2013

Peanut Variety and Quality Evaluation Results

Agronomic and Grade Data

Tidewater Agricultural Research and Extension Center

Virginia Agricultural Experiment Station

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Virginia Cooperative Extension

Virginia Tech
Virginia State University

PEANUT VARIETY AND QUALITY EVALUATION RESULTS 2013

I. Agronomic and Grade Data

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ABBREVIATIONS

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

% Foreign Material (%FM), 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 ride the 34/64 inch spacing set on the pre-sizer.

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

% Sound Splits (%SS), 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.

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

% Other Kernels (%OK), 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.

% Sound Mature Kernels (%SMK), 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.

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

Support Price ($/cwt), price based on a standard loan price ($358.38 per ton for Virginia-type and $354.74 per ton for runner-type peanut) taking the various grade factors into consideration.

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:

Value = (Yield * Price)

Support Price ($/cwt), crop price computed by the following formulas:

Virginia-type = (((SMK + SS) * 4.942) + (OK * 1.4))/2000 + ((ELK * 0.35)/2000)

Runner-type = ((((SMK + SS) * 4.845) + (OK * 1.4))/2000)

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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 Project (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 2013.

PLANT MATERIAL AND TEST LOCATIONS

In 2013, PVQE included 36 genotypes: 10 commercial varieties and 26 advanced breeding lines developed by the North Carolina State University peanut breeding program (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 Georgia 09B, Florida 07, Spain and the 2013 releases, Sullivan and Wynne. Genotypes were planted from May 4 through 16 at five locations: at 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 6 × 6 lattice design (Table 2). 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 were planted. At the Edisto Research and Education Center, some cultivars used for tests in VA and NC were replaced with cultivars better suited for SC peanut growing area. At this location, varieties were replicated four times in a randomized complete block design. Cultivars were compared with the breeding lines for yield and grading characteristics as the ultimate objective is development of new Virginia-type peanut cultivars. **Even though all varieties were graded as Virginia-type peanut, separate formulas for crop value were used for the two market types as indicated on page iv.**

Plant Material and Test Locations

PLANT MATERIAL AND TEST LOCATIONS

Table 1. Names and pedigree of the genotypes (advanced breeding lines and commercial varieties) evaluated in 2013.

Genotype Number	Variety or Line	Pedigree
1	Gregory	NC 7 / NC 9
2	CHAMPS	VA 8911215 / VA-C 92R
3	Phillips	N90014E / N91024
4	Bailey	NC 12C*2 / N96076L
5	Sugg	Gregory // X98006 (F1)
6	Georgia 09B	
7	Florida 07	
8	Sullivan (N08075olCT)	N03079FT / X03034 (F01)
9	Wynne (N08081olJC)	Bailey / X03036 (F01)
10	N08082olJCT	Bailey / X03036 (F01)
11	Spain	
12	N09037ol	N03079FT*2 / Brantley
13	N09039olF	N03079FT / X03032 (F01)
14	N09042olF	N03079FT / X03032 (F01)
15	N10043olJ	N02006 / X03024 (F01)
16	N10046ol	N03079FT / X03031 (F01)
17	N10047ol	N03079FT / X03031 (F01)
18	N10051ol	N03079FT / N02059ol (Per)
19	N10053ol	Bailey / X03036 (F01)
20	N10061olFCLSm	N03073FT / X05016 (F01)
21	N10066olSmT	N03076FT / X05019 (F01)
22	N10070olCLSmT	N03076FT / X05019 (F01)
23	N10078olJC	N03088T / X05030 (F01)
24	N10080olJCL	N03088T / X05030 (F01)
25	N10082olJC	N03088T / X05030 (F01)
26	N11019olJ	N03090T / X05032 (F01)
27	N11020olJ	X03146 (BC1F1-01-03-01: F04) / N03084FT
28	N11024ol	X03146 (BC1F1-01-03-01: F04) / Sugg
29	N11028ol	X03151 (BC1F1-05-02-S-04: F05) / Sugg
30	N11034ol	X03151 (BC1F1-05-02-S-04: F05) / Sugg
31	N11039olFSr	X03151 (BC1F1-05-02-S-04: F05) / Sugg
32	N11048ol	X03153 (BC1F1-04-01-S-01: F05) / N03078FT
33	N11051olJ	X03153 (BC1F1-04-01-S-01: F05) / N03084FT
34	SPT 10-05ol	NC 12C/GP-NC WS 15//Brantley
35	SPT 10-12ol	NC 12C/GP-NC WS 13//Sun-Oleic 97R
36	SPT 10-14ol	04 L LAU 003 / Brantley

Plant Material and Test Locations

Table 2. Planting, digging and combining dates for each test location in 2013. Dig I was considered an early digging, and Dig II and optimum digging time for peanut in V-C area.

	Planting Date		Digging Date		Combining Date	
Locations	**I**	**II**	**I**	**II**	**I**	**II**
Tidewater AREC, VA	May 4	May 4	Sept. 18	Sept. 30	Sept. 24	Oct. 4
Martin Co., NC	May 16	May 16	Sept. 19	Oct. 1	Sept. 25	Oct. 18
Rocky Mount, NC	May 10		Sept. 26		Oct. 2	
Bladen Co., NC	May 14		Sept. 23		Oct. 1	
Blackville, SC	May 11		Sept. 27		Oct. 3	

Weather Conditions

WEATHER CONDITIONS

The 2013 growing season was cool and humid at all locations. Weather information is provided in Tables 3 through 7.

