., NC, the Upper Coastal Plain Research Station (UCPRS) near Rocky Mount, NC, Bladen County, NC, and the Edisto Research and Education Center at Blackville, SC. At Suffolk and Martin two digging dates and two replications within each digging date were planted in a RCBD design. The first digging date was approximately two weeks earlier than the optimum harvest date (the second digging date in this test). This setting allows identification of early maturing varieties. At the UCPRS and Bladen County, only one digging date (optimum) replicated twice at each site was planted. For all locations, cultivars were compared with the breeding lines for yield and grading characteristics, as the ultimate objective is development of improved Virginia-type peanut cultivars.



Rocky Mount, NC,
Superintendent Clyde Bogle



Martin, NC



Suffolk, VA

Plant Material and Test Location

PLANT MATERIAL AND TEST LOCATIONS

Table 1. Names and parentage of the genotypes (advanced breeding lines and commercial varieties) evaluated in 2019.

Genotype number	Variety/line	Parentage
1	Bailey	NC 12C*2 / N96076L
2	Sullivan	Bailey / X03034 (F01)
3	Wynne	N03079FT / X03034 (F01)
4	Emery	N03079FT*2 / Brantley
5	Bailey II	Bailey / XO7016 (BC2F1 – 04:F01)
6	08X09-1-2-1	
7	Walton	2000x10-1-B2-3-2-2/97x48-HO3-7-B2-2-b3-B
8	09X38-1-5-1	
9	09X39-1-11-2	
10	11X33-1-4-3	
11	N13049oIJ	N03079oIFT // X03034 (F1), N03079FT / N02059ol (Per), X03155 (ol ol, BC1F1-04-01-S-04-S-01: F09) /3/ N05044FCSm
12	N13054ol	N03079oIFT // X03034 (F1), N03079FT / N02059ol (Per), X03155 (ol ol, BC1F1-04-01-S-04-S-01: F09) /3/ N05049J
13	N14002oIJ	N03079FT // X05024 (F01), NO3079FT / N02064ol
14	N14004oIJ	Bailey // X05027 (F01), Bailey / N02060ol (Per) Phillips / N99121CSm, X00044 (F2-02-S-04:-S04: F08, 04 DPT 030) /3/ X050036 (F01), Phillips / N99121CSm, X00044 (F2-02-S-04-S-04: F08, DPT (030) // N02064ol
15	N14023ol	N01015T / N00098ol (Gre), XO2083 (F2-01-S-01-S-05 : F07) // Sugg
16	N14027oIJ	Bailey /4/ X07019 (BC2F1-05: F01), Bailey // X05028 (F01), Bailey / N02064ol, X05250 (BC1F1-06-02: F03 ol ol) /3/ Bailey
17	N15017ol	Bailey /4/ X07018 (BC2F1-07: F01), Bailey // X05028 (F01), Bailey / N02064ol, X05250 (BC1F1-06-01: F03 ol ol) /3/ Bailey
18	N15039ol	N03079FT*2 / N02054ol (11), X03153 (ol ol, BC1F1-03-01-S-04-S-02: F09) // N05042F
19	N15041ol	N03079FT*2 / N02059ol (Per), X03155 (ol ol, BC1F1-04-01-S-04-S-01: F09) // N05044FCSm
20	N15044oIF	N03079FT*2 / N02059ol (Per), X03155 (ol ol, BC1F1-04-01-S-04-S-01: F09) // N05044FCSm
21	N16005	Bailey*2 / Brantley, X03157 (ol ol, BC1F1-04-01-S-04-S-05: F09) // GP-NC WS 16 (SPT 06-06)
22	N16011	N08082oIJCT /3/ X09008 (F01), N08082oIJCT // SPT 07-01, NC-V 11 / GP-NC WS 11
23	N16028	N08083oICT // X09031 (F01), N08083oICT / CRSP 702
24	N16030	N08083oICT // X09031 (F01), N08083oICT / CRSP 702
25	N16032	N08070oIJC /3/ X11005 (F1), N08070oIJC // X08054 (F1-03-01: F04), N08059oIFCT / GP-NC WS 16 (SPT 06-06)
26	N16034	N08070oIJC /3/ X11010 (F1), N08070oIJC // X08055 (F1-04-04: F04), N08059oIFCT / GP-NC WS 17 (SPT 06-07)
27	N16035	Wynne /3/ X11015 (F1), Wynne // X08054 (F1-03-01: F04), N08059oIFCT / GP-NC WS 16 (SPT 06-06)
28	N16055	N09049oIC /3/ X11034 (F1), N09049oIC // X08054 (F1-02-02: F04), N08059oIFCT / GP-NC WS 16 (SPT 06-06)

Plant Material and Test Location

Table 2. Planting, digging and combining dates for each test location in 2019. Dig I was considered an early digging, and Dig II an optimum digging time for peanut in V-C area.

Locations	<u>Planting Date</u>		<u>Digging Date</u>		<u>Harvest Date</u>	
	I	II	I	II	I	II
Tidewater AREC, Suffolk, VA	May 3	May 3	Sept. 17	Oct. 05	Sept. 25	Oct. 11
Martin County, NC	May 14	May 14	Sept. 25	Oct. 3	Oct. 3	Oct. 10
Rocky Mount, NC	May 8		Sept. 26		Oct. 2	
Bladen County, NC	June 10		Oct. 16		Oct. 24	
Blackville, SC	May 9		Sept. 25		Oct. 3	

Weather Conditions

WEATHER CONDITIONS

Weather information is provided in Tables 3 through 6, and Fig. 1.

Table 3. Temperature of air and soil at 4 inches depth, peanut heat units (degree day – DD56) calculated based on a 56 °F temperature base (T_b), and precipitation at Tidewater AREC, Suffolk VA, in 2019 peanut growing season. These data are provided by the Peanut/Cotton InfoNet of Tidewater AREC from 3 May to 5 October.

Month	Avg Air Temp	Max Air Temp	Min Air Temp	Avg Soil Temp	Heat units DD56	Rain
	°F				°F d	inch
May	73	84	62	76	493	3.0
June	75	86	66	79	581	5.6
July	80	91	70	84	732	7.2
August	77	88	68	82	639	7.5
September	74	86	63	78	530	1.6
October	73	86	62	77	86	0.0
Mean/Sum	75	87	65	79	3061	21.8

Table 4. Temperature of air and soil at 4 inches depth, light (photosynthetic active radiation - PAR), air relative humidity (RH), and precipitation at Martin County, NC, in 2019 peanut growing season. These data are provided by the State Climate Office of NC from 14 May to 3 October.

Month	Avg Air Temp	Max Air Temp	Min Air Temp	Avg Soil Temp	Heat units DD56	AVG PAR ¹	Max PAR ¹	RH	Rain
	°F				(°F d)	$\mu\text{mol m}^{-2} \text{s}^{-1}$		(%)	(inch)
May	76	88	64	77	356	583	2110	70	0.9
June	76	86	66	79	604	501	2191	71	5.5
July	79	91	70	83	753	538	2110	76	7.5
August	77	87	69	82	694	443	2033	76	10.1
September	75	86	66	79	595	376	1769	73	7.3
October	77	91	67	78	67	348	1347	73	0.0
Mean/Sum	77	88	67	80	3070	477	2023	72	31.3

¹ Light is important for peanut growth and development. On a fully sunny day, maximum PAR approaches $2500 \mu\text{mol m}^{-2} \text{s}^{-1}$ and average PAR (average from sunrise to sunset) is approximately $600 \mu\text{mol m}^{-2} \text{s}^{-1}$. If these numbers are less, it denotes cloudy days, on which plants grow less.

Weather Conditions

Table 5. Temperature of air and soil at 4 inches depth, peanut heat units (degree day – DD56) calculated based on a 56 °F temperature base (T_b), light (photosynthetic active radiation – PAR), air relative humidity (RH), and precipitation at Rocky Mount, NC, in 2019 peanut growing season. These data are provided by the State Climate Office of NC from 8 May to 26 September.

Month	Avg	Max	Min	Avg	Heat	Avg	Max	RH	Rain
	Air Temp	Air Temp	Air Temp	Soil Temp	units DD56	PAR ¹	PAR ¹		
	°F				(°F d)	$\mu\text{mol m}^{-2}\text{s}^{-1}$		(%)	(inch)
May	75	87	63	79	455	556	2156	62	2.3
June	76	86	67	80	606	526	2281	71	3.8
July	81	93	71	86	791	558	2160	69	2.5
August	77	88	69	82	703	455	2098	75	6.5
September	74	86	65	79	508	410	1814	76	5.5
Mean/Sum	77	88	67	81	3062	501	2108	71	20.5

¹ Light is important for peanut growth and development. On a fully sunny day, maximum PAR approaches 2500 $\mu\text{mol m}^{-2}\text{s}^{-1}$ and average PAR (average from sunrise to sunset) is approximately 600 $\mu\text{mol m}^{-2}\text{s}^{-1}$. If these numbers are less, it denotes cloudy days, on which plants grow less.

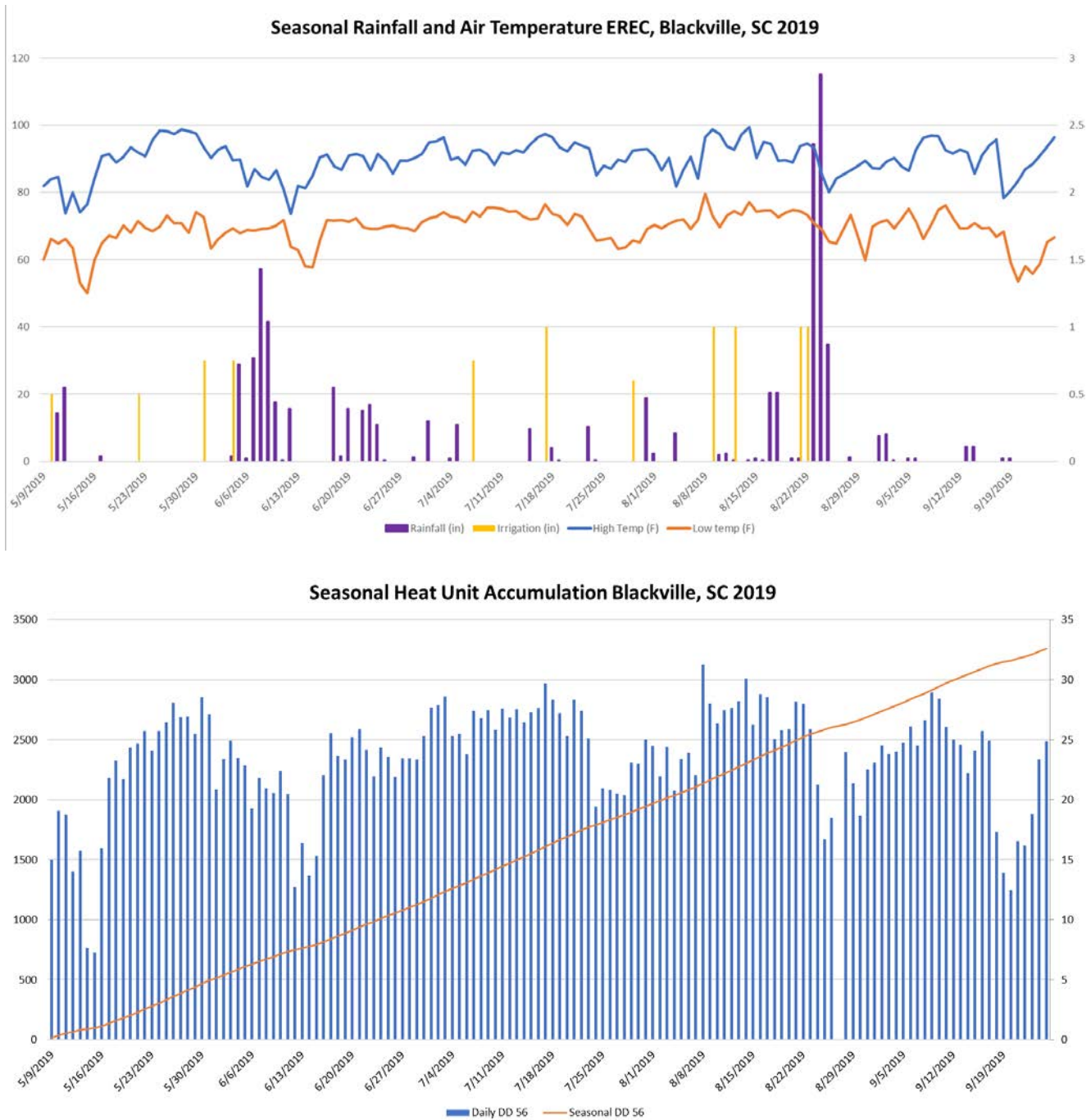
Table 6. Temperature of air and soil at 4 inches depth, peanut heat units (degree day – DD56) calculated based on a 56 °F temperature base (T_b), light (photosynthetic active radiation – PAR), air relative humidity (RH), and precipitation at Bladen County, NC, in 2019 peanut growing season. These data are provided by the State Climate Office of NC from 10 June to 16 October.

Month	Avg	Max	Min	Avg	Heat	Avg	Max	RH	Rain
	Air Temp	Air Temp	Air Temp	Soil Temp	units DD56	PAR ¹	PAR ¹		
	°F				(°F d)	$\mu\text{mol m}^{-2}\text{s}^{-1}$		(%)	(inch)
June	77	88	68	79	459	549	2240	72	0.0
July	80	92	71	81	780	551	2308	75	4.3
August	78	89	70	81	736	466	2190	80	4.7
September	76	88	66	79	629	440	1833	78	5.5
October	70	82	60	74	23	327	1807	75	1.9
Mean/Sum	77	88	68	79	2627	477	2096	76	16.4

¹ Light is important for peanut growth and development. On a fully sunny day, maximum PAR approaches 2500 $\mu\text{mol m}^{-2}\text{s}^{-1}$ and average PAR (average from sunrise to sunset) is approximately 600 $\mu\text{mol m}^{-2}\text{s}^{-1}$. If these numbers are less, it denotes cloudy days, on which plants grow less.

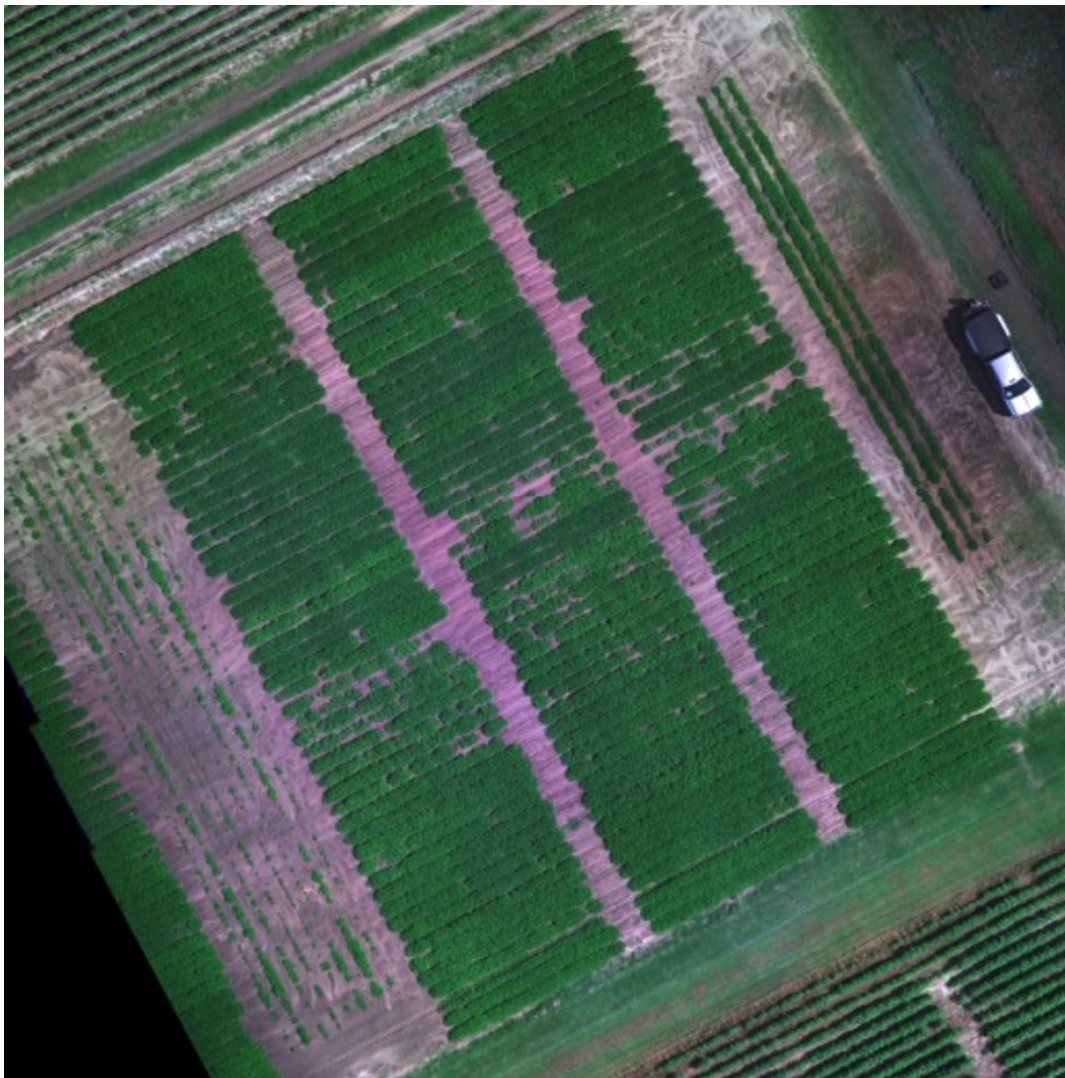
Weather Conditions

Figure 1. Temperature of air, peanut heat units (degree day – DD56) calculated based on a 56 °F temperature base (T_b), and precipitation at Blackville, SC, in 2019 peanut growing season. These data are from 9 May to 25 September.



CULTURAL PRACTICES

Cultural practices were performed according to VA, NC and SC recommendations. Plots were 35 ft rows planted on 36-inch centers (3-6 seed/row ft) with a two-row planter. All plots were dug with a KMC 2-row Planting Digger, and combined with a 2-row Hobbs peanut picker, model 325A, equipped with a bagging attachment. Tables 7 through 11 show planting dates, soil type, pH and mineral content, and cultural practices applied to the crops at each location.



Aerial picture of a peanut field at the Virginia Tech Tidewater AREC station in Suffolk VA , taken in July 2019 using a DJI M200 V2 Tetracopter with a MicaSense Altum camera

Cultural Practices

Table 7. Cultural practices at Tidewater AREC (Suffolk), VA, for Digs I and II in 2019.

Planting Date:	May 3, 2019		
Harvest Date:	Dig I – September 25, 2019; Dig II – October 11, 2019		
Soil Type:	Eunola, Nansemond, Uchee		
Cultivation:	Conventional Till		
Landplaster:	7/1/2019	Landplaster	1800 lb/A
Fertility:	5/3/2019	Optimize Lift (in Furrow)	16 oz/A
	7/1/2019	Landplaster	1800 lb/A
	4/24/2019	Boron (10%)	1 qt/A
	6/1/2019	Manganese (8%)	1 qt/A
	8/2/2019	ENC (11-6-6)	1 qt/A
	4/23/2019	DAP (18-46-0)	125 lb/A
Herbicides:	4/24/2019	Dual Magnum	12 oz/A
	4/24/2019	Prowl H ₂ O	12 oz/A
	5/4/2019	Dual Magnum	12 oz/A
	5/4/2019	Prowl H ₂ O	12 oz/A
	7/31/2019	Strong-ARM	0.24 oz/A
	6/18/2019	Select Plus	16 oz/A
	7/31/2019	Select Plus	16 oz/A
	7/3/2019	Dual Magnum	1 pt/A
Insecticides:	5/3/2019	Admire Pro	10 oz/A
	6/11/2019	Orthene	8 oz/A
	6/11/2019	Danitol	10 oz/A
	6/26/2019	Bifenthrin	6.4 oz/A
	8/8/2019	Steward	11 oz/A
Fungicides:	5/3/2019	Proline	5.7 oz/A
	7/12/2019	Bravo	1 pt/A
	8/8/2019	Provost	10 oz/A
	8/30/2019	Fontelis	1.5 pt/A

Cultural Practices

Table 8. Cultural practices at Martin Co., NC, for Digs I and II, in 2019.

Planting Date:	May 14, 2019		
Harvest Date:	Dig I – September 25, 2019; Dig II – October 3, 2019		
Soil Type:	Norfolk loamy fine sand		
Cultivation:	Conventional Till		
Landplaster:	7/10/2019	Landplaster	1800 lb/A
Fertility:	5/14/2019	Optimize Lift (in Furrow)	16 oz/A
	7/10/2019	Landplaster	1800 lb/A
	5/14/2019	Boron (10%)	1 qt/A
	7/18/2019	Manganese (8%)	1 qt/A
	7/18/2019	Boron (10%)	1 qt/A
	5/13/2019	DAP (18-46-0)	125 lb/A
	6/10/2019	21% Ammonium Sulfate	125 lb/A
Herbicides:	5/8/2019	Prowl H ₂ O	1.5 pt/A
	5/14/2019	Dual Magnum	1.5 pt/A
	5/14/2019	Strong-ARM	0.24 oz/A
	7/12/2019	Dual Magnum	1 pt/A
Insecticides:	5/14/2019	Admire Pro	10 oz/A
	6/4/2019	Orthene	8 oz/A
	6/13/2019	Bifenthrin	6.4 oz/A
	7/18/2019	Beseige	10 oz/A
Fungicides:	5/14/2019	Proline	5.7 oz/A
	7/18/2019	Bravo	1.5 pt/A
	8/12/2019	Provost	10 oz/A
	8/30/2019	Fontelis	1.5 pt/A

Cultural Practices

Table 9. Cultural practices at Rocky Mount, NC in 2019.

Planting Date:	May 6, 2019		
Harvest Date:	October 1, 2019		
Soil Type:	Aycok very fine sandy loam		
Cultivation:	Conventional Till		
Landplaster:	7/10/2019	Landplaster	1800 lb/A
Fertility:	3/27/2019	0-0-60 Potash	54 lb/A
	7/1/2019	Tecmangam (MnSO ₄)	2.5 lb/A
	7/10/2019	Boron	1.66 lb/A
	7/10/2019	Landplaster	1800 lb/A
	7/26/2019	Boron	1.66 lb/A
	8/29/2019	Tecmangam (MnSO ₄)	2.0 lb/A
Herbicides:	4/29/2019	Prowl 3.3	32 oz/A
	5/8/2019	Dual Magnum	1.33 pt/A
	5/22/2019	Dual Magnum	1 pt/A
	5/22/2019	Gramoxone + Basagran	8 oz/A + 8 oz/A
	6/10/2019	Gramoxone + Basagran	8 oz/A + 8 oz/A
	7/11/2019	Ultra Blazer	22 oz/A
	7/11/2019	Basagran + Surfactant	1 pt/A
	7/26/2019	Boron	1.66 lb/A
	8/12/2019	Basagran + Clethodim	1 pt/A 10 oz/A
	8/12/2019	Crop Oil	1 gal/100 gal
Insecticides:	6/4/2019	Orthene	5 oz/A
	6/17/2019	Orthene	5 oz/A
	7/15/2019	Lorsban	14 lb/A
	7/26/2019	Steward	11 oz/A
	8/9/2019	Asana XL	5.8 oz/A
	8/22/2019	Bifenthrin	10 oz/A
	8/29/2019	Bifenthrin	10 oz/A
	9/18/2019	Blackhawk	2.2 oz/A
Fungicides:	7/10/2019	Bravo	1.5 pt/A
	7/26/2019	Elatus	9 oz/A
	7/26/2019	Miravis	3.4 oz/A
	8/22/2019	Headline	15 oz/A
	8/22/2019	Bravo	1.5 pt/A
	8/22/2019	Tebuzol	16 oz/A
	9/3/2019	Bravo	24 oz/A
	9/3/2019	Headline	15 oz/A
	9/3/2019	Provost	10.7 oz/A
	9/18/2019	Bravo	24 oz/A

Cultural Practices

Table 10. Cultural practices at Bladen County, NC in 2019.

Planting Date:	June 10, 2019		
Harvest Date:	October 24, 2019		
Cultivation:	Conventional Till		
Landplaster:	7/22/2019	Landplaster	1910 lb/A
Fertility:	Feb	0-13-39	330 lb/A
	6/20/2019	Manganese 10%	1.3 pt/A
	6/20/2019	Boron 10%	1.3 pt/A
	7/15/2019	Manganese	1.3 pt/A
	7/15/2019	Boron 10%	1.3 pt/A
	7/27/2019	Boron 10%	1.3 pt/A
	8/27/2019	Sulfur Complete	0.6 lb/A
	8/27/2019	Apogee	7.2 oz/A
	9/9/2019	Sulfur Complete	0.6 lb/A
Herbicides:	7/20/2019	Valor	2.5 oz/A
	7/20/2019	Dual Magnum	1.3 pt/A
	7/20/2019	Cadre	4 oz/A
	7/20/2019	Butyrac 200	1 pt/A
Insecticides:	7/27/2019	Diamond Insecticide	8 oz/A
	8/13/2019	Diamond Insecticide	8 oz/A
	8/27/2019	Besiege	8.5 oz/A
Fungicides:	7/15/2019	Approach Prima	6.5 oz/A
	7/27/2019	Elatus	8 oz/A
	8/13/2019	Provost	12 oz/A
	8/13/2019	AP 850	48 oz/barrel
	8/27/2019	Elatus	8 oz/A
	9/9/2019	Provost	11 oz/A
	9/23/2019	Miravis	3.4 oz/A
	10/7/2019	Bravo	1.3 pt/A

Cultural Practices

Table 11. Cultural practices at Blackville, SC in 2019.

Planting Date:	May 9, 2019		
Harvest Date:	October 3, 2019		
Soil Type:	Sandy Loam		
Cultivation:	Conventional Till		
Landplaster:	Gypsum		1500 lb/A
Fertility:	At planting	Optimize Lift (in Furrow)	16 oz/A
	30 DAP	Gypsum	1500 lb/A
	45 DAP	Boron	0.4 lb/A
	Preplant	0-0-60	150 lb/A
Herbicides:	1 DAP	Valor	3 oz/A
	1 DAP	Prowl	1 qt/A
	1 DAP	Dual Magnum	1.33 pt/A
	1 DAP	StrongArm	0.225 oz/A
	31 DAP	Cadre	4 oz/A
	31 DAP	2,4DB	16 oz/A
	31 DAP	Select	1 pt/A
Insecticides:	At Planting	Thimet	4.8 lb/A
Fungicides:	30 DAP	Bravo	24 oz/A
	30 DAP	Tebuzol	7.2 oz/A
	45, 60 DAP	Bravo	16 oz/A
	45, 60 DAP	Fontelis	16 oz/A
	75 DAP	Convoy	16 oz/A
	75 DAP	Provost Silver	7 oz/A
	75 DAP	Microthiol Disperss	5 lb/A
	90, 105 DAP	Bravo	24 oz/A
	90, 105 DAP	Tebuzol	7.2 oz/A
	105 DAP	Topsin	10 oz/A

2019 Results by Location

RESULTS

After harvest, yield and farmer-stock grade factors including percentages of jumbo and fancy pods, pod brightness, foreign material (%FM), loose shelled kernels (%LSK), % jumbo and fancy pods, extra large kernels (%ELK), sound mature kernels (%SMK), sound splits (%SS), other kernels (%OK), damaged kernels (%DK), and pod brightness (Hunter L score) for jumbo and fancy pods were measured. Pod yield was adjusted for 7% kernel moisture and price per pound calculated by the federal formulas. Crop value per acre was also computed. The results are presented in tables 12 to 23 for individual locations and all locations combined. Two- and three-year averages are presented in Tables 24-35. Data is also presented in tables 37-39 for peanuts grown under drought conditions in rain shelters at the TAREC in Suffolk VA. This data includes names and pedigrees of the genotypes (advanced breeding lines and commercial varieties) evaluated, content of jumbo and fancy pods and pod brightness (Hunter L Score) on rain shelter stock grades, and grade characteristics, yield, and value of genotypes in 2019.



Dr. Maria Balota explaining peanut research at the Peanut Field Tour on July 29, 2019.

2019 Results by Location

RESULTS – PODS

Table 12. Average percent of jumbo pods¹ based on farmers' grade at all locations in 2019.

Variety	Suffolk, VA		Martin County, NC		Rocky Mount, NC	Bladen, NC	Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II				
Bailey	28 n ²	35 m	40 f	36 h	51 lm	38 f-h	54 h	40 k
Sullivan	48 kl	47 k-m	57 b-d	50 d-h	57 i-m	33 h	65 e-g	51 j
Wynne	69 b-h	74 a-d	64 bc	70 ab	71 b-e	59 a-d	-	68 b-d
Emery	71 b-g	75 a-d	68 ab	62 a-f	66 d-i	59 a-d	75 a-f	68 b-d
Bailey II	36 mn	39 lm	43 ef	37 h	47 mn	36 gh	-	39 k
08X09-1-2-1	54 i-k	58 f-k	41 ef	47 d-h	63 e-k	46 c-h	52 h	51 ij
Walton	49 kl	47 kl	51 c-f	46 e-h	54 k-m	51 a-g	60 gh	52 ij
09X38-1-5-1	63 g-i	58 f-k	61 bc	62 a-f	59 h-l	53 a-f	68 d-g	60 e-h
09X39-1-11-2	43 lm	48 kl	42 ef	43 gh	40 n	40 f-h	51 h	44 k
11X33-1-4-3	67 c-h	72 a-e	67 ab	70 ab	56 j-m	52 a-g	68 d-g	64 c-f
N13049oIJ	77 a-c	65 c-h	64 bc	65 a-d	66 d-j	40 e-h	73 b-f	64 c-f
N13054ol	65 e-h	51 i-k	60 bc	48 d-h	65 e-j	53 a-g	66 e-g	58 f-i
N14002oIJ	70 b-h	67 b-f	68 ab	68 a-c	77 a-c	57 a-e	84 a	70 bc
N14004oIJ	66 d-h	61 e-j	65 b	70 ab	73 b-e	54 a-f	76 a-e	66 b-e
N14023ol	75 a-f	69 b-f	63 bc	64 a-d	77 a-c	53 a-g	81 a-c	69 b-d
N14027oIJ	74 a-f	63 d-h	63 bc	61 b-g	73 b-e	67 a	74 a-f	68 b-d
N15017ol	68 c-h	66 b-g	64 bc	64 a-d	77 a-c	61 a-c	73 a-f	67 b-d
N15039ol	65 e-h	57 f-k	66 b	63 a-e	69 c-h	57 a-e	75 a-f	64 c-f
N15041ol	61 h-j	62 e-i	65 b	59 b-g	71 b-f	53 a-f	74 a-f	63 d-g
N15044oIF	66 d-h	76 a-c	66 b	60 b-g	69 c-h	45 c-h	72 b-f	65 b-e
N16005	51 j-l	54 g-k	45 d-f	44 f-h	54 k-m	47 c-h	70 d-f	52 ij
N16011	79 ab	71 a-e	60 bc	63 a-e	76 a-d	60 a-d	84 a	70 bc
N16028	47 kl	54 h-k	62 bc	50 c-h	60 g-l	49 b-h	71 c-f	56 h-j
N16030	65 f-h	50 j-l	55 b-e	59 b-g	61 f-l	44 d-h	65 fg	57 g-j
N16032	76 a-d	71 a-e	66 b	63 a-e	70 b-f	57 a-e	73 a-f	68 b-d
N16034	67 c-h	67 b-f	64 bc	62 a-f	70 b-g	64 ab	74 a-f	67 b-e
N16035	84 a	81 a	80 a	80 a	80 ab	60 a-d	78 a-d	77 a
N16055	75 a-e	77 ab	67 ab	56 b-g	84 a	59 a-d	82 ab	71 ab
Mean	63	61	60	58	65	51	70	61
LSD	10	12	14	18	10	17	-	-

¹Pods that rode a 38/64 inch opening on the pre-sizer.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 13. Average percent of fancy pods¹ based on farmers' grade at all locations in 2019.