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), average and maximum radiation (RAD), air relative humidity (RH), and precipitation at Tidewater AREC, Suffolk VA, in 2013 peanut growing season. These data are provided by the Peanut/Cotton InfoNet of Tidewater AREC from 1 May to 31 October.

Month	AVG Tair	Max Tair	Min Tair	AVG Tsoil	Heat units DD56	AVG RAD[1]	Max RAD[1]	RH	Rain
		°F			°F d		Wm^{-2}	%	inch
May	66	78	56	67	146	230	758	76	3.6
June	75	86	66	77	647	234	763	81	8.1
July	79	90	70	81	1306	229	773	84	3.5
August	75	86	65	78	1954	196	695	84	6.5
September	68	82	56	73	2473	193	714	82	2.0
October	69	83	58	69	2690	155	579	82	2.8
Mean/Sum	**72**	**84**	**62**	**74**	**2690**	**206**	**714**	**82**	**26.4**

[1] Light is important for peanut growth and development. On a fully sunny day, maximum RAD approaches 1366 watts/m^2 and average RAD (average from sunrise to sunset) is approximately 250 watts/m^2. If these numbers are less, it denotes cloudy days, on which plants grow less.

Weather Conditions

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 2013 peanut growing season. These data are provided by the State Climate Office of NC from 1 May to 31 October.

Month	AVG Tair	Max Tair	Min Tair	AVG Tsoil	Heat units DD56	AVG PAR	Max PAR	RH	Rain
		°F			°F d	µmol m^{-2} s^{-1}	µmol m^{-2} s^{-1}	%	inch
May	67	78	57	68	355	428	2194	67	2.0
June	75	85	67	77	960	446	2298	75	13.1
July	79	87	72	82	1688	456	2374	77	0.2
August	75	85	67	79	2312	433	2220	77	6.5
September	69	81	60	75	2735	323	1868	75	0.8
October	72	85	61	72	2856	371	1664	73	0.1
Mean/Sum	**73**	**83**	**64**	**75**	**2856**	**409**	**2103**	**74**	**22.6**

[1] Light is important for peanut growth and development. On a fully sunny day, maximum PAR approaches 2500 µmol m^{-2} s^{-1} and average PAR (average from sunrise to sunset) is approximately 600µmol m^{-2} 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 2013 peanut growing season. These data are provided by the State Climate Office of NC from 1 May to 31 October.

Month	AVG Tair	Max Tair	Min Tair	AVG Tsoil	Heat units DD56	AVG PAR	RH	Rain
		°F			°F d	µmol m^{-2} s^{-1}	%	inch
May	68	78	57	69	374	410	68	2.9
June	76	85	68	78	1013	446	75	10.0
July	79	88	72	84	1778	506	79	4.9
August	76	86	67	81	2439	461	78	4.5
September	70	82	59	76	2898	429	75	4.8
October	68	81	59	71	3025	291	78	0.3
Mean/Sum	**73**	**83**	**64**	**76**	**3025**	**424**	**75**	**27.4**

[1] Light is important for peanut growth and development. On a fully sunny day, maximum PAR approaches 2500 µmol m^{-2} s^{-1} and average PAR (average from sunrise to sunset) is approximately 600µmol m^{-2} 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), air relative humidity (RH), and precipitation at Bladen County, NC, in 2013 peanut growing season. These data are provided by the State Climate Office of NC from 1 May to 31 October.

Month	AVG Tair	Max Tair	Min Tair	Heat units DD56	RH	Rain
		°F		°F d	%	inch
May	69	81	56	401	70	2.9
June	77	87	68	1040	80	12.4
July	79	88	71	1776	81	10.0
August	77	88	69	2474	80	4.9
September	72	85	61	2984	77	1.6
October	72	86	59	3098	78	0.0
Mean/Sum	**74**	**86**	**64**	**3098**	**78**	**31.8**

Weather Conditions

Table 7. Temperature of air, peanut heat units (degree day – DD56) calculated based on a 56 °F temperature base (T_b), air relative humidity (RH), and precipitation at Edisto Research and Education Center in Blackville, SC, in 2013 peanut growing season. These data are provided by the State Climate Office of NC from 1 May to 31 October.

Month	AVG Tair	Max Tair	Min Tair	Heat units DD56	RH	Rain
		°F		°F d	%	inch
May	70	81	58	412	70	1.6
June	77	88	70	1069	80	5.7
July	78	87	72	1771	86	6.9
August	78	87	70	2430	81	6.5
September	74	85	65	2957	76	1.1
October	65	77	55	3069	76	0.3
Mean/Sum	**74**	**84**	**65**	**3069**	**78**	**22.0**

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 8 through 11 show planting dates, soil type, pH and mineral content, and cultural practices applied to the crops at each location.

Cultural Practices

Table 8. Cultural practices at Tidewater AREC (Suffolk), VA, for Digs I and II in 2013.

Planting Date:	May 4, 2013		
Harvest Date:	Dig 1 – September 18, 2013; Dig II – September 24, 2013		
Soil Type:	Dragston, Emporia, Uchee		
Soil Test Results:			

	ppm					
pH	P	K	Ca	Mg	Zn	Mn
6.18	18	46	167	16	0.3	1.2

Cultivation:	Strip Till		
Soil Fumigant:	4/18/13	-	Metam 7.5 gals/A
Landplaster:	6/25/13	-	US 420 Gypsum 1400 lbs/A
Herbicides:	4/18/13	-	Prowl 1 pt/A; Dual 1 pt/A
	5/10/13	-	Round-up Weather Max 22 oz/A; Intrro 1 qt/A
	6/26/13	-	Select Max 12 oz/A
	6/27/13	-	Storm 1.5 pt/A; Basagran 1 pt/A
	7/8/13	-	Intrro 1 qt/A
	7/21/13	-	Select Max 1 pt/A
	9/3/13	-	Volunteer (Select) 1 pt/A
Insecticides:	5/4/13	-	Orthene 12 oz/A (in furrow)
	5/17/13	-	Orthene 8 oz/A
	6/14/13	-	Orthene 8 oz/A
	6/21/13	-	Admire Pro 5 oz/A; Danitol 8 oz/A
	7/16/13	-	Asana 6 oz/A
	8/8/13	-	Asana 6 oz/A
	8/21/13	-	Baythroid 2 oz/A
Fertility:	5/4/13	-	Optimize Lift 16 oz/A
	6/21/13	-	Manganese 1 qt/A
	7/16/13	-	Manganese Sulfate 3 lbs/A
	7/20/13	-	Boron 1 qt/A
	7/26/13	-	Sulfur 3 qts/A
	7/29/13	-	ENC 1 qt/A
Fungicides:	5/4/13	-	Proline 5.7 oz/A
	7/20/13	-	Headline 8 oz/A
	8/8/13	-	Provost 10 oz/A
	8/21/13	-	Provost 10 oz/A
	8/27/13	-	Omega 1 pt/A

Cultural Practices

Table 9. Cultural practices at Martin Co., NC, for Digs I and II, in 2013.

Planting Date:	May 16, 2013		
Harvest Date:	Dig I - September 19, 2013; Dig II – September 25, 2013		
Soil Type:	Norfolk loamy fine sand		
Cultivation:	Deep Disc/bedded		
Soil Fumigant:	None		
Landplaster:	7/22/13	-	US 420 Gypsum 1300 lbs/A
Herbicides:	5/16/13	-	Prowl 1.25 pt/A; Dual 1.25 pt/A
	7/16/13	-	Storm 1.5 pt/A; Basagran 1 pt/A
	7/31/13	-	Intrro 1 qt/A
	8/29/13	-	Select 1 pt/A
Insecticides:	5/16/13	-	Orthene 12 oz/A (in furrow)
	6/4/13	-	Orthene 8 oz/A
	7/26/13	-	Asana 6 oz/A
	8/20/13	-	Baythroid 2 oz/A
Fertility:	5/16/13	-	Optimize Lift 16 oz/A
	6/4/13	-	Boron 1 qt/A
	7/26/13	-	Sulfur 1 qt/A
	7/31/13	-	Manganese 1 qt/A
Fungicides:	5/16/13	-	Proline 5.7 oz/A
	7/26/13	-	Headline 8 oz/A
	8/20/13	-	Provost 10 oz/A
	8/29/13	-	Omega 1 pt/A

Cultural Practices

Table. 10 Cultural practices at Rocky Mount, NC in 2013.

Planting Date:	May 10, 2013		
Harvest Date:	October 3, 2013		
Soil Type:	Aycock very fine sandy loam		
Cultivation:	Conventional Till		
Soil Fumigant:	None		
Landplaster:	7/11/13	-	US 420 Gypsum1300 lbs/A
Herbicides:	5/2/13	-	Intrro 2 qt/A
	5/10/13	-	Dual Magnum 1 pt/A
	6/21/13	-	Basagran 24 oz/A; Butyrac 10 oz/a; Cobra 12.5 oz/A
	7/10/13	-	Arrow 16 oz/A; Surfactant 1%
Insecticides:	5/10/13	-	Orthene 12 oz/A (in furrow)
	6/6/13	-	Ortehene 97 1 lb/A
	7/10/13	-	Danitol 12 oz/A
	7/19/13	-	Lorsban 15G 14 lbs/A
	8/7/13	-	Karate Zeon 1.90 oz/A
	8/13/13	-	Steward 10.5 oz/A
Fertility:	5/10/13	-	Optimize Lift 16 oz/A
	7/19/13	-	Boron 2.5 lbs/A
	7/26/13	-	Manganese 2 lbs/A
Fungicides:	5/10/13	-	Proline 5.7 oz/A
	7/19/13	-	Bravo WS 2 pt/A
	7/26/13	-	Danitol 10 oz/A
	8/7/13	-	Provost 8 oz/A
	8/21/13	-	Folicur 7.2 oz/A
	8/22/13	-	Omega 500 1.5 pt/A
	9/6/13	-	Bravo 2 pt/A

Cultural Practices

Table 11. Cultural practices at Bladen County, NC in 2013.

Planting Date:	May 14, 2013
Harvest Date:	October 1, 2013
Soil Type:	Goldsboro sandy loam
Cultivation:	Conventional Till
Soil Fumigant:	None
Landplaster:	US 420 Gypsum 2200 lbs/A
Herbicides:	Touchdown 24 oz/A Basagran 1 pt/A Dual Magnum 1 ¼ pt/A Cadre 4 oz/A Cropoil 1 qt/A Butyrac 1 pt/A
Insecticides:	Acephate 4 oz/A Lorsban 13 lbs/A Mustang Max 2 oz/A Dimilin 4 oz/A
Fertility:	12-0-0-26 1 qt/A Manganese 0.125 lb/A Manganese (8%) 1 qt/A Boron 10% 1 pt/A
Fungicides:	Tilt Bravo 1 ½ pt/A Abound 18 oz/A Folicur (Tebu) 7.2 oz/A Bravo ½ pt/A Headline 7.2 oz/A Bravo 1 pt/A Folicur 7.2 oz/A Bravo 1 pt/A
Growth Regulators:	Apogee 7.2 oz/A Bifen 3 ½ oz/A

Cultural Practices

Table 12. Cultural practices at Blackville, SC in 2013.