Variety	Suffolk, VA		Martin County, NC		Rocky Mount, NC	Bladen, NC	Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II				
Bailey	60 a ²	54 a	46 a	44 a-d	42 a-c	42 a-c	33 ab	46 ab
Sullivan	47 bc	46 ab	34 a-f	41 a-e	37 b-d	44 a	26 cd	39 cd
Wynne	22 f-k	20 k-m	27 c-f	23 gh	24 h-l	29 c-e	-	24 ij
Emery	24 f-j	19 lm	23 e-g	30 d-h	26 f-k	31 a-e	16 h-l	24 ij
Bailey II	53 ab	53 a	43 ab	46 ab	43 ab	43 ab	-	47 a
08X09-1-2-1	37 de	35 c-h	44 ab	45 a-c	30 d-h	39 a-d	35 ab	38 cd
Walton	37 de	37 b-e	35 a-d	39 a-f	35 c-e	34 a-e	30 bc	34 de
09X38-1-5-1	28 e-i	32 d-j	28 c-f	29 e-h	34 d-f	31 a-e	25 c-f	29 e-h
09X39-1-11-2	46 b-d	40 b-d	39 a-c	38 a-f	47 a	38 a-e	37 a	41 bc
11X33-1-4-3	25 f-j	19 lm	24 d-g	23 gh	28 e-j	29 b-e	20 e-h	24 ij
N13049oIJ	19 i-k	27 g-l	28 c-f	28 e-h	29 e-i	39 a-d	18 g-j	27 g-j
N13054oI	27 f-j	36 c-g	33 b-f	41 a-e	30 d-i	33 a-e	26 cd	32 ef
N14002oIJ	25 f-j	29 e-k	23 e-g	27 e-h	18 l-n	28 c-e	12 kl	23 j
N14004oIJ	31 e-g	31 e-j	29 c-f	26 f-h	21 j-n	29 c-e	18 g-k	26 h-j
N14023oI	19 i-k	27 h-l	30 c-f	29 e-h	19 k-n	33 a-e	12 j-l	24 ij
N14027oIJ	21 h-k	30 e-j	27 c-f	33 b-g	22 i-m	24 e	19 f-i	25 h-j
N15017oI	29 e-h	28 f-l	27 d-g	30 d-h	18 l-n	27 de	20 d-h	25 h-j
N15039oI	31 e-g	37 c-f	27 d-g	29 e-h	26 g-l	29 c-e	16 h-l	27 f-j
N15041oI	31 ef	33 c-j	28 c-f	34 b-g	24 h-l	31 a-e	18 g-j	28 f-i
N15044oIF	29 e-h	20 k-m	27 d-g	34 b-g	26 g-l	40 a-d	20 e-h	28 f-j
N16005	42 cd	33 c-i	44 ab	49 a	37 b-d	36 a-e	25 c-e	38 cd
N16011	18 jk	24 j-l	35 a-e	31 c-g	21 j-n	31 a-e	11 l	24 h-j
N16028	47 b-d	38 b-e	30 c-f	35 b-g	33 d-g	35 a-e	23 d-g	34 de
N16030	28 e-i	42 bc	35 a-e	30 d-h	30 d-i	35 a-e	23 d-g	32 e-g
N16032	21 h-k	25 i-l	22 fg	30 d-h	25 h-l	34 a-e	19 f-i	25 h-j
N16034	29 e-h	27 g-l	30 c-f	31 d-g	24 h-l	29 c-e	18 g-j	27 g-j
N16035	13 k	12 m	15 g	17 h	15 mn	31 a-e	12 j-l	16 k
N16055	21 g-k	20 k-m	28 c-f	38 a-f	14 n	28 de	13 i-l	23 j
Mean	30	31	30	33	28	33	21	30
LSD	10	9	12	14	8	14	-	-

¹Pods that fell through a 38/64 inch opening but rode a 34/64 inch opening on the pre-sizer.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 14. Average of pod brightness¹ (Hunter L Score) for jumbo pods² in 2019.

Variety	Suffolk, VA		Martin County, NC		Rocky Mount, NC		Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II	Bladen, NC	SC		
Bailey	50 a-d ³	49 a	52 ab	47 a-f	55 a-e	48 b-f	47 a-e	50 a-c
Sullivan	49 a-f	47 a-c	49 b-g	47 a-f	54 a-f	48 b-f	48 a-d	49 a-d
Wynne	44 fg	48 ab	50 a-e	48 a-e	55 a-e	50 a-e	-	49 a-d
Emery	53 a	48 a	51 a-e	48 a-f	54 a-f	49 a-f	45 a-f	50 a-c
Bailey II	47 b-g	50 a	50 a-e	50 ab	55 a-d	51 a-c	-	50 ab
08X09-1-2-1	46 c-g	47 a-c	46 fg	44 ef	53 b-f	46 e-g	44 a-f	47 d-g
Walton	43 g	43 b-d	48 c-g	44 f	53 b-f	46 fg	43 f	45 g
09X38-1-5-1	47 b-g	47 a-c	45 g	44 d-f	52 d-f	46 d-g	44 c-f	46 d-g
09X39-1-11-2	45 e-g	41 d	48 c-g	45 b-f	52 ef	47 c-g	42 f	46 fg
11X33-1-4-3	43 g	42 cd	47 d-g	49 ab	53 c-f	46 fg	43 ef	46 e-g
N13049olJ	50 a-d	50 a	51 a-d	47 a-f	54 a-f	51 ab	45 a-f	50 a-c
N13054ol	49 a-e	47 ab	50 a-e	45 c-f	55 a-d	44 g	45 a-f	48 b-f
N14002olJ	51 a-c	46 a-d	51 a-d	48 a-f	53 b-f	49 a-f	43 ef	49 a-e
N14004olJ	50 a-d	48 ab	52 a-c	48 a-f	54 a-e	48 b-g	43 d-f	49 a-d
N14023ol	51 a-c	49 a	49 b-g	47 a-f	53 b-f	49 a-f	49 ab	49 a-c
N14027olJ	52 ab	47 ab	50 a-f	49 a-c	56 a-c	52 a	48 a-c	51 a
N15017ol	47 b-g	49 a	49 b-g	48 a-f	57 a	50 a-e	45 a-f	49 a-c
N15039ol	50 a-e	46 a-c	49 a-g	46 a-f	53 b-f	51 ab	46 a-f	49 a-d
N15041ol	47 b-g	47 a-c	49 b-g	47 a-f	52 c-f	52 a	45 a-f	49 a-e
N15044olF	48 a-g	47 a-c	49 b-g	46 a-f	53 b-f	49 a-f	46 a-f	48 a-f
N16005	49 a-e	47 ab	51 a-e	49 a-c	53 b-f	47 d-g	44 b-f	49 a-e
N16011	48 a-g	47 a-c	51 a-e	47 a-f	55 a-e	51 ab	47 a-e	49 a-c
N16028	48 a-g	48 ab	49 b-g	48 a-e	55 a-e	50 a-d	49 a	50 a-c
N16030	47 c-g	47 ab	50 a-e	50 a	55 a-c	48 b-g	45 a-f	49 a-d
N16032	46 c-g	47 a-c	52 ab	48 a-d	56 ab	49 a-f	44 b-f	49 a-d
N16034	49 a-e	46 a-d	47 e-g	47 a-f	53 b-f	46 d-g	43 ef	47 c-g
N16035	45 d-g	41 d	50 a-e	45 c-f	55 a-d	49 a-f	46 a-f	47 c-g
N16055	48 a-g	49 a	53 a	47 a-f	51 f	48 b-g	42 f	48 a-e
Mean	48	47	49	47	54	49	45	48
LSD	5	5	4	4	3	4	-	-

¹The higher the number, the brighter the pod color.²Pods that rode a 38/64 inch opening on the pre-sizer.³Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 15. Average of pod brightness¹ (Hunter L Score) for fancy pods² in 2019.

Variety	Suffolk, VA		Martin County, NC		Rocky	Bladen, NC	Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II	Mount, NC			
Bailey	49 a-c ³	47 ab	49 a	46 ab	55 a	48 ab	45 a-d	48 a
Sullivan	48 a-e	47 a-c	49 a	46 a-c	52 b-e	41 cd	41 d	46 a-c
Wynne	43 g-i	42 cd	28 b	44 a-d	50 de	45 a-c	-	42 e
Emery	46 b-i	44 a-d	48 a	43 a-d	52 c-e	45 a-d	46 a-c	46 a-d
Bailey II	48 a-f	48 a	47 a	46 ab	53 a-c	49 a	-	48 a
08X09-1-2-1	44 f-i	43 b-d	48 a	41 d	50 e	46 ab	43 a-d	45 b-e
Walton	43 hi	42 de	44 a	43 a-d	51 c-e	43 b-d	43 b-d	44 c-e
09X38-1-5-1	46 b-i	44 b-d	45 a	42 a-d	52 b-e	45 a-c	43 b-d	45 b-d
09X39-1-11-2	44 f-i	44 b-d	44 a	42 b-d	53 a-d	45 a-d	42 cd	45 b-e
11X33-1-4-3	43 i	38 e	45 a	43 a-d	52 b-e	41 d	43 b-d	43 de
N13049olJ	46 b-h	42 de	49 a	47 a	53 a-c	47 ab	43 a-d	47 a-c
N13054ol	45 c-i	43 b-d	48 a	41 cd	52 b-e	47 ab	43 b-d	46 a-d
N14002olJ	51 a	45 a-d	50 a	46 a-d	55 a	46 ab	45 a-d	48 a
N14004olJ	47 b-f	48 a	44 a	46 a-d	53 a-c	48 ab	45 a-d	47 ab
N14023ol	47 b-g	44 a-d	46 a	45 a-d	53 a-e	46 ab	45 a-d	46 a-c
N14027olJ	47 b-f	45 a-d	44 a	45 a-d	54 ab	49 a	43 a-d	47 a-c
N15017ol	47 a-f	46 a-d	49 a	43 a-d	53 a-c	47 ab	43 b-d	47 ab
N15039ol	48 a-f	45 a-d	48 a	43 a-d	53 a-d	48 ab	47 a	47 ab
N15041ol	48 a-e	47 ab	44 a	41 cd	53 a-e	46 ab	46 a-c	46 a-c
N15044olF	46 b-i	45 a-d	42 a	44 a-d	53 a-e	47 ab	44 a-d	46 a-d
N16005	50 ab	43 b-d	45 a	43 a-d	53 a-c	47 ab	45 a-c	47 a-c
N16011	47 b-f	43 b-d	46 a	43 a-d	53 a-d	47 ab	46 a-c	46 a-c
N16028	45 d-i	47 ab	47 a	47 ab	51 c-e	49 a	45 a-d	47 ab
N16030	45 d-i	45 a-d	44 a	41 d	52 b-e	48 ab	44 a-d	45 b-d
N16032	48 a-d	43 b-d	47 a	45 a-d	51 c-e	47 ab	44 a-d	47 a-c
N16034	45 e-i	44 b-d	45 a	45 a-d	52 c-e	47 ab	44 a-d	46 a-d
N16035	47 b-g	43 b-d	48 a	44 a-d	51 c-e	49 a	43 b-d	46 a-c
N16055	47 b-f	44 b-d	49 a	44 a-d	53 a-d	45 a-c	46 ab	47 a-c
Mean	46	44	46	44	52	46	44	46
LSD	4	4	11	5	3	8	-	-

¹The higher the number, the brighter the pod color.

²Pods that fell through a 38/64 inch opening but rode a 34/64 inch opening on the pre-sizer.

³Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

RESULTS – YIELD AND GRADE BY LOCATION**Table 16. Performance of genotypes at Tidewater AREC (Suffolk), VA, in 2019. Dig I averages of two replicated plots planted on 3 May, dug on 17 September, and combined on 25 September.**

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/Lb	Yield ¹ lb/A	Value \$/A
Bailey	0.7	1.0	88 cd ²	6.6	40 b-e	5 fg	4.7	2.0	0.6	64 a-g	72 ab	0.18 a-c	5007 a-d	890 a-e
Sullivan	0.4	1.1	95 ab	6.8	45 a-c	11 a-f	3.5	2.1	1.1	64 a-g	71 a-c	0.18 a-e	4734 a-d	830 a-f
Wynne	0.7	1.9	91 a-d	6.9	36 ef	13 a-d	3.5	3.0	3.0	58 h	68 de	0.16 g	4397 b-e	688 d-g
Emery	0.5	0.9	95 ab	6.6	49 a	11 a-f	3.0	1.7	1.1	66 a-c	72 ab	0.18 ab	5155 a-d	924 a-e
Bailey II	0.3	1.1	89 cd	6.6	45 a-c	9 c-g	2.6	2.3	1.1	66 a-e	72 ab	0.18 a-c	5489 a-c	968 a-c
08X09-1-2-1	0.7	1.0	91 a-d	7.2	40 b-e	14 a-c	2.8	3.3	1.6	61 c-h	69 b-e	0.17 c-g	5186 a-d	858 a-f
Walton	1.0	0.9	86 d	6.8	31 f	6 e-g	2.5	3.7	2.4	60 f-h	68 c-e	0.16 fg	4303 c-e	681 e-g
09X38-1-5-1	0.7	0.9	91 b-d	6.7	40 b-e	13 a-d	4.1	2.7	0.4	63 a-h	70 a-d	0.17 a-e	4870 a-d	847 a-f
09X39-1-11-2	0.6	1.2	89 cd	6.8	41 b-e	11 a-f	2.9	2.8	3.8	60 e-h	70 a-d	0.16 d-g	3923 de	616 fg
11X33-1-4-3	1.0	1.3	92 a-d	6.6	39 c-f	16 ab	3.6	3.3	1.5	61 d-h	69 b-e	0.17 c-g	3404 e	565 g
N13049oIJ	0.8	0.8	95 ab	6.7	44 a-d	10 a-g	2.3	2.4	0.6	65 a-f	70 a-d	0.17 a-e	5645 ab	986 ab
N13054ol	0.7	1.0	92 a-d	6.8	41 b-e	11 a-f	4.8	2.6	0.9	62 b-h	70 a-d	0.17 a-e	5577 a-c	964 a-c
N14002olJ	0.7	0.9	95 ab	6.6	46 a-c	13 a-d	2.5	2.3	0.9	65 a-f	70 a-d	0.17 a-e	5603 ab	977 ab
N14004olJ	0.6	1.3	96 ab	6.6	45 a-c	8 d-g	3.0	1.9	1.7	64 a-g	70 a-d	0.17 a-f	4763 a-d	819 a-f
N14023ol	0.8	1.3	93 a-c	6.8	43 a-e	12 a-f	6.0	2.3	1.1	61 c-h	71 a-d	0.17 a-e	5092 a-d	883 a-e
N14027olJ	0.6	1.0	95 ab	6.9	43 a-e	11 a-f	5.9	1.9	0.7	62 a-h	71 a-d	0.18 a-d	5754 a	1012 a
N15017ol	0.5	1.2	97 a	6.6	50 a	12 a-f	3.5	2.0	0.6	66 a-d	72 ab	0.18 ab	5116 a-d	921 a-e
N15039ol	0.7	0.8	95 ab	6.6	49 a	15 ab	2.6	2.0	1.2	67 ab	73 a	0.18 ab	5158 a-d	931 a-d
N15041ol	0.4	1.0	92 a-d	6.7	43 a-e	9 c-g	3.8	2.8	0.3	64 a-g	71 a-c	0.18 a-d	5143 a-d	903 a-e
N15044olF	0.9	1.3	94 a-c	6.8	40 b-e	10 b-g	4.6	2.7	1.3	61 d-h	69 b-e	0.17 a-g	4143 de	699 d-g
N16005	0.6	0.8	93 a-c	6.7	44 a-d	4 g	3.1	2.0	0.3	65 a-f	70 a-d	0.17 a-e	4647 a-e	814 a-f
N16011	1.0	1.1	97 a	6.6	50 a	17 a	1.8	2.8	0.6	68 a	73 a	0.18 a	4013 de	724 c-g
N16028	0.9	1.3	93 a-c	6.8	37 d-f	4 g	2.5	3.5	1.8	60 e-h	68 c-e	0.16 e-g	4519 a-e	728 c-g
N16030	0.4	1.0	92 a-d	6.5	47 ab	8 c-g	2.9	2.7	0.8	62 a-h	69 b-e	0.17 a-g	5211 a-d	890 a-e
N16032	0.5	1.4	96 ab	6.5	41 b-e	7 d-g	4.0	2.9	1.3	61 c-h	69 b-e	0.17 b-g	5210 a-d	872 a-e
N16034	0.4	0.9	96 ab	6.8	46 a-c	12 a-e	3.6	2.2	1.0	64 a-g	71 a-d	0.18 a-e	4967 a-d	865 a-e
N16035	1.8	1.4	96 ab	6.8	45 a-d	17 a	3.4	2.6	1.4	61 e-h	68 c-e	0.17 c-g	4530 a-e	754 b-g
N16055	0.6	0.7	96 ab	6.4	44 a-d	11 a-f	3.3	2.8	1.3	59 gh	67 e	0.16 e-g	4613 a-e	751 b-g
Mean	0.7	1.1	93	6.7	43	11	3.5	2.5	1.2	63	70	0.17	4863	834
LSD	-	-	6	-	8	6	-	-	-	5	3	0.01	1293	247

¹ All yields are net, adjusted to 7% standard moisture and foreign material is deducted.² Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 17. Performance of genotypes at Tidewater AREC (Suffolk), VA in 2019. Dig II averages of two replicated plots planted on 3 May, dug on 5 October, and combined on 11 October.