Planting Date:	May 11, 2013		
Harvest Date:	October 3, 2013		
Soil Type:	Barnwell loamy sand		
Cultivation:	Conventional Till		
Soil Fumigant:	None		
Landplaster:	6/10/13	-	US 420 Gypsum 1800 lbs
Herbicides:	5/14/13	-	Valor (3 oz/A); Prowl H2O (1 qt/A)
	6/25/13	-	Cadre (4 oz); 2,4 DB (1 pt)
Insecticides:	5/11/13	-	Thimet 20G (5 lbs. in furrow)
Fungicides:	6/10/13	-	Bravo WS (1.5 pt)
	7/20/13	-	Bravo WS (1.5 pt)
	8/8/13	-	Bravo WS (1.5 pt); Tilt (2 oz)

2013 Results by Location

RESULTS

Seedcoat color and maturity rating are presented in Table 13. This year, disease incidence was evaluated only at Blackville (Table 14). 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 15 to 26 and figures 1 through 24 for individual locations and all locations combined. Two- and three-year averages are presented in Tables 27-33.

In general 2013 was a good year for peanut production but chalenging throughout the summer because of frequent and havy rainfalls. We managed to plant, maintain, and dig in a timely fashion mennar. With the exception of Blackville test, which was designed to receive minimal insect and disease control to capture disease information on the varieties, at the other locations the PVQE tests were clean of diseases. At Suffolk, manganese defficency simptoms were obvious before manganese applications were made and, for some varieties more than for others, they persisted longer even after a second manganese application (pictures below). Harvest was most problematic for some locations because of frequent rainfalls in Oct. For example, this year yields and grading factors of the second digging date test at Martin were substantially reduced by 18 rainy days spent on the grown by inverted peanuts.

RESULTS – SEEDCOAT COLOR AND MATURITY

Table 13. Seedcoat color and maturity rating of the peanut entries averaged for all locations in 2013.

Variety or Line	Seedcoat[1] Color	Maturity Rating[2] ELK	Maturity Rating[2] Medium
Gregory	P	1	2
CHAMPS	P,LP	1	2
Phillips	T,LT	1	2
Bailey	T,LT	1	2
Sugg	P,LP	1	2
Georgia 09B	T	1	2
Florida 07	LT	1	2
Sullivan	LT	1	2
Wynne	LP	1	2
N08082olJCT	LP	1	2
Spain	P	2	3
N09037ol	LP	1	2
N09039olF	LP	1	2
N09042olF	LT	1	2
N10043olJ	LP	1	2
N10046ol	LP	1	2
N10047ol	LP	1	2
N10051ol	LP	1	2
N10053ol	LP	1	2
N10061olFCLSm	LP	1	2
N10066olSmT	LP	1	2
N10070olCLSmT	LP	1	2
N10078olJC	P	1	2
N10080olJCL	P	1	2
N10082olJC	P	1	2
N11019olJ	P	1	2
N11020olJ	LP	1	2.25
N11024ol	P	1	2.50
N11028ol	P,LP	1	2
N11034ol	LP	1	2
N11039olFSr	P	1	2
N11048ol	P,LP	1	2
N11051olJ	P	1	2
SPT 10-05	LP	1	2
SPT 10-12ol	LP	1	2
SPT 10-14ol	P,LP	1	2

[1] T = tan, LP = light pink, P = pink, and LT = Light Tan

[2] Maturity rating (lower number indicates more mature seed) based on the degree of shriveling of the seedcoat with 1 = completely smooth 2 = somewhat smooth 3 = slightly shriveled 4 = somewhat shriveled and 5 = completely shriveled.

2013 Results by Location

RESULTS – DISEASE

Table 14. Disease incidence at Blackville, SC, in 2013.

Description Rating Date Rating Type Rating Unit		Early Leafspot 2013/Sep/23 LefspRating 1-10	Rhizoctonia 2013/Sep/27 %	White Mold 2013/Sep/27 %	CBR 2013/Sep/27 %	TSWV 2013/Aug/26 %
Trt No.	Variety Name					
1	N10047ol	5.50 b-e	6.3 bcd	1.1 a	0.0 c	5.4 a
2	N10078olJC	5.25 c-h	8.8 a-d	0.5 a	1.1 bc	5.4 a
3	N11024ol	5.13 d-i	3.8 d	0.0 a	0.0 c	7.1 a
4	N10046ol	5.69 a-d	7.5 a-d	1.1 a	0.5 bc	4.9 a
5	N10070olCLSmT	5.25 c-h	3.8 d	1.1 a	0.0 c	10.9 a
6	N10053ol	6.25 a	12.5 ab	2.2 a	1.1 b	6.0 a
7	N10082olJC	5.69 a-d	10.0 a-d	0.7 a	1.4 bc	7.1 a
8	N11020olJ	5.88 abc	6.3 bcd	10.3 a	0.0 c	9.2 a
9	N10080olJCL	6.00 ab	13.3 a	1.4 a	4.3 a	11.4 a
10	N08081olJC	5.44 b-f	3.8 d	0.5 a	0.0 c	6.0 a
11	N08082olJCT	5.13 d-i	5.0 cd	1.4 a	0.7 bc	5.4 a
12	N11039olFSr	4.56 hi	5.0 cd	0.0 a	0.0 c	1.6 a
13	SPT-10-14ol	5.50 b-e	3.8 d	2.2 a	0.0 c	4.3 a
14	N10066olSmT	5.06 d-i	10.0 a-d	4.9 a	2.2 b	7.6 a
15	N1102801	5.50 b-e	10.0 a-d	6.5 a	0.0 c	4.3 a
16	N09042olF	5.63 a-e	3.8 d	1.6 a	0.5 bc	3.8 a
17	SPT-10-1201	4.50 i	12.5 ab	1.1 a	0.5 bc	1.6 a
18	N11034ol	5.44 b-f	3.8 d	1.6 a	0.0 c	2.2 a
19	N11048ol	5.88 abc	3.8 d	2.2 a	0.0 c	6.5 a
20	N11051olJ	5.38 b-g	5.0 cd	2.7 a	0.0 c	2.7 a
21	N11019olJ	5.56 a-e	7.5 a-d	3.3 a	0.0 c	7.1 a
22	N10051ol	5.13 d-i	3.8 d	0.0 a	0.0 c	2.2 a
23	N10043olJ	5.63 a-e	11.3 abc	1.6 a	0.0 c	4.3 a
24	N09037ol	5.50 b-e	6.3 bcd	0.0 a	0.0 c	6.0 a
25	N0807501olCT	4.75 f-i	6.3 bcd	2.2 a	0.0 c	6.0 a
26	N09039olF	5.13 d-i	3.8 d	2.7 a	0.0 c	2.2 a
27	N1006olFCLSm	5.13 d-i	6.3 bcd	0.5 a	0.0 c	8.2 a
28	SPT-10-05ol	4.94 e-i	5.0 cd	3.8 a	0.0 c	7.1 a
29	Ga 06G	5.25 c-h	10.0 a-d	4.3 a	0.0 c	2.7 a
30	Ga 11J	5.13 d-i	6.3 bcd	0.0 a	0.0 c	2.7 a
31	Ga 07 W	4.94 e-i	6.3 bcd	2.7 a	0.0 c	2.7 a
32	Bailey	5.56 a-e	6.3 bcd	1.6 a	0.5 bc	3.8 a
33	NC-V 11	5.31 b-g	13.8 a	3.3 a	0.0 c	8.7 a
34	Ga 12Y	5.50 b-e	7.5 a-d	1.6 a	0.0 c	2.2 a
35	TufRunner	4.69 ghi	6.3 bcd	2.2 a	0.0 c	6.5 a
LSD (P=.05)		0.690	6.41	9.18t	4.22t	9.49t
Standard Deviation		0.493	4.58	6.56t	3.02t	6.78t
CV		9.24	65.51	128.53	287.44	59.19
Replicate F		4.709	1.758	3.398	0.259	2.560
Replicate Prob(F)		0.0041	0.1602	0.0208	0.8549	0.0591
Treatment F		2.551	1.797	1.059	1.892	1.208
Treatment Prob(F)		0.0002	0.0134	0.4016	0.0080	0.2325

Planted 11 May; inverted 27 Sept (139 DAP).
Means followed by same letter do not significantly differ (P=.05, LSD)
t= Data transformed prior to analysis, but original means are reported.

2013 Results by Location

RESULTS – PODS

Table 15. Average percent of jumbo pods[1] based on farmers' grade at all locations in 2013.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II				
Gregory	86 ab	83 ab	74 a-c	79 ab	79 a-c	82 a-c	--	80 a
CHAMPS	53 g-i	40 l-o	45 h-j	42 m-o	42 j-l	49 k-m	--	45 ij
Phillips	62 e-g	54 h-j	43 i-k	49 j-m	38 j-m	50 j-l	--	49 g-i
Bailey	39 k-m	36 m-o	33 k-m	40 m-o	26 n	40 mn	12 m-q	30 k-m
Sugg	33 m	43 k-m	30 lm	36 o	35 k-n	46 l-n	--	37 jk
Georgia 09B	8 no	13 p	6 op	8 st	5 op	8 rs	--	8 op
Florida 07	4 o	3 q	2 p	5 t	3 p	6 s	--	4 p
Sullivan	56 e-h	47 i-l	47 h-j	41 m-o	54 hi	61 hi	24 h-l	44 ij
Wynne	81 a-c	74 b-d	72 a-e	68 c-f	73 b-d	74 c-f	52 ab	68 bc
N08082olJCT	81 a-c	76 bc	67 b-e	69 b-e	79 a-c	79 a-d	46bc	68 cd
Spain	81 a-c	75 b-d	73 a-d	79 ab	75 b-d	87 a	--	78 a
N09037ol	83 a-c	72 c-e	63 d-g	71 a-d	68 c-e	67 f-h	37 c-f	62 c-e
N09039olF	43 i-l	44 j-m	23 mn	39 m-o	40 j-m	48 k-m	7 q	31 kl
N09042olF	33 lm	33 no	14 no	20 qr	32 l-n	29 op	7 pq	22 mn
N10043olJ	90 a	87 a	76 ab	82 a	87 a	86 a	58 a	78 a
N10046ol	75 cd	66 d-f	66 b-f	62 d-i	71 cd	78 a-d	36 d-g	61 c-e
N10047ol	77 bc	67 c-f	64 c-g	64 d-h	71 cd	72 d-g	32 e-h	60 d-f
N10051ol	66 de	75 b-d	55 gh	57 g-k	57 e-h	62 g-i	21 j-m	52 f-i
N10053ol	55 f-h	53 h-j	51 hi	57 f-k	44 i-k	59 h-j	19 k-n	44 ij
N10061olFCLSm	50 h-j	40 l-o	39 j-l	48 k-n	41 j-m	37 no	11 n-q	34 k
N10066olSmT	62 e-g	53 h-j	50 hi	53 i-l	48 h-j	63 g-i	18 k-n	46 i
N10070olCLSmT	53 g-i	60 f-h	55 gh	62 d-i	56 gh	57 i-k	17 l-o	47 i
N10078olJC	43 i-m	52 h-k	46 h-j	41 m-o	56 gh	67 f-h	22 h-l	43 ij
N10080olJCL	47 h-k	64 e-g	45 h-j	43 l-o	57 f-h	67 f-h	22 i-l	46 i
N10082olJC	73 cd	66 c-f	54 g-i	53 j-l	68 d-f	79 a-d	27 g-k	56 e-h
N11019olJ	80 a-c	72 c-e	67 b-e	67 d-g	74 b-d	76 b-f	31 e-i	62 c-e
N11020olJ	87 ab	83 ab	82 a	78 a-c	84 ab	85 ab	56 a	76 ab
N11024ol	78 bc	67 c-f	62 e-g	60 e-j	59 e-h	77 a-e	29 f-j	57 e-g
N11028ol	65 d-f	55 g-i	47 h-j	54 h-k	59 e-h	68 e-h	16 l-p	47 hi
N11034ol	36 lm	31 o	23 mn	24 pq	26 n	29 op	8 o-q	23 lm
N11039olFSr	41 j-m	45 j-m	24 mn	35 op	38 j-m	40 mn	15 l-q	31 kl
N11048ol	73 cd	60 f-h	56 f-h	67 d-g	66 d-g	77 a-e	40 c-e	60 c-f
N11051olJ	77 bc	68 c-f	55 gh	62 d-i	73 b-d	74 c-f	43 b-d	63 c-e
SPT 10-05	41 j-m	41 l-n	39 j-l	38 no	30 mn	42 l-n	21 j-m	34 k
SPT 10-12ol	11 no	16 p	6 op	11 r-t	8 op	17 qr	8 o-q	10 op
SPT 10-14ol	17 n	19 p	10 op	19 q-s	15 o	21 pq	5 q	14 no
Mean	**56**	**53**	**46**	**49**	**51**	**57**	**25**	**46**
LSD $_{0.05}$[3]	**10**	**10**	**11**	**11**	**11**	**10**	**10**	**8**