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/Lb	Yield ¹ lb/A	Value \$/A
Bailey	1.8	1.2	89 b-e ²	6.3	44 a-e	12 e-j	5.8	2.3	2.0	64 ab	74 a-d	0.18 a-c	5544 a-d	985 a-c
Sullivan	0.2	1.5	93 a-d	6.7	50 a	15 b-g	3.6	2.4	1.2	66 a	73 a-e	0.18 a-c	5552 a-d	1000 ab
Wynne	0.8	1.2	94 a-d	6.2	45 a-e	17 b-e	3.9	2.5	2.4	63 ab	72 c-f	0.17 a-d	4307 e	733 b-e
Emery	0.3	0.9	94 a-d	6.3	51 a	20 b-d	4.0	2.0	4.0	64 ab	74 a-d	0.18 a-c	4935 a-e	803 a-e
Bailey II	0.3	1.1	91 a-e	6.2	52 a	17 b-e	6.2	1.8	2.2	65 ab	75 a-c	0.18 a	5203 a-e	947 a-d
08X09-1-2-1	1.1	1.4	93 a-d	6.5	46 a-c	26 a	5.9	1.9	2.7	62 a-c	73 a-e	0.18 a-c	5631 a-c	973 a-c
Walton	0.8	2.0	84 e	6.4	40 c-f	16 b-f	4.0	2.4	3.7	62 a-c	72 a-e	0.17 a-d	4907 a-e	762 a-e
09X38-1-5-1	0.7	1.1	90 a-e	6.5	45 a-e	19 b-d	6.6	2.0	2.3	62 a-c	72 a-e	0.18 a-c	5432 a-d	943 a-d
09X39-1-11-2	0.7	1.4	88 c-e	6.4	45 a-d	22 ab	5.6	2.2	4.5	60 a-c	73 a-e	0.17 a-d	5482 a-d	880 a-d
11X33-1-4-3	0.7	1.5	91 a-e	6.4	33 f	18 b-e	6.1	2.8	6.7	53 d	68 g	0.15 e	4532 de	568 e
N13049oIJ	1.1	0.9	92 a-d	6.4	38 d-f	9 g-j	8.3	2.4	3.7	58 b-d	72 a-e	0.17 a-d	5777 a	958 a-c
N13054oI	1.3	2.0	87 de	6.5	37 ef	11 f-j	6.5	3.8	1.9	60 a-c	73 a-e	0.17 a-d	5294 a-e	903 a-d
N14002oIJ	0.5	1.0	95 ab	6.0	49 ab	21 a-c	5.3	1.8	4.2	62 a-c	74 a-d	0.18 a-c	5293 a-e	888 a-d
N14004oIJ	0.4	0.9	92 a-d	6.2	46 a-d	15 c-i	3.8	1.5	4.0	63 a-c	72 b-e	0.17 a-d	4217 e	696 c-e
N14023oI	0.6	1.3	95 ab	6.4	45 a-e	14 d-i	6.1	2.6	1.1	63 ab	73 a-e	0.18 a-c	5877 a	1048 a
N14027oIJ	0.6	1.3	93 a-d	6.4	45 a-e	14 d-i	6.4	2.5	0.8	62 a-c	72 b-e	0.18 a-c	5559 a-d	991 ab
N15017oI	0.5	1.4	93 a-d	6.3	51 a	14 d-i	5.0	1.1	2.4	67 a	75 a	0.19 a	5036 a-e	922 a-d
N15039oI	0.6	1.3	94 a-d	6.4	48 a-c	18 b-d	4.7	1.8	4.0	64 ab	74 a-c	0.18 a-c	5742 ab	976 a-c
N15041oI	0.4	1.8	95 a-c	6.4	45 a-d	12 e-j	6.2	2.8	1.4	64 ab	75 a-c	0.18 ab	5119 a-e	932 a-d
N15044oIF	0.6	1.2	96 ab	6.2	46 a-d	16 b-f	5.9	2.2	1.6	62 a-c	72 a-e	0.18 a-c	5087 a-e	892 a-d
N16005	0.7	1.4	87 de	6.4	41 b-f	9 ij	4.4	2.8	3.8	60 a-c	71 d-g	0.17 b-e	4870 a-e	773 a-e
N16011	0.7	1.9	94 a-d	6.3	47 a-c	20 b-d	3.9	2.5	2.2	64 ab	73 a-e	0.18 a-c	4322 e	756 b-e
N16028	0.3	1.2	91 a-e	6.3	46 a-d	9 h-j	4.9	2.5	1.3	64 ab	72 a-e	0.18 a-c	5546 a-d	978 a-c
N16030	0.6	1.1	92 a-d	6.4	41 b-f	7 j	5.0	2.4	4.1	59 b-d	70 e-g	0.17 c-e	5534 a-d	853 a-e
N16032	0.7	1.7	96 ab	6.3	48 a-c	17 b-e	5.8	1.9	2.5	65 ab	75 ab	0.18 ab	4681 b-e	848 a-e
N16034	0.5	1.1	94 a-d	6.4	45 a-e	16 b-f	3.6	1.9	2.9	64 ab	73 a-e	0.18 a-c	4883 a-e	845 a-e
N16035	0.9	1.9	93 a-d	6.6	35 f	15 c-h	5.1	3.0	5.0	56 cd	69 fg	0.16 de	4584 c-e	663 de
N16055	0.4	1.3	97 a	6.3	47 a-c	20 bc	6.0	1.8	2.5	58 b-d	68 g	0.17 b-e	5237 a-e	858 a-e
Mean	0.7	1.3	92	6.3	45	16	5.3	2.3	2.9	62.0	72	0.17	5149	870
LSD	-	-	7	-	9	6	-	-	-	7	3	0.02	1079	292

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 18. Performance of genotypes at Martin Co., NC, in 2019. Dig I averages of two replicated plots planted on 14 May, dug on 25 September, and combined on 3 October.

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total	Support	Yield ¹	Value	
						ELK									Kernels
						%									
Bailey	0.4	1.1	86 d-f ²	7.0	43 d-h	7 h	4.0	1.8	0.1	65 a-d	71 a-e	0.18 a-h	5097 ab	910 ab	
Sullivan	0.3	1.8	91 a-d	6.8	47 a-e	16 a-d	4.5	2.1	0.2	64 a-f	71 a-e	0.18 a-h	4900 a-c	876 a-c	
Wynne	0.5	1.3	91 a-c	7.1	42 e-h	8 f-h	4.3	1.9	0.1	63 d-h	69 fg	0.17 hi	3690 c	639 d	
Emery	0.4	1.3	91 a-d	7.1	52 ab	17 a-d	3.0	1.8	0.7	65 a-d	71 b-f	0.18 a-h	4930 a-c	876 a-c	
Bailey II	0.5	1.7	86 d-f	7.1	43 e-h	8 e-h	3.8	2.0	0.2	65 a-d	71 a-d	0.18 a-h	4356 a-c	779 a-d	
08X09-1-2-1	0.8	1.2	85 ef	7.0	40 gh	13 b-h	3.3	2.4	0.7	64 a-f	71 b-f	0.17 g-i	4864 a-c	849 a-d	
Walton	0.6	1.2	86 d-f	7.2	40 gh	10 d-h	3.2	2.4	0.3	64 a-f	70 c-f	0.17 f-i	4853 a-c	846 a-d	
09X38-1-5-1	0.3	1.3	89 b-e	7.0	46 b-g	16 b-f	6.6	1.6	0.4	65 a-f	73 a	0.18 a	4766 a-c	874 a-c	
09X39-1-11-2	0.4	1.0	81 f	7.2	47 a-e	15 b-g	3.5	2.4	0.5	66 a-d	72 a-c	0.18 a-g	5169 ab	928 ab	
11X33-1-4-3	0.3	0.8	91 a-d	6.9	47 a-f	24 a	8.1	1.5	0.7	61 h	71 a-e	0.18 a-h	5111 ab	911 ab	
N13049oIJ	0.5	1.3	91 a-c	6.9	38 h	7 f-h	6.2	1.9	0.5	62 f-h	70 b-f	0.18 e-i	5334 a	932 a	
N13054oI	0.5	1.3	93 a-c	7.2	43 d-h	8 f-h	4.1	1.9	0.2	63 c-h	69 e-g	0.17 g-i	5215 ab	905 ab	
N14002oIJ	0.6	1.9	91 a-d	7.2	50 a-d	16 a-e	5.0	1.3	0.2	65 a-f	71 a-e	0.18 a-e	5171 ab	932 a	
N14004oIJ	1.0	1.1	93 a-c	6.9	46 b-g	13 b-h	5.5	1.5	0.1	64 b-g	71 b-f	0.18 a-h	5035 ab	901 ab	
N14023oI	0.5	1.6	92 a-c	7.1	44 d-h	8 e-h	3.8	2.5	0.4	64 b-g	71 b-f	0.18 d-i	4734 a-c	830 a-d	
N14027oIJ	0.7	1.0	90 a-e	7.1	43 e-h	9 d-h	5.6	2.1	0.1	62 e-h	70 c-f	0.18 c-i	5390 a	944 a	
N15017oI	0.5	1.3	90 a-d	7.1	45 c-g	10 c-h	3.6	1.9	0.5	65 a-e	71 b-f	0.18 b-h	4653 a-c	827 a-d	
N15039oI	0.4	0.7	92 a-c	7.0	51 a-c	18 a-c	4.3	1.3	0.4	66 ab	72 ab	0.18 ab	5184 ab	947 a	
N15041oI	0.3	1.3	92 a-c	7.1	42 e-h	7 gh	4.8	1.8	0.3	64 b-g	71 b-f	0.18 b-h	5262 a	930 ab	
N15044oIF	0.3	1.0	93 a-c	6.9	41 f-h	9 d-h	5.9	2.9	0.2	61 gh	70 c-f	0.17 g-i	5130 ab	888 a-c	
N16005	0.4	1.4	89 b-e	6.9	43 d-h	5 h	3.1	2.1	0.2	65 a-d	71 b-f	0.18 c-h	4960 ab	877 a-c	
N16011	0.6	1.7	95 a	7.2	42 e-h	7 gh	3.1	1.8	0.0	67 a	72 a-c	0.18 a-f	4385 a-c	791 a-d	
N16028	0.3	1.3	92 a-c	6.8	48 a-e	9 d-h	3.1	1.3	0.8	65 a-d	70 b-f	0.18 b-h	5119 ab	907 ab	
N16030	0.4	1.2	89 b-e	7.0	44 c-h	10 d-h	4.2	1.8	0.6	63 c-h	70 d-f	0.17 g-i	4748 a-c	826 a-d	
N16032	0.7	1.4	88 c-e	7.3	46 b-g	9 d-h	4.0	2.2	0.2	65 a-f	71 b-f	0.18 a-h	4007 bc	708 b-d	
N16034	0.2	0.8	94 ab	6.8	48 a-e	9 d-h	4.3	1.6	0.2	66 a-c	72 a-c	0.18 a-c	5373 a	973 a	
N16035	0.6	1.4	95 a	6.9	54 a	21 ab	3.2	1.4	0.1	66 ab	71 b-f	0.18 a-d	3697 c	671 cd	
N16055	0.3	1.1	95 a	6.8	43 d-h	9 d-h	3.9	1.7	0.1	62 f-h	68 g	0.17 i	4627 a-c	788 a-d	
Mean	0.5	1.2	90	7.0	45	11	4.3	1.9	0.3	64	71	0.18	4848	859	
LSD	-	-	5	-	7	8	-	-	-	3	2	0.01	1255	223	

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 19. Performance of genotypes at Martin Co., NC, in 2019. Dig II averages of two replicated plots planted on 14 May, dug on 3 October, and combined on 10 October.

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/Lb	Yield ¹ lb/A	Value \$/A
Bailey	0.3	0.5	80 g ²	6.9	41 fg	6 gh	3.8	1.7	1.1	66 a-f	73 b-e	0.18 d-h	5698 a-e	1028 a-d
Sullivan	0.1	0.8	90 a-e	6.6	52 a-d	18 b-e	6.0	1.4	0.1	65 b-i	73 c-f	0.18 a-e	5259 d-g	970 cd
Wynne	0.3	0.7	93 a-c	7.2	50 a-f	16 b-g	4.8	1.3	0.0	66 a-f	72 c-h	0.18 a-f	5463 b-g	1002 a-d
Emery	0.6	0.7	92 a-c	6.9	56 a	15 b-g	3.3	1.7	0.3	68 a	73 a-c	0.19 a-d	5801 a-c	1079 ab
Bailey II	0.3	0.6	83 fg	7.2	51 a-e	13 b-h	4.7	1.3	0.1	68 a-c	74 ab	0.19 ab	5705 a-e	1071 a-c
08X09-1-2-1	0.4	0.5	91 a-d	6.8	45 c-g	21 bc	3.5	2.2	0.2	67 a-e	73 b-e	0.18 a-h	5136 fg	938 de
Walton	0.3	0.6	84 e-g	7.1	40 g	16 b-g	4.1	1.6	0.9	66 a-f	73 b-e	0.18 c-h	5616 a-f	1016 a-d
09X38-1-5-1	0.3	0.6	91 a-e	6.7	50 a-f	22 ab	7.6	1.5	0.6	65 d-j	74 a	0.19 ab	5363 c-g	1000 a-d
09X39-1-11-2	0.3	0.6	80 g	7.1	46 b-g	16 b-g	5.0	2.0	0.3	66 a-i	73 b-e	0.18 a-h	5201 e-g	947 de
11X33-1-4-3	0.4	0.3	93 a-c	6.8	55 a	33 a	6.8	0.9	0.2	65 c-i	73 b-e	0.19 a-c	5474 b-g	1018 a-d
N13049oIJ	0.3	0.7	93 a-c	7.0	45 c-g	7 f-h	5.1	1.4	0.8	64 e-j	72 f-i	0.18 e-h	6031 a	1073 a-c
N13054oI	0.6	0.5	88 c-f	7.3	41 g	10 d-h	6.1	2.3	0.2	63 h-k	71 g-i	0.18 g-i	5724 a-d	1016 a-d
N14002oIJ	0.4	0.6	95 ab	6.9	53 a-c	17 b-f	4.9	0.8	0.7	67 a-e	73 a-c	0.19 a-d	5897 ab	1095 a
N14004oIJ	0.3	1.0	95 ab	6.8	51 a-d	13 b-h	5.1	1.1	0.7	66 a-g	73 c-g	0.18 a-g	5346 c-g	980 b-d
N14023oI	0.2	0.5	93 a-c	7.1	42 e-g	7 gh	5.2	1.4	0.3	65 c-i	72 e-h	0.18 c-h	5899 ab	1065 a-c
N14027oIJ	0.4	0.8	94 a-c	6.9	46 b-g	11 c-h	6.1	2.0	0.4	63 g-k	72 f-i	0.18 e-h	5514 b-g	986 b-d
N15017oI	0.4	0.7	94 a-c	7.1	50 a-e	9 e-h	3.7	1.2	0.5	68 ab	73 a-c	0.19 a-d	5677 a-e	1052 a-c
N15039oI	0.1	0.6	92 a-c	6.9	54 ab	23 ab	5.7	1.4	0.6	67 a-e	74 a	0.19 a	5339 c-g	1003 a-d
N15041oI	0.3	0.8	92 a-c	7.1	44 d-g	8 e-h	4.9	2.0	1.3	64 f-k	72 d-h	0.18 hi	5662 a-e	999 a-d
N15044oIF	0.3	0.7	94 a-c	6.9	44 d-g	9 e-h	4.7	1.5	0.5	65 d-j	71 g-i	0.18 e-h	5590 a-g	999 a-d
N16005	0.2	1.1	93 a-c	6.9	39 g	4 h	4.5	2.5	0.3	64 e-j	71 g-i	0.18 hi	5592 a-g	989 b-d
N16011	0.4	1.1	94 a-c	6.8	48 a-g	13 b-h	3.1	1.7	1.1	67 a-d	73 a-d	0.18 b-h	5117 fg	933 de
N16028	0.2	0.8	85 d-g	7.0	45 c-g	7 f-h	3.3	1.7	0.7	66 a-h	71 hi	0.18 f-i	5706 a-e	1017 a-d
N16030	0.2	0.8	89 b-f	7.1	46 b-g	9 e-h	4.7	2.0	1.1	62 jk	70 j	0.17 ij	5481 b-g	940 de
N16032	0.2	0.6	93 a-c	7.0	46 b-g	10 d-h	4.0	1.7	1.6	65 b-i	72 c-h	0.18 f-h	5705 a-e	1011 a-d
N16034	0.4	0.8	93 a-c	7.0	50 a-f	13 b-h	3.8	1.4	0.3	67 a-d	73 c-f	0.18 a-f	5802 a-c	1065 a-c
N16035	0.3	0.7	96 a	6.9	52 a-d	20 b-d	5.8	1.4	0.8	63 i-k	71 ij	0.18 g-i	5545 a-g	984 b-d
N16055	0.2	0.9	93 a-c	7.3	44 d-g	11 d-h	4.5	1.6	0.5	61 k	68 k	0.17 j	5103 g	864 e
Mean	0.3	0.7	91	6.9	47	13	4.8	1.6	0.6	65	72	0.18	5551	1005
LSD	-	-	7	-	9	10	-	-	-	3	1	0.01	513	104

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 20. Performance of genotypes at Rocky Mount, NC, in 2019. Averages of two replicated plots planted on 8 May, dug on 26 September, and combined on 2 October.