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

2013 Results by Location

Table 16. Average percent of fancy pods[1] based on farmers' grade at all locations in 2013.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II				
Gregory	12 no	13 pq	19 o-q	15 lm	13 kl	12 q-s	--	14 n
CHAMPS	39 f-h	45 a-f	42 d-i	46 a-d	44 a-e	40 d-f	--	42 c-g
Phillips	31 h-j	37 f-i	45 b-f	40 d-g	48 ab	36 e-g	--	39 e-h
Bailey	47 b-e	49 a-d	50 a-d	44 b-e	54 a	44 b-d	58 a-c	50 ab
Sugg	57 a	46 a-e	53 a-c	46 a-d	49 ab	45 a-d	--	49 ab
Georgia 09B	53 ab	49 a-c	41 d-i	48 a-d	46 ab	42 b-e	--	46 a-d
Florida 07	17 l-o	20 n-p	17 pq	22 j-m	17 j-l	23 j-o	--	19 mn
Sullivan	40 d-g	41 c-g	37 e-k	40 c-g	33 c-g	30 g-j	55 a-e	41 d-g
Wynne	16 l-o	21 l-p	23 n-q	22 j-m	20 i-l	18 m-q	36 i	24 lm
N08082olJCT	16 l-o	18 n-q	25 m-p	25 h-l	15 kl	17 o-r	37 hi	24 lm
Spain	16 m-o	18 n-q	20 o-q	15 lm	15 j-l	10 rs	--	15 n
N09037ol	14 no	20 m-p	26 m-p	23 i-m	23 g-k	24 i-m	47 d-g	28 j-l
N09039olF	45 b-f	40 d-h	56 a	48 a-d	46 ab	40 c-f	49 c-f	47 a-d
N09042olF	47 b-e	47 a-e	53 ab	54 ab	47 ab	47 a-d	35 i	45 a-e
N10043olJ	9 o	10 q	17 pq	14 m	10 l	9 s	32 i	16 n
N10046ol	23 k-m	24 k-n	25 m-p	28 h-j	22 g-l	17 n-q	46 e-h	29 j-l
N10047ol	19 l-n	22 l-o	26 m-p	26 h-k	22 g-l	21 l-o	52 b-f	30 j-l
N10051ol	28 jk	21 l-p	31 j-n	35 e-h	37 b-f	28 h-k	58 a-c	37 g-i
N10053ol	37 g-i	39 e-h	39 e-j	35 e-h	44 a-d	34 f-h	62 a	44 b-f
N10061olFCLSm	40 e-g	43 b-f	47 a-e	41 c-f	49 ab	51 a	58 a-c	48 a-c
N10066olSmT	29 i-k	38 e-h	36 f-l	35 e-h	44 a-e	31 g-i	59 ab	41 d-g
N10070olCLSmT	37 f-i	29 i-m	34 g-l	30 g-j	33 c-g	34 f-h	58 a-c	39 e-h
N10078olJC	48 b-d	39 e-h	42 d-i	46 a-d	32 e-i	22 k-o	56 a-d	42 c-g
N10080olJCL	44 c-g	29 i-l	43 c-h	47 a-d	33 d-g	26 i-l	51 b-f	40 d-g
N10082olJC	24 j-m	26 j-n	34 h-l	39 d-g	24 g-k	16 o-s	53 b-f	33 h-j
N11019olJ	17 l-o	24 j-n	26 l-p	26 h-k	20 h-l	19 l-p	53 b-f	30 j-l
N11020olJ	12 no	14 o-q	15 q	16 k-m	13 kl	13 p-s	32 i	18 mn
N11024ol	18 l-n	26 j-n	26 m-p	32 f-i	32 d-h	18 m-q	58 a-c	33 h-j
N11028ol	28 jk	32 h-k	38 e-j	34 f-h	31 f-i	24 i-n	58 a-c	38 f-h
N11034ol	50 a-c	52 ab	55 a	56 a	55 a	49 ab	47 d-g	51 a
N11039olFSr	48 b-e	43 c-f	56 a	50 a-c	44 a-d	47 a-c	53 a-f	49 ab
N11048ol	24 j-l	33 g-j	32 i-n	26 h-k	27 f-j	18 m-q	45 f-h	31 i-k
N11051olJ	19 l-n	25 j-n	28 k-o	26 h-k	18 j-l	18 m-q	40 g-i	26 kl
SPT 10-05	50 a-c	54 a	47 a-e	48 a-d	52 a	49 ab	51 b-f	50 ab
SPT 10-12ol	49 a-c	52 a	38 e-k	46 a-d	46 ab	45 a-d	39 g-i	44 b-f
SPT 10-14ol	49 a-c	41 c-g	44 b-g	42 c-f	45 a-c	41 c-f	32 i	41 d-g
Mean	**32**	**33**	**35**	**35**	**33**	**29**	**49**	**36**
LSD $_{0.05}$[3]	**8**	**9**	**10**	**10**	**12**	**7**	**9**	**6**