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total	Support	Yield ¹	Value
						ELK								
						%								
Bailey	0.3	0.3	93 b-f ²	6.7	53 b-f	13 i-k	4.3	1.7	0.3	68 a-d	74 ab	0.19 a-c	5134 a-c	959 a-e
Sullivan	0.3	0.8	94 a-e	6.9	54 a-f	19 e-g	4.3	2.5	0.3	67 a-f	74 a-d	0.19 a-e	5252 a-c	971 a-e
Wynne	0.5	0.8	95 a-c	7.2	52 b-g	20 d-g	3.4	1.6	0.0	66 a-f	72 e-i	0.18 b-g	5215 a-c	948 a-e
Emery	0.5	0.6	92 b-f	7.0	57 a-d	24 b-d	3.3	1.8	0.1	67 a-e	72 b-h	0.18 a-f	5113 a-c	938 a-e
Bailey II	0.5	0.4	90 e-g	7.0	52 b-g	9 jk	3.5	2.0	0.1	67 a-f	72 a-h	0.18 a-g	4057 d	743 f
08X09-1-2-1	0.5	0.4	93 a-f	7.0	55 a-f	30 a	4.7	1.7	0.3	67 a-f	73 a-e	0.19 a-d	5755 a	1068 a
Walton	0.2	0.4	89 fg	7.1	51 c-g	16 g-i	2.9	2.1	0.0	68 a-d	73 a-h	0.18 a-g	5501 a-c	1008 a-d
09X38-1-5-1	0.3	0.3	93 b-f	7.0	52 b-g	22 c-f	6.3	1.7	0.1	66 a-g	74 ab	0.19 a-c	5310 a-c	993 a-d
09X39-1-11-2	0.2	0.3	87 gh	7.0	53 b-f	19 d-g	4.2	2.0	0.2	67 a-f	73 a-e	0.18 a-e	5100 a-c	943 a-e
11X33-1-4-3	0.4	0.5	84 h	6.8	53 b-f	29 ab	5.1	1.3	0.2	65 c-h	71 f-i	0.18 b-g	4649 b-d	843 d-f
N13049oIJ	0.5	0.4	95 a-d	7.0	51 c-g	13 i-k	4.4	2.0	0.1	66 a-g	73 a-g	0.18 a-f	5226 a-c	962 a-e
N13054oI	0.2	0.5	94 a-e	6.8	46 g	10 jk	6.0	2.2	0.0	64 d-h	72 a-h	0.18 a-g	5478 a-c	994 a-d
N14002oIJ	0.2	0.8	95 a-d	7.0	60 a	24 b-e	3.4	1.2	0.1	69 a	74 a-c	0.19 a	5383 a-c	1019 a-d
N14004oIJ	0.2	0.5	94 a-e	7.0	52 b-g	18 f-h	2.8	1.8	1.5	65 b-g	71 g-i	0.18 fg	4616 b-d	806 ef
N14023oI	0.3	0.5	96 ab	6.7	51 d-g	13 h-k	5.5	2.0	0.1	64 d-h	72 c-i	0.18 a-g	5207 a-c	946 a-e
N14027oIJ	0.6	0.5	95 a-c	6.9	48 fg	9 k	6.5	1.7	0.2	63 f-h	72 d-i	0.18 c-g	4920 a-d	890 b-f
N15017oI	0.4	0.4	95 a-c	6.9	58 a-c	22 c-f	2.7	1.5	0.6	68 ab	73 a-f	0.19 a-e	5129 a-c	951 a-e
N15039oI	0.3	0.6	95 a-d	7.0	58 ab	25 a-c	4.2	1.8	0.0	68 a-c	74 a	0.19 ab	5422 a-c	1024 a-c
N15041oI	0.7	0.6	94 a-e	7.1	50 d-g	13 i-k	4.8	1.4	0.0	66 a-g	72 b-h	0.18 a-f	4617 b-d	847 c-f
N15044oIF	0.6	0.4	94 a-e	7.1	49 e-g	12 i-k	4.8	2.0	0.3	65 b-g	72 c-i	0.18 c-g	5222 a-c	944 a-e
N16005	0.3	0.6	91 c-g	7.0	52 b-g	11 jk	5.0	1.7	0.4	64 d-h	72 e-i	0.18 c-g	5563 ab	1004 a-d
N16011	0.3	0.8	96 ab	6.9	51 d-g	17 g-i	2.6	1.4	0.5	66 a-g	71 hi	0.18 d-g	5030 a-c	901 a-f
N16028	0.4	0.8	93 b-f	7.0	56 a-e	13 h-k	3.4	2.2	0.0	65 b-g	71 hi	0.18 c-g	5126 a-c	922 a-e
N16030	0.4	0.6	90 d-g	7.0	51 d-g	14 h-j	3.4	2.7	0.2	64 e-h	70 i	0.18 g	4576 cd	805 ef
N16032	0.6	0.5	95 a-d	6.8	50 e-g	13 i-k	4.6	2.1	0.5	65 c-h	72 d-i	0.18 c-g	5787 a	1040 ab
N16034	0.4	0.8	93 a-f	7.2	50 d-g	17 g-i	3.4	2.1	0.5	65 b-g	71 f-i	0.18 d-g	5028 a-c	898 a-f
N16035	0.4	0.9	95 a-d	7.3	52 b-g	27 ab	5.4	2.0	0.3	63 gh	71 hi	0.18 e-g	4988 a-d	888 b-f
N16055	0.3	0.5	98 a	6.9	51 d-g	17 g-i	3.1	1.8	0.1	61 h	66 j	0.17 h	5063 a-c	849 c-f
Mean	0.4	0.5	93	6.9	52	17	4.2	1.9	0.3	66	72	0.18	5124	932
LSD	-	-	5	-	7	5	-	-	-	3	2	0.01	958	178

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 21. Performance of genotypes at Bladen County, NC, in 2019. Averages of three replicated plots planted on 10 June, dug on 16 October, and combined on 24 October.

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total	Support	Yield ¹	Value
						ELK								
						%								
Bailey	0.8	0.7	80 d-g ²	7.6	46 b-g	11 d-j	5.5	2.1	0.2	68 b-h	76 a-d	0.19 a-e	5408 a-e	1027 a-d
Sullivan	0.4	0.5	77 g	7.7	45 d-i	11 d-j	4.2	2.0	0.1	69 a-f	75 a-e	0.19 a-g	5351 a-e	1011 a-d
Wynne	0.6	0.7	87 a-f	7.3	47 a-e	15 b-f	4.9	1.9	0.4	67 d-i	74 c-h	0.19 b-h	5177 a-e	964 b-d
Emery	0.4	0.6	90 a-d	7.4	54 a	13 c-h	2.9	1.3	0.4	71 a-c	76 a-d	0.19 a-d	5356 a-e	1030 a-d
Bailey II	0.6	0.5	79 e-g	7.7	48 a-e	13 c-h	4.4	1.9	0.2	69 a-g	75 a-f	0.19 a-g	5676 ab	1072 ab
08X09-1-2-1	0.8	0.4	84 a-g	7.8	49 a-d	21 ab	3.9	2.0	0.2	69 a-e	75 a-f	0.19 a-f	5292 a-e	1001 a-d
Walton	0.6	0.9	85 a-g	9.5	47 a-e	19 a-c	2.1	1.5	0.3	72 ab	76 a-e	0.19 a-e	5685 ab	1084 ab
09X38-1-5-1	0.7	0.4	84 a-g	7.3	46 b-h	17 b-d	9.3	1.8	0.2	64 hi	75 a-e	0.19 a-f	5726 ab	1085 ab
09X39-1-11-2	0.3	0.4	77 fg	7.1	48 a-e	18 a-d	5.3	1.8	0.2	69 a-g	76 a-d	0.19 a-e	5823 a	1111 a
11X33-1-4-3	0.6	0.6	81 c-g	7.1	50 a-d	24 a	6.5	1.5	0.2	69 a-g	77 a-c	0.19 a-c	4921 c-e	953 b-d
N13049oIJ	0.7	0.5	79 e-g	7.8	36 j	6 ij	6.9	2.4	0.3	66 e-i	76 a-e	0.19 b-h	5160 a-e	962 b-d
N13054ol	0.6	0.4	86 a-g	8.1	39 f-j	9 f-j	4.0	2.4	0.3	65 f-i	72 h	0.18 h	5103 a-e	910 cd
N14002oIJ	0.7	0.4	85 a-g	7.7	48 a-e	15 b-g	3.3	2.0	0.7	69 a-e	75 a-f	0.19 a-g	5611 a-c	1055 a-c
N14004oIJ	0.5	0.4	82 b-g	7.5	45 c-h	16 b-f	4.9	2.2	0.5	67 c-i	75 a-g	0.19 b-h	5382 a-e	1002 a-d
N14023ol	0.5	0.4	86 a-g	7.3	38 h-j	7 h-j	8.8	2.1	0.6	64 i	75 a-f	0.19 c-h	5464 a-e	1012 a-d
N14027oIJ	0.6	0.3	91 ab	7.3	45 d-i	10 e-j	7.1	1.6	0.3	66 e-i	75 b-g	0.19 b-g	5438 a-e	1017 a-d
N15017ol	0.7	0.3	88 a-e	6.9	50 a-d	13 c-i	4.2	2.4	0.4	69 a-f	76 a-d	0.19 a-e	4740 e	900 d
N15039ol	0.4	0.4	85 a-g	7.0	53 ab	18 a-d	5.7	1.2	0.1	70 a-d	77 a	0.2 a	5693 ab	1118 a
N15041ol	1.1	0.8	84 a-g	7.4	37 ij	7 h-j	4.9	2.4	0.5	65 e-i	73 e-h	0.18 gh	5068 b-e	913 cd
N15044olF	0.7	0.4	85 a-g	7.4	39 g-j	7 h-j	5.8	2.0	0.4	67 c-i	76 a-e	0.19 a-g	5650 a-c	1060 ab
N16005	1.2	0.9	83 a-g	6.9	45 c-h	7 h-j	3.0	2.6	0.4	69 a-g	75 b-g	0.19 c-h	5627 a-c	1044 a-d
N16011	0.3	0.5	91 a-c	7.7	52 a-c	16 b-e	2.8	1.4	0.2	73 a	77 ab	0.2 ab	5099 a-e	995 a-d
N16028	0.5	0.5	83 a-g	6.7	47 a-e	8 g-j	4.7	2.4	0.1	68 c-i	75 a-g	0.19 b-g	5743 ab	1074 ab
N16030	0.5	0.4	79 e-g	7.3	41 e-j	5 j	3.9	2.5	0.2	66 e-i	73 f-h	0.18 f-h	5728 ab	1034 a-d
N16032	0.4	0.4	90 a-c	7.4	41 e-j	9 f-j	5.6	2.3	0.4	66 e-i	74 d-h	0.18 e-h	5707 ab	1044 a-d
N16034	0.7	0.6	93 a	7.2	44 d-i	10 e-j	3.8	2.4	0.6	68 c-i	74 c-h	0.18 d-h	5447 a-e	1004 a-d
N16035	0.5	0.4	91 a-c	6.7	46 b-f	13 c-h	5.2	2.2	0.4	65 g-i	72 gh	0.18 f-h	5565 a-d	1005 a-d
N16055	0.7	0.2	86 a-g	6.9	47 b-f	12 c-i	6.1	1.8	0.2	66 e-i	74 c-h	0.19 b-h	4868 de	906 d
Mean	0.6	0.5	84	7.4	46	13	5.0	2.0	0.3	68	75	0.19	5411	1014
LSD	-	-	10	-	8	7	-	-	-	4	3	0.01	743	146

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results by Location

Table 22. Performance of genotypes at Blackville, SC, in 2019. Averages of two replicated plots planted on 9 May, dug on 25 September and combined on 3 October.

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	0.6	2.1	86 f ²	6.0	33 b-f	11 b-f	9.5	2.8	1.6	56 ab	70 a-c	0.17 a-d	3971 a-c	663 ab
Sullivan	0.3	1.4	91 a-f	6.4	37 a-c	15 a-c	12.8	2.5	1.2	53 a-f	69 a-c	0.17 a-c	3079 a-d	520 a-e
Emery	0.5	1.4	91 a-f	5.7	42 a	14 a-d	10.7	1.9	1.4	57 a	71 a	0.17 a	2883 a-d	497 a-e
08X09-1-2-1	0.8	1.9	87 ef	6.1	29 c-i	9 d-g	12.4	3.2	1.9	49 c-j	67 c-g	0.16 b-i	3129 a-d	487 a-e
Walton	0.6	1.7	89 b-f	5.9	36 a-c	15 a-c	10.7	2.5	0.6	55 ab	69 a-c	0.17 ab	3659 a-c	622 a-c
09X38-1-5-1	0.9	1.7	92 a-e	6.0	36 a-c	16 ab	9.6	2.7	1.4	54 a-d	68 a-e	0.17 a-e	3619 a-d	598 a-d
09X39-1-11-2	0.5	1.9	88 c-f	6.2	35 a-e	13 a-e	12.1	3.6	1.7	51 a-h	69 a-d	0.16 a-f	4004 ab	651 a-c
11X33-1-4-3	0.5	1.5	87 d-f	6.1	27 e-k	13 a-e	18.2	2.8	1.2	45 h-k	67 b-f	0.16 a-g	4299 a	698 a
N13049oIJ	0.7	1.6	91 a-f	6.8	23 h-k	6 fg	13.0	3.5	2.5	45 i-k	63 gh	0.15 h-k	3515 a-d	508 a-e
N13054ol	0.6	2.0	92 a-f	6.2	25 f-k	8 e-g	12.4	3.0	3.2	48 d-j	67 c-g	0.15 d-j	3156 a-d	472 a-e
N14002oIJ	0.9	2.6	95 a	6.1	29 c-i	13 a-e	10.5	2.5	3.2	47 e-j	63 hi	0.15 h-k	2510 b-d	361 c-e
N14004oIJ	0.7	2.3	93 a-c	6.2	24 g-k	8 e-g	10.5	3.5	2.5	47 e-j	63 gh	0.15 h-k	2276 cd	340 de
N14023ol	0.4	1.4	93 a-d	5.9	21 i-k	7 fg	15.0	3.9	1.4	43 jk	63 hi	0.15 h-k	3081 a-d	454 a-e
N14027oIJ	0.6	2.5	93 a-d	5.9	19 k	5 g	14.3	3.4	2.7	43 i-k	63 gh	0.15 i-k	3185 a-d	456 a-e
N15017ol	0.6	2.3	93 a-c	5.9	27 d-j	10 c-g	10.3	2.8	2.0	49 b-i	64 f-h	0.15 e-j	2870 a-d	433 a-e
N15039ol	0.8	2.0	91 a-f	6.0	37 ab	17 a	11.7	2.5	1.5	55 a-c	70 ab	0.17 ab	3464 a-d	593 a-d
N15041ol	0.5	2.3	92 a-f	6.3	20 jk	5 fg	12.1	4.1	2.6	46 g-k	65 e-h	0.15 g-k	2953 a-d	431 a-e
N15044oIF	0.6	1.7	92 a-f	6.3	26 f-k	5 fg	12.3	2.6	0.9	49 c-j	65 e-h	0.16 c-j	2847 a-d	450 a-e
N16005	0.5	1.8	95 a	5.6	35 a-d	7 fg	9.8	2.1	1.4	54 a-d	68 a-f	0.17 a-e	4289 a	706 a
N16011	1.0	3.2	95 a	5.9	31 b-g	7 fg	9.3	2.8	1.8	53 a-e	67 c-g	0.16 b-h	2624 a-d	416 a-e
N16028	0.5	2.3	94 ab	6.0	30 b-h	8 e-g	12.7	2.4	2.4	47 e-j	65 e-h	0.15 e-j	3171 a-d	481 a-e
N16030	0.6	1.7	88 c-f	6.0	30 b-h	8 d-g	7.4	3.4	2.2	52 a-g	65 d-h	0.15 e-j	2959 a-d	446 a-e
N16032	0.5	2.8	92 a-f	6.1	21 i-k	5 fg	12.9	4.3	3.2	43 i-k	63 gh	0.14 jk	3070 a-d	433 a-e
N16034	0.7	2.7	92 a-f	5.9	25 g-k	6 fg	12.8	3.2	3.0	46 f-j	65 d-h	0.15 f-j	2415 b-d	357 de
N16035	0.8	2.0	90 a-f	6.3	27 d-j	9 c-g	11.5	2.8	1.9	48 c-j	64 f-h	0.15 e-j	2603 a-d	394 b-e
N16055	0.5	2.6	95 a	6.2	19 k	5 g	13.9	2.9	3.3	39 k	60 i	0.14 k	2004 d	263 e
Mean	0.6	2.0	91	6.0	29	10	11.9	3.0	2.0	49	66	0.16	3159	495
LSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results Across Locations

Table 23. Performance of genotypes averaged across test locations in 2019.

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	0.7	1.0	86 ij ²	6.7	43 c-h	9 j-l	5.4	2.1	0.9	64 a-d	73 a-c	0.18 a-d	5122 ab	923 ab
Sullivan	0.3	1.1	90 d-g	6.8	47 a-e	15 c-g	5.5	2.1	0.6	64 a-e	72 a-d	0.18 a-d	4875 a-c	882 a-d
Wynne	0.6	1.1	92 a-e	7.0	45 a-g	15 c-h	4.1	2.0	1.0	64 a-e	71 b-e	0.18 a-e	4708 a-c	829 a-d
Emery	0.5	0.9	92 a-e	6.7	52 a	16 b-f	4.3	1.7	1.1	66 ab	73 a-c	0.18 a-c	4882 a-c	878 a-d
Bailey II	0.4	0.9	86 h-j	6.9	48 a-c	11 h-k	4.2	1.9	0.6	67 a	73 ab	0.18 ab	5081 a-c	930 ab
08X09-1-2-1	0.7	0.9	89 e-h	6.9	43 c-h	19 ab	5.2	2.4	1.1	63 a-f	71 a-e	0.18 a-e	4999 a-c	882 a-d
Walton	0.6	1.1	86 h-j	7.0	40 f-h	14 d-h	5.0	2.3	1.1	63 a-f	71 b-e	0.18 b-e	4773 a-c	830 a-d
09X38-1-5-1	0.5	0.9	90 d-g	6.7	45 b-g	18 bc	7.1	2.0	0.8	63 a-f	72 a-d	0.18 a-d	5012 a-c	906 a-c
09X39-1-11-2	0.4	1.0	84 j	6.8	45 b-g	16 b-f	5.5	2.4	1.6	63 a-f	72 a-d	0.18 a-e	4957 a-c	868 a-d
11X33-1-4-3	0.5	0.9	88 f-i	6.6	43 c-h	22 a	7.8	2.0	1.5	60 ef	71 b-e	0.17 c-e	4627 a-c	794 a-d
N13049oJ	0.6	0.9	91 b-g	6.9	39 gh	8 kl	6.6	2.3	1.2	61 b-f	71 b-e	0.17 c-f	5241 a	911 a-c
N13054oI	0.6	1.1	90 c-g	6.9	39 h	10 i-l	6.3	2.6	1.0	61 b-f	71 c-e	0.17 d-f	5078 a-c	881 a-d
N14002oJ	0.6	1.1	93 a-d	6.8	48 a-d	17 b-e	5.0	1.7	1.4	63 a-e	72 a-e	0.18 a-e	5067 a-c	904 a-c
N14004oJ	0.5	1.1	92 a-e	6.7	44 b-h	13 f-i	5.1	1.9	1.6	62 a-f	71 c-e	0.17 c-e	4519 bc	792 b-d
N14023oI	0.4	1.0	92 a-d	6.7	41 f-h	10 i-l	7.2	2.4	0.7	61 c-f	71 c-e	0.17 b-e	5050 a-c	891 a-d
N14027oJ	0.6	1.1	93 a-d	6.8	41 e-h	10 i-l	7.4	2.2	0.7	60 d-f	71 c-e	0.17 b-e	5108 ab	899 a-d
N15017oI	0.5	1.0	93 a-d	6.7	47 a-d	13 g-i	4.7	1.8	1.0	65 a-d	72 a-d	0.18 a-d	4746 a-c	858 a-d
N15039oI	0.5	0.9	92 a-e	6.7	50 ab	19 ab	5.6	1.7	1.1	65 a-c	74 a	0.18 a	5143 ab	941 a
N15041oI	0.5	1.2	91 a-f	6.9	40 f-h	9 j-l	5.9	2.5	0.9	62 a-f	71 b-e	0.18 b-e	4832 a-c	850 a-d
N15044oIF	0.5	0.9	92 a-d	6.8	41 f-h	10 i-l	6.3	2.3	0.7	61 b-f	71 c-e	0.17 b-e	4810 a-c	847 a-d
N16005	0.5	1.1	90 d-g	6.6	43 c-h	7 l	4.7	2.3	1.0	63 a-e	71 b-e	0.18 b-e	5078 a-c	887 a-d
N16011	0.6	1.4	94 a	6.7	46 a-f	14 e-h	3.8	2.0	0.9	65 ab	72 a-d	0.18 a-d	4370 c	788 b-d
N16028	0.4	1.1	90 c-g	6.6	44 b-h	8 kl	4.9	2.3	1.0	62 a-f	70 de	0.17 c-f	4990 a-c	872 a-d
N16030	0.4	0.9	88 g-i	6.7	43 c-h	9 j-l	4.5	2.5	1.3	61 b-f	70 e	0.17 ef	4891 a-c	827 a-d
N16032	0.5	1.2	93 a-d	6.8	42 d-h	10 i-k	5.8	2.5	1.4	61 b-f	71 b-e	0.17 c-f	4881 a-c	851 a-d
N16034	0.4	1.1	93 a-c	6.7	44 c-h	12 g-k	5.0	2.1	1.2	63 a-f	71 b-e	0.18 a-e	4845 a-c	858 a-d
N16035	0.8	1.2	93 ab	6.8	44 b-h	17 b-d	5.6	2.2	1.4	60 d-f	69 ef	0.17 ef	4501 bc	765 cd
N16055	0.4	1.0	94 a	6.7	42 d-h	12 g-j	5.8	2.1	1.1	58 f	67 f	0.17 f	4502 bc	754 d
Mean	0.5	1.0	91	6.8	44	13	5.5	2.2	1.1	62	71	0.18	4880	860
LSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Two-year Averages by Location

RESULTS- TWO-YEAR AVERAGES

Table 24. Performance of genotypes at Tidewater AREC (Suffolk), VA. Two-year averages (2018-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	1.1	0.9	85 c ²	6.6	41 e-g	8 e	5.0	1.9	0.9	65 a-f	73 ab	0.18 a-c	5317 a-d	997 a
Sullivan	0.4	1.0	87 bc	6.8	46 a-e	11 c-e	3.5	2.1	0.9	66 a-d	72 a-c	0.18 a-d	5219 a-d	885 a-d
Wynne	0.8	1.2	93 a	6.7	42 d-g	12 c-e	3.1	2.3	1.9	63 d-g	71 c	0.17 d	4832 d	761 e
Emery	0.8	0.8	94 a	6.6	50 a	13 b-d	3.7	1.5	2.1	66 a-c	73 ab	0.18 a-c	5117 a-d	898 a-d
Bailey II	0.4	0.8	88 bc	6.7	47 a-d	10 c-e	4.3	2.0	1.5	65 a-e	73 ab	0.18 a-c	5224 a-d	979 ab
08X09-1-2-1	1.0	1.0	88 bc	7.2	43 c-g	21 a	4.5	2.5	2.3	62 g	71 c	0.17 d	5208 a-d	897 a-d
Walton	0.9	1.1	85 c	6.9	39 fg	15 bc	3.5	2.7	2.1	64 b-g	72 a-c	0.17 cd	5122 a-d	831 c-e
09X38-1-5-1	0.9	0.8	91 ab	6.6	46 a-e	20 a	5.8	1.9	1.4	63 c-g	72 a-c	0.18 a-d	5419 a-c	922 a-d
09X39-1-11-2	0.7	0.9	88 bc	6.8	45 a-e	18 ab	4.6	2.1	2.3	63 fg	72 a-c	0.17 b-d	5069 a-d	864 b-e
N13049oIJ	1.0	0.9	93 a	6.8	39 g	8 e	4.4	2.6	1.5	63 d-g	71 bc	0.17 cd	5543 a	961 ab
N13054oI	0.8	1.0	92 ab	6.7	39 g	9 de	5.9	2.6	1.0	62 g	72 bc	0.18 a-d	5564 a	930 a-d
N14002oIJ	0.8	0.9	94 a	6.4	48 a-c	15 bc	4.0	1.7	2.0	65 a-g	72 a-c	0.18 a-d	5454 ab	973 ab
N14004oIJ	0.7	1.0	94 a	6.6	44 b-f	10 c-e	3.9	1.8	2.1	64 a-g	72 a-c	0.18 a-d	4868 cd	823 de
N14023oI	0.7	0.9	95 a	6.7	41 e-g	9 de	5.4	2.1	1.1	63 g	71 bc	0.18 a-d	5520 a	951 a-c
N14027oIJ	0.7	1.0	94 a	6.9	42 d-g	10 c-e	5.5	2.1	0.8	63 fg	71 c	0.18 a-d	5470 ab	982 ab
N15017oI	0.7	1.3	95 a	6.6	50 ab	11 c-e	3.8	1.6	1.2	67 a	73 ab	0.18 a	5151 a-d	991 a
N15039oI	0.7	0.9	94 a	6.8	48 a-c	15 bc	3.7	1.7	1.9	66 ab	74 a	0.18 ab	5328 a-d	968 ab
N15041oI	0.7	1.0	95 a	6.8	42 d-g	9 de	5.1	2.4	0.7	64 c-g	72 a-c	0.18 a-d	5185 a-d	958 ab
N15044oIF	0.8	1.0	95 a	6.6	41 e-g	10 de	5.0	2.3	1.2	63 e-g	71 bc	0.18 b-d	4910 b-d	893 a-d
Mean	0.8	1.0	91	6.7	44	12	4.5	2.1	1.5	64	72	0.18	5238	919
LSD	-	-	5	-	6	5	-	-	-	3	2	0.01	580	121

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Two-year Averages by Location

Table 25. Performance of genotypes at Martin Co., NC. Two-year averages (2018-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total	Support	Yield ¹	Value
						ELK						Price		
						%					Kernels	\$/lb		
Bailey	0.5	0.8	86 d ²	7.4	41 c-e	6 g	3.9	1.9	0.5	66 a-d	73 a-e	0.18 a-f	5923 a	1071 ab
Sullivan	0.3	1.2	89 b-d	7.6	46 b-d	13 b-f	4.7	1.8	0.4	66 b-e	72 b-e	0.18 a-d	5263 a	956 ab
Wynne	0.5	1.1	92 a-c	7.9	46 b-d	11 c-g	3.9	1.7	0.4	65 b-f	71 de	0.18 c-h	5265 a	947 b
Emery	0.5	0.9	93 ab	7.8	55 a	16 a-d	2.5	1.7	0.5	68 a	73 a-c	0.18 ab	6060 a	1122 ab
Bailey II	0.4	1.0	87 d	7.9	50 ab	10 e-g	4.2	1.6	0.4	67 a-c	74 a-c	0.19 a	6081 a	1128 a
08X09-1-2-1	0.7	0.8	89 b-d	8.3	45 b-e	16 a-c	3.0	2.4	0.5	67 a-d	73 a-e	0.18 a-f	5570 a	1007 ab
Walton	0.5	0.8	88 cd	8.7	45 b-e	17 ab	3.2	1.7	0.6	68 ab	73 a-c	0.18 a-c	6014 a	1105 ab
09X38-1-5-1	0.4	0.9	92 a-c	7.8	49 ab	20 a	6.4	1.8	0.8	65 d-h	74 ab	0.18 ab	5871 a	1078 ab
09X39-1-11-2	0.5	0.7	79 e	7.9	46 b-d	15 a-e	3.9	2.0	0.6	66 a-d	73 a-d	0.18 a-e	5652 a	1026 ab
N13049oIJ	0.4	0.9	93 ab	8.1	40 de	7 g	4.7	1.7	0.6	65 d-h	72 de	0.18 d-h	6101 a	1085 ab
N13054oI	0.5	1.0	92 ab	8.3	41 c-e	9 fg	5.2	2.1	0.7	63 f-h	71 de	0.18 e-h	6101 a	1075 ab
N14002oIJ	0.7	1.1	95 a	7.8	51 ab	15 a-e	4.7	1.2	1.0	65 c-g	72 c-e	0.18 a-e	6042 a	1093 ab
N14004oIJ	0.5	1.0	95 a	7.4	48 b	11 d-g	4.6	1.2	1.2	65 c-g	72 c-e	0.18 b-g	5847 a	1044 ab
N14023oI	0.4	1.0	93 ab	8.1	39 e	6 g	4.6	2.1	0.7	64 e-h	71 de	0.18 f-h	5945 a	1045 ab
N14027oIJ	0.5	0.9	93 ab	8.0	41 c-e	9 fg	5.7	1.9	1.0	63 h	71 de	0.18 f-h	5977 a	1049 ab
N15017oI	0.7	1.0	94 a	7.6	47 bc	8 fg	3.5	1.7	1.0	66 a-d	72 b-e	0.18 b-g	5699 a	1024 ab
N15039oI	0.4	0.8	91 a-c	7.5	51 ab	16 a-d	4.3	1.5	0.9	67 a-c	74 a	0.19 ab	5818 a	1075 ab
N15041oI	0.5	1.1	94 a	7.9	40 de	8 g	5.1	2.0	1.2	63 gh	71 de	0.18 gh	6012 a	1050 ab
N15044oIF	0.4	1.0	95 a	7.8	41 c-e	8 g	4.7	2.3	1.0	63 gh	71 e	0.18 h	6161 a	1076 ab
Mean	0.5	0.9	91	7.9	45	12	4.4	1.8	0.7	65	72	0.18	5863	1055
LSD	-	-	4	-	-	-	-	-	-	2	1	0.01	904	178

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Two-year Averages by Location

Table 26. Performance of genotypes at Rocky Mount, NC. Two-year averages (2018-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	0.8	0.8	91 a-d ²	6.7	45 a	8 bc	5.1	2.5	0.5	65 a-c	73 ab	0.18 ab	5917 a	1065 a
Sullivan	1.0	1.4	89 b-d	6.9	44 a	12 a-c	4.8	3.7	0.6	63 a-c	72 a-d	0.18 ab	5150 a	900 bc
Wynne	0.9	1.1	92 a-c	7.1	44 a	12 a-c	3.9	2.6	0.5	64 a-c	71 a-d	0.18 ab	4981 a	882 c
Emery	0.8	1.2	92 a-c	6.9	48 a	14 a-c	3.5	1.9	0.2	67 a	73 a-c	0.18 a	5536 a	1012 a-c
Bailey II	0.8	0.7	87 d	6.9	48 a	6 c	3.9	2.3	0.3	66 a-c	72 a-d	0.18 ab	5013 a	905 a-c
08X09-1-2-1	0.9	0.9	93 ab	6.9	50 a	21 a	5.6	2.4	0.7	64 a-c	72 a-d	0.18 ab	5780 a	1039 a-c
Walton	0.8	0.7	87 d	7.0	46 a	11 a-c	3.9	2.9	0.4	65 a-c	73 a-d	0.18 ab	5928 a	1065 a
09X38-1-5-1	0.6	0.7	93 ab	6.9	47 a	17 ab	6.7	2.4	0.9	63 a-c	73 ab	0.18 ab	5765 a	1032 a-c
09X39-1-11-2	0.6	1.1	88 cd	6.9	49 a	13 a-c	4.1	2.0	0.2	67 ab	73 ab	0.18 a	5446 a	998 a-c
N13049oJ	0.9	0.9	91 a-d	7.0	41 a	8 bc	5.7	3.1	0.7	62 a-c	72 a-d	0.18 ab	5847 a	1021 a-c
N13054ol	0.7	0.9	92 a-c	6.9	41 a	7 bc	6.6	2.5	0.3	62 a-c	71 a-d	0.18 ab	5992 a	1058 ab
N14002oJ	0.7	1.2	92 a-c	6.9	52 a	15 a-c	4.1	2.5	0.9	64 a-c	72 a-d	0.18 ab	5760 a	1015 a-c
N14004oJ	0.8	0.8	93 ab	7.0	44 a	10 a-c	4.9	2.8	2.0	61 c	71 d	0.17 b	5571 a	932 a-c
N14023ol	0.7	1.2	94 a	6.8	44 a	8 bc	6.4	2.9	0.4	61 c	71 cd	0.17 ab	5882 a	1021 a-c
N14027oJ	0.8	0.8	95 a	7.0	41 a	6 c	7.3	2.6	0.6	61 bc	72 a-d	0.18 ab	5493 a	965 a-c
N15017ol	0.7	0.6	93 ab	6.9	51 a	13 a-c	4.1	2.4	0.9	65 a-c	72 a-d	0.18 ab	5813 a	1036 a-c
N15039ol	0.5	0.8	95 a	6.9	51 a	14 a-c	4.4	2.5	0.6	66 a-c	73 a	0.18 a	5846 a	1065 a
N15041ol	0.8	1.0	94 a	7.0	43 a	8 bc	5.6	2.4	0.6	63 a-c	71 a-d	0.18 ab	5581 a	976 a-c
N15044oIF	0.7	1.2	93 ab	7.0	42 a	7 bc	5.8	3.1	0.6	62 a-c	71 b-d	0.17 ab	5674 a	988 a-c
Mean	0.8	0.9	92	6.9	46	11	5.1	2.6	0.6	64	72	0.18	5360	999
LSD	-	-	5	-	13	11	-	-	-	6	2	0.01	1093	162

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Two-year Averages by Location