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

2013 Results by Location

Table 17. Average of pod brightness[1] (Hunter L Score) for jumbo pods in 2013.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II				
Gregory	41.48 d-h	45.39 ab	45.35 ab	33.06 d-k	47.93 ab	45.99 a	--	43.20 ab
CHAMPS	44.81 a-d	45.81 ab	44.92 ab	36.19 ab	47.69 ab	45.37 ab	--	44.13 ab
Phillips	43.23 b-g	46.97 ab	44.39 ab	35.63 a-d	47.37 ab	45.03 ab	--	43.77 ab
Bailey	47.79 a	46.57 ab	46.10 ab	34.92 a-e	46.95 ab	46.00 a	45.16 a-d	44.83 a
Sugg	45.92 a-c	44.96 ab	43.47 a-c	33.67 b-h	46.02 ab	45.14 ab	--	43.19 ab
Georgia 09B	41.72 d-h	43.46 ab	38.37 c	32.84 e-k	38.17 c	41.80 bc	--	39.39 cd
Florida 07	32.75 i	29.72 c	28.88 d	30.86 i-k	36.31 c	39.02 c	--	32.92 e
Sullivan	46.46 ab	45.39 ab	47.30 a	34.10 a-g	45.86 ab	45.63 a	43.10 d-h	43.87 ab
Wynne	44.37 a-f	45.37 ab	44.90 ab	33.06 d-k	46.34 ab	47.09 a	44.51 a-f	43.77 ab
N08082olJCT	44.37 a-f	45.75 ab	44.84 ab	34.16 a-g	47.24 ab	46.32 a	46.08 ab	44.36 ab
Spain	39.15 h	39.33 b	40.51 bc	30.50 k	44.86 ab	39.25 c	--	38.93 d
N09037ol	47.16 ab	45.55 ab	44.93 ab	33.57 b-h	46.98 ab	47.27 a	46.33 ab	44.76 a
N09039olF	43.33 b-g	45.01 ab	46.37 a	34.27 a-g	47.43 ab	46.13 a	41.92 g-j	43.30 ab
N09042olF	46.14 a-c	46.05 ab	45.86 ab	36.38 a	45.41 ab	46.38 a	41.97 g-j	43.77 ab
N10043olJ	41.55 d-h	44.66 ab	45.40 ab	30.70 jk	45.82 ab	45.32 ab	44.89 a-e	42.90 ab
N10046ol	43.58 b-g	46.85 ab	43.11 a-c	31.78 g-k	46.79 ab	47.28 a	45.82 a-c	43.88 ab
N10047ol	44.43 a-e	29.68 c	44.87 ab	33.03 d-k	48.23 a	47.24 a	46.46 a	42.55 a-c
N10051ol	42.37 c-h	44.66 ab	44.41 ab	34.17 a-g	46.79 ab	44.96 ab	43.31 d-h	43.00 ab
N10053ol	44.19 a-g	44.69 ab	45.66 ab	33.58 b-h	46.48 ab	44.50 ab	45.33 a-d	43.72 ab
N10061olFCLSm	44.09 a-g	46.90 ab	44.49 ab	33.73 b-g	46.08 ab	45.33 ab	42.51 f-i	43.20 ab
N10066olSmT	43.39 b-g	46.69 ab	45.00 ab	31.81 g-k	46.05 ab	46.86 a	43.21 d-h	43.28 ab
N10070olCLSmT	45.67 a-c	46.30 ab	43.79 a-c	32.95 e-k	46.11 ab	45.54 a	44.37 a-f	43.64 ab
N10078olJC	45.94 a-c	47.02 ab	44.85 ab	34.75 a-f	46.55 ab	44.70 ab	44.91 a-e	44.20 ab
N10080olJCL	45.69 a-c	47.22 ab	43.94 a-c	33.34 c-i	45.76 ab	45.63 a	43.54 c-h	43.58 ab
N10082olJC	45.93 a-c	44.82 ab	44.62 ab	33.85 a-g	46.75 ab	45.42 ab	44.35 a-f	43.76 ab
N11019olJ	41.63 d-h	43.81 ab	44.03 a-c	32.89 e-k	46.94 ab	45.16 ab	44.56 a-f	42.95 ab
N11020olJ	45.81 a-c	46.27 ab	46.87 a	33.32 c-j	47.70 ab	46.02 a	44.65 a-f	44.41 ab
N11024ol	46.59 ab	46.27 ab	45.15 ab	32.43 e-k	46.99 ab	46.42 a	44.42 a-f	44.08 ab
N11028ol	42.21 c-h	47.57 a	45.23 ab	34.95 a-e	45.50 ab	46.71 a	44.91 a-e	44.00 ab
N11034ol	44.65 a-d	46.17 ab	45.19 ab	35.86 a-c	47.05 ab	44.96 ab	41.71 h-j	43.41 ab
N11039olFSr	40.33 gh	43.49 ab	42.56 a-c	32.39 e-k	45.36 ab	44.93 ab	44.02 b-h	42.14 a-d
N11048ol	40.47 f-h	46.09 ab	43.08 a-c	33.08 d-k	45.15 ab	44.65 ab	43.13 d-h	42.34 a-c
N11051olJ	45.10 a-d	44.61 ab	45.27 ab	32.18 f-k	45.99 ab	44.73 ab	44.20 a-g	42.98 a-d
SPT 10-05	41.24 d-h	44.39 ab	44.69 ab	32.88 e-k	45.88 ab	44.14 ab	42.70 e-i	42.32 a-c
SPT 10-12ol	40.55 e-h	40.82 ab	41.81 a-c	32.16 f-k	39.67 c	39.76 c	40.65 ij	39.51 cd
SPT 10-14ol	43.86 a-g	44.48 ab	41.67 a-c	31.09 h-k	44.27 b	45.21 ab	39.84 j	41.28 b-d
Mean	**43.6**	**44.41**	**43.9**	**33.33**	**45.73**	**45.05**	**43.88**	**42.93**
LSD $_{0.05}$[3]	**3.9**	**8.14**	**5.8**	**2.63**	**3.85**	**3.63**	**2.32**	**3.29**