Table 27. Performance of genotypes at Bladen, NC. Two-year averages (2018-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	0.8	0.7	82 cd ²	7.5	43 c-g	8 e-i	4.6	1.7	1.1	67 a-d	75 ab	0.18 a-e	4933 cd	908 b-e
Sullivan	0.3	0.6	80 d	7.7	42 c-g	9 e-i	5.3	1.5	0.4	67 a-d	74 ab	0.19 a-e	5288 a-d	985 a-d
Wynne	0.5	0.8	86 a-d	7.2	44 b-e	11 d-f	5.6	1.6	0.9	65 b-e	73 bc	0.18 a-e	4773 d	870 c-e
Emery	0.5	0.5	90 ab	7.3	52 a	11 d-g	3.7	1.1	1.1	70 ab	75 ab	0.19 a-c	5069 b-d	956 a-d
Bailey II	0.6	0.5	85 a-d	6.5	49 a-c	10 e-h	5.5	1.4	0.3	68 a-c	75 ab	0.19 ab	5511 a-c	1045 ab
08X09-1-2-1	0.7	0.6	89 a-c	7.8	51 ab	23 a	4.5	1.6	0.6	68 a-c	74 ab	0.19 a-d	5372 a-d	1002 a-d
Walton	0.8	0.7	88 a-d	8.6	47 a-c	17 a-c	2.9	1.3	0.4	70 a	75 ab	0.19 a-d	5698 a	1076 a
09X38-1-5-1	0.6	0.5	90 ab	7.4	46 a-c	18 ab	8.5	1.6	1.9	63 d-f	75 ab	0.18 a-e	5782 a	1044 ab
09X39-1-11-2	0.4	0.4	83 b-d	7.2	48 a-c	16 b-d	5.6	1.4	0.4	68 a-c	75 ab	0.19 a-d	5579 ab	1052 ab
N13049oIJ	0.5	0.7	86 a-d	7.9	34 h	5 hi	7.3	1.8	1.9	63 d-f	74 bc	0.18 d-f	5207 a-d	917 b-e
N13054oI	0.5	0.5	89 a-c	7.7	37 e-h	7 f-i	5.3	1.7	1.5	63 c-f	72 c	0.18 ef	5433 a-c	949 a-e
N14002oIJ	0.6	0.6	89 a-c	7.8	47 a-c	12 c-e	4.2	1.5	1.4	66 a-e	73 bc	0.18 a-e	5480 a-c	992 a-d
N14004oIJ	0.6	0.5	89 a-c	7.6	45 a-d	12 c-f	5.8	1.6	2.0	64 c-f	74 bc	0.18 b-e	4792 d	859 de
N14023oI	0.6	0.7	89 a-c	7.4	35 gh	5 i	9.0	1.8	1.4	62 ef	74 bc	0.18 b-e	5350 a-d	961 a-d
N14027oIJ	0.6	0.7	92 a	7.4	37 d-h	7 f-i	8.1	1.6	1.7	62 ef	73 bc	0.18 c-f	5427 a-c	960 a-d
N15017oI	0.6	0.6	88 a-d	7.2	43 b-f	8 e-i	5.1	2.2	1.0	66 b-e	74 bc	0.18 a-e	4920 cd	890 c-e
N15039oI	0.5	0.5	88 a-d	7.3	48 a-c	12 c-e	5.4	1.0	0.6	69 ab	76 a	0.19 a	5312 a-d	1021 a-c
N15041oI	0.7	1.0	87 a-d	7.5	32 h	5 i	6.3	2.2	3.1	60 f	72 c	0.17 f	5029 b-d	800 e
N15044oIF	0.6	0.6	90 a-c	7.4	36 f-h	6 g-i	6.3	1.6	1.4	64 c-f	74 bc	0.18 b-e	5412 a-c	971 a-d
Mean	0.6	0.6	87	7.5	43	11	5.7	1.6	1.2	66	74	0.18	5282	961
LSD	-	-	8	-	8	5	-	-	-	5	2	0.01	606	154

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Two-year Averages by Location

Table 28. Performance of genotypes at Blackville, SC. Two-year averages (2018-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	0.5	1.4	89 ab ²	6.1	38 a-c	12 b-d	11.7	3.1	1.3	56 a	72 a	0.18 ab	4154 ab	752 a
Sullivan	0.6	1.0	91 ab	6.2	39 a-c	13 a-d	14.7	2.5	1.0	54 a-c	72 a	0.18 ab	3720 ab	692 a
Wynne	0.6	1.2	92 ab	6.2	39 a-c	16 a-c	21.9	2.6	1.4	50 b-d	76 a	0.19 a	4498 ab	892 a
Emery	0.4	1.3	91 ab	6.0	42 ab	16 a-c	12.4	2.2	1.4	57 a	73 a	0.18 ab	3496 ab	654 a
Bailey II	0.5	0.9	89 ab	6.2	42 ab	14 a-d	15.6	3.0	1.2	55 a-c	75 a	0.18 ab	4682 a	917 a
08X09-1-2-1	0.8	1.5	91 ab	6.1	39 ab	18 ab	12.8	2.7	1.4	53 a-c	71 a	0.17 ab	4255 ab	776 a
Walton	0.5	1.4	90 ab	5.9	40 ab	18 ab	13.8	2.1	0.7	55 ab	72 a	0.18 ab	4371 ab	816 a
09X38-1-5-1	1.0	1.3	91 ab	5.9	41 ab	20 a	14.4	2.3	1.4	54 a-c	72 a	0.18 ab	4494 ab	837 a
09X39-1-11-2	0.6	1.3	89 ab	6.0	40 ab	18 ab	13.8	3.3	1.3	53 a-c	71 a	0.17 ab	4668 a	843 a
N13049oIJ	0.7	1.3	90 ab	6.5	28 bc	9 cd	17.1	3.2	2.5	46 d	69 a	0.16 ab	4223 ab	713 a
N13054oI	0.5	1.3	93 ab	6.2	31 a-c	11 cd	15.5	2.7	2.4	50 b-d	71 a	0.17 ab	4039 ab	711 a
N14002oIJ	0.7	1.9	96 a	6.0	37 a-c	16 a-c	13.7	2.2	3.1	49 cd	68 a	0.16 ab	3293 ab	564 a
N14004oIJ	0.7	1.5	92 ab	6.1	32 a-c	11 cd	14.8	2.7	3.2	49 cd	69 a	0.16 ab	2995 ab	504 a
N14023oI	0.3	1.2	91 ab	6.1	29 bc	9 cd	16.7	3.2	1.8	47 d	68 a	0.16 ab	3927 ab	676 a
N14027oIJ	0.6	1.7	88 b	6.0	25 c	6 d	17.7	2.9	3.4	45 d	68 a	0.16 b	3951 ab	635 a
N15017oI	0.7	1.7	89 ab	6.0	37 a-c	12 b-d	12.1	2.7	1.8	53 a-c	69 a	0.17 ab	4066 ab	729 a
N15039oI	1.0	1.4	93 ab	6.0	42 a	19 a	14.5	2.3	1.7	55 a-c	73 a	0.18 ab	4106 ab	766 a
N15041oI	0.6	1.6	89 ab	6.2	30 bc	9 cd	14.4	3.3	2.4	49 cd	69 a	0.16 ab	3919 ab	672 a
N15044oIF	0.7	1.3	91 ab	6.3	35 a-c	11 cd	12.3	2.6	0.9	54 a-c	70 a	0.17 ab	3819 ab	694 a
Mean	0.6	1.4	91	6.1	36	14	14.7	2.7	1.8	52	71	0.17	4014	721
LSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.

²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Two-year Averages by Location

Table 29. Performance of genotypes at all locations. Two-year averages (2018-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
						ELK %								
Bailey	0.7	0.9	86 de ²	6.9	41 e-g	8 e-g	5.6	2.1	0.8	64 a-c	73 a-e	0.18 a-c	5355 a-c	980 ab
Sullivan	0.5	1.1	88 cd	7.1	44 c-e	12 cd	5.9	2.2	0.6	64 a-d	72 b-g	0.18 a-d	5017 bc	894 b-d
Wynne	0.7	1.1	91 ab	7.2	43 de	12 cd	5.3	2.1	1.0	63 a-e	72 d-h	0.18 c-f	4953 c	864 cd
Emery	0.6	0.9	92 ab	7.0	50 a	14 bc	4.6	1.6	1.1	66 a	73 a-c	0.18 ab	5208 a-c	952 a-d
Bailey II	0.5	0.8	87 de	7.0	48 a-c	10 d-g	5.3	1.9	0.8	66 ab	74 ab	0.18 ab	5458 a-c	1019 a
08X09-1-2-1	0.8	0.9	90 bc	7.4	45 b-d	19 a	5.4	2.4	1.2	63 a-f	72 c-h	0.18 c-f	5280 a-c	946 a-d
Walton	0.7	1.0	87 d	7.4	43 d-f	16 b	5.5	2.1	0.9	64 a-c	73 a-e	0.18 a-d	5394 a-c	965 a-c
09X38-1-5-1	0.7	0.8	91 ab	7.0	46 b-d	19 a	7.7	1.9	1.2	62 c-g	73 a-d	0.18 a-c	5517 ab	988 ab
09X39-1-11-2	0.6	0.9	85 e	7.1	46 b-d	16 b	5.8	2.1	1.1	64 a-e	73 b-f	0.18 a-e	5305 a-c	953 a-d
N13049oIJ	0.7	0.9	91 ab	7.3	37 h	7 g	6.9	2.4	1.4	61 d-g	71 f-h	0.17 f	5509 ab	963 a-c
N13054oI	0.6	1.0	92 ab	7.3	38 gh	9 e-g	7.1	2.3	1.1	61 d-g	71 f-h	0.18 ef	5542 a	961 a-d
N14002oIJ	0.7	1.1	94 a	7.0	48 a-c	15 bc	5.6	1.7	1.6	63 b-f	72 e-h	0.18 c-f	5361 a-c	958 a-d
N14004oIJ	0.6	0.9	93 a	6.9	44 de	11 de	6.1	1.9	2.0	62 c-g	72 e-h	0.18 d-f	4970 c	861 d
N14023oI	0.5	1.0	93 a	7.1	38 gh	7 g	7.4	2.3	1.0	60 fg	71 h	0.17 f	5441 a-c	950 a-d
N14027oIJ	0.6	1.0	93 a	7.2	38 gh	8 fg	7.9	2.1	1.3	60 g	71 h	0.17 f	5395 a-c	946 a-d
N15017oI	0.7	1.1	93 a	6.9	46 b-d	10 d-f	5.1	2.0	1.1	64 a-c	72 b-h	0.18 b-e	5214 a-c	955 a-d
N15039oI	0.6	0.9	92 ab	7.0	48 ab	15 b	5.8	1.8	1.2	65 ab	74 a	0.18 a	5365 a-c	991 ab
N15041oI	0.6	1.1	92 ab	7.1	38 gh	8 fg	6.7	2.4	1.4	61 e-g	71 gh	0.17 f	5275 a-c	923 a-d
N15044oIF	0.6	1.0	93 a	7.1	40 f-h	8 e-g	6.2	2.4	1.0	62 c-g	71 f-h	0.18 ef	5293 a-c	942 a-d
Mean	0.6	1.0	91	7.2	43	12	6.1	2.1	1.2	63	72	0.18	5309	948
LSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Three-year Averages by Location

Table 30. Performance of genotypes at Tidewater AREC (Suffolk), VA. Three-year averages (2017-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	0.9	0.8	87 cd ²	6.8	42 de	9 e	4.6	2.2	0.9	65 a-c	73 a	0.18 a-c	5733 ab	1055 ab
Sullivan	0.4	1.0	88 b-d	6.9	43 b-e	12 c-e	3.8	2.9	0.8	63 c-e	70 bc	0.17 cd	5418 ab	904 bc
Wynne	0.8	1.1	93 a	6.8	42 c-e	13 c-e	3.2	2.6	1.6	62 de	70 c	0.17 d	5065 b	820 c
Emery	0.7	0.9	95 a	6.8	51 a	15 bc	3.8	1.7	1.6	66 ab	73 a	0.18 ab	5532 ab	983 ab
Bailey II	0.4	0.8	88 cd	6.9	48 ab	10 de	4.2	2.0	1.0	66 a	73 a	0.18 a	5627 ab	1049 ab
08X09-1-2-1	0.8	1.0	89 bc	7.3	42 b-e	21 a	3.7	2.6	1.6	63 b-e	71 a-c	0.17 b-d	5607 ab	978 ab
Walton	0.9	1.0	85 d	6.9	40 e	15 b-d	3.1	2.6	1.4	65 a-c	72 ab	0.18 a-d	5591 ab	950 a-c
09X38-1-5-1	0.8	0.8	92 ab	6.8	44 b-e	19 ab	6.5	2.5	1.3	61 e	72 a-c	0.18 a-d	5745 ab	981 ab
09X39-1-11-2	0.7	0.9	87 cd	6.8	46 a-d	18 ab	4.4	2.5	1.7	63 c-e	72 ab	0.18 a-d	5473 ab	946 a-c
N14002oIJ	0.6	0.8	95 a	6.6	50 a	16 bc	4.3	1.6	1.7	64 a-e	72 a-c	0.18 a-c	6098 a	1079 a
N14004oIJ	0.6	0.9	94 a	6.7	47 a-c	13 c-e	4.6	1.7	1.5	65 a-d	73 a	0.18 a-c	5491 ab	972 a-c
N14023oI	0.6	0.9	95 a	6.9	41 de	10 e	5.3	2.3	1.0	63 c-e	71 a-c	0.18 a-d	5959 a	1034 ab
Mean	0.7	0.9	91	6.8	45	14	4.3	2.3	1.3	64	72	0.18	5611	979
LSD	-	-	4	-	5	5	-	-	-	3	2	0.01	745	153

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.

²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Three-year Averages by Location

Table 31. Performance of genotypes at Martin Co., NC. Three-year averages (2017-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total	Support	Yield ¹ lb/A	Value \$/A
						ELK					Kernels	Price \$/lb		
						%								
Bailey	0.6	0.8	90 bc ²	7.1	45 cd	8 f	3.3	2.0	0.2	68 a-c	73 a-c	0.18 a-c	6115 a	1119 a
Sullivan	0.3	1.1	88 bc	7.3	47 cd	14 b-e	3.7	1.9	0.3	66 b-d	72 a-c	0.18 a-c	5678 a	1037 a
Wynne	0.5	1.0	92 a-c	7.5	47 b-d	13 c-f	3.2	1.8	0.3	67 b-d	72 c	0.18 bc	5682 a	1033 a
Emery	0.6	0.9	92 ab	7.4	55 a	20 ab	2.5	1.6	0.4	69 a	74 ab	0.19 a	6282 a	1174 a
Bailey II	0.5	0.9	87 c	7.4	49 a-c	12 d-f	3.7	1.8	0.6	68 a-d	74 ab	0.18 a-c	6335 a	1174 a
08X09-1-2-1	0.8	0.8	90 a-c	7.9	47 b-d	17 b-d	2.7	2.3	0.3	67 a-d	73 a-c	0.18 a-c	5867 a	1068 a
Walton	0.6	0.7	87 c	8.2	48 bc	19 a-c	2.7	2.0	0.3	69 ab	74 a	0.19 ab	6277 a	1165 a
09X38-1-5-1	0.5	0.8	92 a-c	7.5	50 a-c	24 a	6.7	1.9	0.7	65 d	74 a	0.19 ab	6333 a	1175 a
09X39-1-11-2	0.7	0.7	81 d	7.4	50 a-c	20 ab	4.0	1.9	0.4	67 a-d	73 a-c	0.18 a-c	5998 a	1102 a
N14002oIJ	0.8	1.1	95 a	7.4	53 ab	17 b-d	3.9	1.2	0.7	67 a-d	73 a-c	0.18 a-c	6430 a	1182 a
N14004oIJ	0.6	0.9	92 a-c	7.2	50 a-c	16 b-d	4.0	1.4	0.9	66 cd	72 a-c	0.18 a-c	6251 a	1135 a
N14023oI	1.0	1.1	93 ab	7.6	42 d	9 ef	4.4	2.0	0.5	65 cd	72 bc	0.18 c	6284 a	1127 a
Mean	0.6	0.9	90	7.4	49	16	3.7	1.8	0.5	67	73	0.18	6128	1124
LSD	-	-	5	-	6	6	-	-	-	3	2	0.01	809	170

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.

²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Three-year Averages by Location

Table 32. Performance of genotypes at Rocky Mount, NC. Three-year averages (2017-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total Kernels	Support	Yield ¹ lb/A	Value \$/A
						ELK %						Price \$/lb		
Bailey	0.7	1.0	91 b-e ²	6.7	47 a	12 ab	4.8	2.3	0.6	65 a-c	72 a-c	0.18 ab	6286 a	1128 a
Sullivan	0.9	1.7	90 b-e	6.7	48 a	14 ab	4.0	3.1	0.5	64 a-c	71 a-c	0.18 ab	5539 a	980 a
Wynne	0.7	1.3	93 a-c	7.0	47 a	16 ab	3.7	2.5	0.5	64 a-c	71 a-c	0.18 ab	5699 a	1007 a
Emery	0.7	1.3	93 a-c	6.8	53 a	19 ab	3.5	1.6	0.1	68 a	73 a	0.18 a	5943 a	1100 a
Bailey II	0.6	0.9	88 e	6.7	49 a	9 b	3.6	2.6	0.3	65 a-c	71 a-c	0.18 ab	5709 a	1008 a
08X09-1-2-1	0.8	1.2	94 a-c	6.7	51 a	19 a	4.6	2.2	0.8	64 a-c	71 a-c	0.18 ab	6366 a	1130 a
Walton	0.7	1.1	88 de	6.8	48 a	14 ab	3.7	2.4	0.4	66 ab	73 ab	0.18 ab	6239 a	1135 a
09X38-1-5-1	0.5	1.0	92 a-d	6.8	48 a	19 ab	6.4	2.3	1.0	62 bc	72 a-c	0.18 ab	6342 a	1116 a
09X39-1-11-2	0.6	1.3	90 c-e	6.8	50 a	15 ab	3.9	1.9	0.3	66 ab	72 a-c	0.18 ab	6116 a	1112 a
N14002oIJ	0.6	1.1	94 ab	6.8	53 a	18 ab	3.8	2.1	0.8	64 a-c	71 bc	0.18 ab	6456 a	1136 a
N14004oIJ	0.8	1.2	94 ab	6.9	48 a	14 ab	4.5	2.4	1.6	62 c	70 c	0.17 b	6195 a	1058 a
N14023oI	0.7	1.4	95 a	6.7	46 a	12 ab	5.9	2.5	0.6	61 c	70 c	0.17 b	6338 a	1100 a
Mean	0.7	1.2	92	6.8	49	15	4.4	2.3	0.6	64	72	0.18	6102	1084
LSD	-	-	4	-	10	10	-	-	-	4	2	0.01	1228	211

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Three-year Averages by Location

Table 33. Performance of genotypes at Bladen, NC. Three-year averages (2017-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super	SS	OK	DK	SMK	Total Kernels	Support	Yield ¹ lb/A	Value \$/A
						ELK %						Price \$/lb		
Bailey	0.7	0.8	84 bc ²	7.0	44 c	10 de	4.2	1.8	0.8	67 a-d	74 a	0.18 ab	5231 b-d	956 b-d
Sullivan	0.3	0.9	84 c	7.1	45 bc	12 c-e	4.8	1.4	0.3	67 a-d	74 a	0.19 ab	5392 a-c	998 a-c
Wynne	0.4	0.9	88 a-c	6.7	46 bc	12 c-e	4.8	1.6	0.6	66 b-d	73 a	0.18 ab	5003 cd	907 cd
Emery	0.4	0.6	92 a	6.8	53 a	14 b-d	3.2	1.2	0.8	69 a	74 a	0.19 a	5438 a-c	1018 a-c
Bailey II	0.4	0.7	86 a-c	6.3	50 a-c	12 c-e	4.8	1.5	0.2	68 a-c	74 a	0.19 a	5824 a	1090 a
08X09-1-2-1	0.6	0.6	89 a-c	7.2	49 a-c	19 ab	3.2	1.4	0.4	68 ab	73 a	0.18 ab	5485 a-c	1011 a-c
Walton	0.7	0.8	87 a-c	7.8	46 bc	16 a-c	2.4	1.4	0.3	70 a	74 a	0.19 ab	5560 ab	1034 ab
09X38-1-5-1	0.4	0.4	91 a	6.9	49 a-c	20 a	7.3	1.3	1.3	65 de	75 a	0.19 ab	5932 a	1091 a
09X39-1-11-2	0.4	0.6	87 a-c	6.8	48 a-c	17 a-c	4.9	1.7	0.3	67 a-d	74 a	0.19 ab	5497 a-c	1023 a-c
N14002oIJ	0.5	0.7	91 ab	7.1	50 ab	16 a-c	3.9	1.2	1.1	68 a-c	74 a	0.19 ab	5586 ab	1029 ab
N14004oIJ	0.5	0.7	91 a-c	7.0	45 bc	13 cd	4.9	1.7	1.4	65 c-e	73 a	0.18 b	4774 d	853 d
N14023ol	0.5	0.8	90 a-c	6.9	37 d	7 e	7.9	1.8	1.1	62 e	73 a	0.18 b	5563 ab	991 a-c
Mean	0.5	0.7	88	7.0	47	14	4.7	1.5	0.7	67	74	0.18	5440	1000
LSD	-	-	7	-	6	6	-	-	-	3	2	0.01	555	118

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.

²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Three-year Averages by Location

Table 34. Performance of genotypes at Blackville, SC. Three-year averages (2017-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
Bailey	0.7	1.2	85 c ²	5.9	40 ab	11 cd	11.0	3.2	1.1	57 ab	72 ab	0.18 ab	4427 a	810 a
Sullivan	0.6	1.0	89 a-c	5.9	41 ab	13 b-d	13.3	2.7	0.8	55 a-d	72 ab	0.18 ab	3930 a	730 a
Wynne	0.8	1.0	88 bc	5.8	45 a	15 a-c	14.6	2.7	1.1	55 a-c	73 a	0.18 a	4792 a	924 a
Emery	0.5	1.1	90 a-c	5.8	46 a	15 a-c	10.5	2.0	1.1	60 a	73 a	0.18 a	3961 a	755 a
Bailey II	0.5	0.9	89 a-c	6.2	42 ab	14 a-d	15.6	3.0	1.2	55 a-d	75 a	0.18 a	4682 a	917 a
08X09-1-2-1	0.8	1.5	91 a-c	6.1	39 ab	18 ab	12.8	2.7	1.4	53 b-d	71 ab	0.17 ab	4255 a	776 a
Walton	0.5	1.4	90 a-c	5.9	40 ab	18 ab	13.8	2.1	0.7	55 a-c	72 ab	0.18 a	4371 a	816 a
09X38-1-5-1	1.0	1.3	91 a-c	5.9	41 ab	20 a	14.4	2.3	1.4	54 a-d	72 ab	0.18 ab	4494 a	837 a
09X39-1-11-2	0.6	1.3	89 a-c	6.0	40 ab	18 ab	13.8	3.3	1.3	53 b-d	71 ab	0.17 ab	4668 a	843 a
N14002oIJ	0.7	1.6	95 a	5.9	45 a	17 ab	12.2	2.2	2.5	52 b-d	69 ab	0.17 ab	3930 a	703 a
N14004oIJ	0.7	1.2	91 ab	5.9	38 ab	11 cd	13.1	2.8	2.9	51 cd	69 ab	0.17 ab	3706 a	641 a
N14023oI	0.4	1.8	91 a-c	6.0	31 b	8 d	15.2	3.1	2.2	48 d	68 ab	0.16 b	4356 a	746 a
Mean	0.7	1.3	90	5.9	41	14	13.3	2.7	1.5	54	71	0.17	4238	776
LSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.

²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Three-year Averages by Location

Table 35. Performance of genotypes at all locations. Three-year averages (2017-2019).

Variety	LSK	FM	Fancy	Water	ELK	Super ELK %	SS	OK	DK	SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
	Bailey	0.7	0.9	87 d ²	6.7	43 e	9 f	5.1	2.2	0.7	65 a-d	73 a-c	0.18 a-c	5663 ab
Sullivan	0.4	1.1	88 d	6.9	45 de	13 e	5.4	2.4	0.5	63 c-e	72 cd	0.18 cd	5293 b	941 cd
Wynne	0.6	1.0	91 bc	6.9	45 c-e	13 e	4.7	2.2	0.8	64 c-e	71 d	0.18 cd	5308 b	935 d
Emery	0.6	0.9	93 a-c	6.8	52 a	17 c	4.3	1.6	0.9	67 a	73 a	0.18 a	5567 ab	1027 a-d
Bailey II	0.5	0.8	87 d	6.9	48 bc	11 ef	4.7	2.0	0.6	66 ab	73 a	0.18 ab	5845 a	1082 a
08X09-1-2-1	0.8	0.9	90 c	7.2	46 c-e	19 ab	4.4	2.3	0.9	64 a-e	72 b-d	0.18 cd	5645 ab	1012 a-d
Walton	0.7	1.0	87 d	7.2	44 de	16 cd	4.6	2.1	0.7	65 a-c	73 ab	0.18 a-c	5701 ab	1031 a-c
09X38-1-5-1	0.6	0.8	92 bc	6.9	47 cd	21 a	7.5	2.1	1.1	62 ef	73 ab	0.18 a-c	5914 a	1062 ab
09X39-1-11-2	0.6	0.9	86 d	6.9	47 cd	18 bc	5.2	2.2	0.9	64 b-e	73 a-c	0.18 bc	5650 ab	1019 a-d
N14002oIJ	0.6	1.0	94 a	6.8	51 ab	17 c	5.2	1.6	1.3	64 c-e	72 cd	0.18 cd	5861 a	1056 ab
N14004oIJ	0.6	1.0	93 a-c	6.8	47 cd	14 de	5.7	1.8	1.5	63 d-f	72 b-d	0.18 cd	5451 ab	967 b-d
N14023oI	0.6	1.1	93 ab	6.9	40 f	9 f	6.9	2.3	1.0	61 f	71 d	0.18 d	5820 a	1023 a-d
Mean	0.6	0.9	90	6.9	46	15	5.3	2.1	0.9	64	72	0.18	5642	1015
LSD	-	-	-	-	-	-	-	-	-	-	-	-	-	-

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.

²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

Plant Material for Rain Shelter Trial

PLANT MATERIAL FOR RAIN SHELTER TRIAL**Table 36. Names and parentage of the genotypes (advanced breeding lines and commercial varieties) evaluated at TAREC Suffolk Rain Shelters in 2019.**

Genotype number	Variety/line	Parentage
1	N04074FCT (ck)	N97070 / N96029
2	SPT06-07 (ck)	DP-1 (UF97318) // C-99R (UF94320) / GP-NC WS 12
3	N14004	Bailey // X05027 (F01), Bailey / N02060ol (Per)
4	N14023	Bailey /4/ X07019 (BC2F1-05: F01), Bailey // X05028 (F01), Bailey / N02064ol, X05250 (BC1F1-06-02: F03 ol ol) /3/ Bailey
5	N15017	Bailey /4/ X07018 (BC2F1-07: F01), Bailey // X05028 (F01), Bailey / N02064ol, X05250 (BC1F1-06-01: F03 ol ol) /3/ Bailey
6	N15041	N03079FT*2 / N02059ol (Per), X03155 (ol ol, BC1F1-04-01-S-04-S-01: F09) // N05044FCsm
7	N16032	N08070olJC /3/ X11005 (F1), N08070olJC // X08054 (F1-03-01: F04), N08059olFCT / GP-NC WS 16 (SPT 06-06)
8	N16034	N08070olJC /3/ X11010 (F1), N08070olJC // X08055 (F1-04-04: F04), N08059olFCT / GP-NC WS 17 (SPT 06-07)
9	N16035	Wynne /3/ X11015 (F1), Wynne // X08054 (F1-03-01: F04), N08059olFCT / GP-NC WS 16 (SPT 06-06)
10	N16055	N09049olC /3/ X11034 (F1), N09049olC // X08054 (F1-02-02: F04), N08059olFCT / GP-NC WS 16 (SPT 06-06)
11	N17033	N03079FT*2 / N02054ol (11), N09039olF // N12008olCLSmT, Bailey*4 / N02060ol (Per)
12	N17034	N03079FT*2 / N02054ol (11), N09039olF /3/ CRSP 1050-110, Florida MDR 98 / Bayo Grande, 0020-20 // FNC94022-1-2-1-1-b3-B (16), N91026E / PI 576638
13	N17045	Bailey*2 / Brantley, N10053ol /3/ CRSP 1050-110, Florida MDR 98 / Bayo Grande, 0020-20 // FNC94022-1-2-1-1-b3-B (16), N91026E / PI 576638
14	N17047	Bailey*2 / Brantley, N10053ol /3/ CRSP 1050-110, Florida MDR 98 / Bayo Grande, 0020-20 // FNC94022-1-2-1-1-b3-B (16), N91026E / PI 576638



Picture of Rainout Shelters used in this test.

Cultural Practices for Rain Shelter Trial

Table 37. Cultural practices for Rain Shelter Trial in 2019.

Planting Date:	May 22, 2019	Shelters covered:	7/10/2019
Harvest Date:	October 30, 2019	Shelters uncovered:	9/4/2019
Cultivation:	Conventional Till		
Landplaster:	7/1/2019	Landplaster	1800 lb/A
Fertility:	5/22/2019	Optimize Lift (in furrow)	16 oz/A
	6/1/2019	Manganese 8%	1 qt/A
	6/11/2019	Boron 10%	1 qt/A
	6/26/2019	Boron 10%	1 qt/A
	8/2/2019	ENC (foliar 11-6-6)	1 qt/A
Herbicides:	6/11/2019	Dual Magnum	16 oz/A
	6/11/2019	Prowl H ₂ O	24/oz/A
	6/26/2019	Dual Magnum	8 oz/A
	7/6/2019	Dual Magnum	1 pt/A
Insecticides:	5/22/2019	Admire Pro	12 oz/A (in-furrow)
	6/26/2019	Radiant	6 oz/A
	6/28/2019	Orthene	8 oz/A
	6/28/2019	Besiege	10 oz/A
	7/10/2019	Danitol	10/oz/A
	7/10/2019	Bifenthrin	6 oz/A
	8/8/2019	Comite	32 oz/A
	8/14/2019	Steward	11 oz/A
Fungicides:	5/22/2019	Proline	5.7 oz/A (in-furrow)
	6/28/2019	Bravo	1 pt/A
	7/3/2019	Provost	10 oz/A
	7/17/2019	Bravo	1 pt/A
	7/31/2019	Provost	10 oz/A
	8/14/2019	Bravo	1 pt/A
	8/28/2019	Bravo	1 pt/A
	9/4/2019	Provost	10 oz/A
	9/19/2019	Bravo	1 pt/A
	10/9/2019	Bravo	1 pt/A

2019 Results for Rain Shelter Trial

Table 38. Average percent of jumbo¹ and fancy² pods based on farmers' grade and average of pod brightness³ (Hunter L Score) for fancy and jumbo pods at TAREC Suffolk Rain Shelters in 2019

Variety	% Jumbo	L Score Jumbo	% Fancy	L Score Fancy
N04074FCT (ck)	32 f ⁴	46 a	45 a	44 ab
SPT06-07 (ck)	5 g	45 a	25 de	47 a
N14004	58 bc	48 a	26 c-e	43 ab
N14023	68 ab	47 a	23 e	43 ab
N15017	65 ab	43 a	23 e	41 b
N15041	60 bc	44 a	27 c-e	41 b
N16032	66 ab	46 a	23 e	42 ab
N16034	60 bc	48 a	28 b-e	45 ab
N16035	73 a	47 a	19 e	43 ab
N16055	61 bc	47 a	28 b-e	44 ab
N17033	41 ef	43 a	35 bc	44 ab
N17034	45 de	45 a	38 ab	45 ab
N17045	53 cd	47 a	33 b-d	44 ab
N17047	51 c-e	48 a	35 b-d	45 ab
Mean	52	46	29	44
LSD	11	6	10	4

¹ Pods that rode a 38/64 inch opening on the pre-sizer.

² Pods that fell through a 38/64 inch opening but rode a 34/64 inch opening on the pre-sizer.

³The higher the number, the brighter the pod.

⁴ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

2019 Results for Rain Shelter Trial

Table 39. Performance of genotypes at TAREC Suffolk Rain Shelters in 2019.

Variety	LSK	FM	Fancy	Water	ELK	Super				SMK	Total Kernels	Support Price \$/lb	Yield ¹ lb/A	Value \$/A
						ELK	SS	OK	DK					
N04074FCT (ck)	1.2	1.7	77 de ²	8.7	23 b-e	4 a-c	3.6	2.5	1.6	59 ab	67 bc	0.16 a-c	2807 a	449 ab
SPT06-07 (ck)	4.3	1.3	30 f	7.6	20 b-e	1 c	8.0	2.8	1.1	62 a	74 a	0.18 a	2848 a	501 a
N14004	2.4	3.7	84 bc	7.8	17 c-e	3 a-c	3.1	3.3	3.4	46 d	56 g	0.13 f	1399 b	170 d
N14023	1.4	2.0	91 a	8.6	15 e	2 a-c	4.1	2.8	2.9	48 d	57 g	0.13 f	2310 ab	297 b-d
N15017	2.0	2.5	88 a-c	8.5	18 c-e	1 bc	2.1	3.4	4.0	50 cd	60 d-g	0.13 ef	1928 ab	246 cd
N15041	2.8	2.3	86 a-c	7.1	15 de	2 a-c	6.7	2.6	3.4	47 d	59 e-g	0.14 ef	2438 ab	319 a-d
N16032	0.9	1.8	88 a-c	8.4	20 b-e	4 a-c	3.9	3.8	5.1	50 cd	62 c-g	0.14 d-f	2748 a	342 a-d
N16034	1.2	0.7	88 a-c	7.5	30 ab	7 a-c	5.3	1.7	3.0	58 ab	68 a-c	0.16 a-c	2499 ab	398 a-c
N16035	1.0	1.8	91 a	7.7	24 a-e	6 a-c	3.9	2.2	2.5	50 cd	59 fg	0.14 d-f	2696 ab	357 a-d
N16055	1.4	2.1	89 ab	8.7	19 b-e	2 a-c	3.6	3.0	2.6	50 cd	59 e-g	0.14 d-f	2922 a	393 a-c
N17033	2.0	2.1	76 e	7.7	24 a-e	3 a-c	3.7	2.4	3.0	55 bc	64 b-f	0.15 c-e	2183 ab	320 a-d
N17034	1.7	1.4	82 cd	8.4	27 a-c	5 a-c	4.2	2.2	3.6	56 a-c	66 b-d	0.15 b-d	2001 ab	296 b-d
N17045	0.8	0.8	86 a-c	8.4	35 a	7 ab	4.6	1.5	1.7	61 ab	69 ab	0.17 ab	3006 a	507 a
N17047	1.1	1.3	85 a-c	7.8	27 a-d	8 a	4.5	1.9	3.2	56 a-c	65 b-e	0.15 b-d	2907 a	434 a-c
Mean	1.7	1.8	81	8.0	22	4	4.4	2.6	2.9	53	63	0.15	2478	359
LSD	-	-	6	-	12	6	-	-	-	6	6	0.02	1309	192

¹All yields are net, adjusted to 7% standard moisture and foreign material is deducted.

²Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's LSD test.

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