[1] The higher the number the brighter the pod color.
[2] Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.
[3] Fisher's least significant difference (LSD) at P = 0.05

2013 Results by Location

Table 18. Average of pod brightness[1] (Hunter L Score) for fancy pods in 2013.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Blackville, SC	Average of all locations
	Dig I	Dig II	Dig I	Dig II				
Gregory	40.03 g-l	39.23 jk	41.81 e-h	31.82 e-m	45.67 b-i	41.79 i-k	--	40.06 ef
CHAMPS	42.85 b-h	45.80 ab	42.54 c-g	36.10 ab	47.53 a-c	47.35 a	--	43.69 a-c
Phillips	43.38 a-g	45.33 a-c	43.83 a-g	34.15 b-d	46.65 a-d	44.23 c-h	--	42.93 a-e
Bailey	46.62 a	46.95 a	44.64 a-d	33.26 c-f	47.97 a	45.08 a-f	45.94 a	44.55 a
Sugg	45.25 ab	42.12 d-j	44.32 a-f	31.56 e-n	45.46 b-i	45.68 a-d	--	42.40 a-e
Georgia 09B	44.17 a-c	43.84 a-g	42.53 c-g	33.14 c-g	45.70 a-i	43.13 e-j	--	42.08 a-e
Florida 07	43.33 a-g	43.93 a-g	44.46 a-e	35.85 ab	45.97 a-h	42.57 g-j	--	42.68 a-e
Sullivan	44.03 a-e	43.44 b-g	45.19 a-c	30.95 g-o	44.30 e-i	44.58 b-h	44.65 a-d	42.72 a-e
Wynne	42.71 b-h	42.82 b-h	43.18 a-g	29.95 l-o	44.95 d-i	43.53 d-j	43.35 b-g	41.73 a-e
N08082olJCT	40.21 g-l	41.35 f-j	43.21 a-g	32.50 d-k	45.59 b-i	44.77 b-g	44.81 a-d	42.15 a-e
Spain	37.73 l	38.08 k	39.54 h	29.85 m-o	43.54 i	36.83 l	--	37.59 f
N09037ol	40.35 f-l	39.61 i-k	44.32 a-f	29.55 no	44.21 f-i	44.73 b-g	45.28 ab	41.66 a-e
N09039olF	42.32 b-i	44.04 a-g	45.53 ab	32.75 d-i	46.82 a-d	44.05 c-i	43.98 b-g	42.93 a-e
N09042olF	43.87 a-f	45.12 a-d	45.85 a	36.38 a	46.55 a-e	46.96 ab	44.77 a-d	44.28 ab
N10043olJ	37.91 l	41.72 e-j	43.17 a-g	29.03 o	43.96 g-i	41.59 jk	43.32 d-g	40.50 d-f
N10046ol	39.43 h-l	41.28 f-j	41.80 e-h	30.33 k-o	43.85 hi	44.96 a-g	45.28 ab	41.52 a-e
N10047ol	38.48 j-l	44.18 a-f	42.42 d-g	31.22 e-o	43.87 hi	45.11 a-f	44.89 a-d	41.88 a-e
N10051ol	40.77 c-l	43.75 b-g	44.20 a-g	30.48 j-o	44.60 d-i	42.29 h-j	44.98 a-c	42.00 a-e
N10053ol	40.00 g-l	43.44 b-g	43.76 a-g	32.05 d-m	44.74 d-i	45.59 a-d	45.38 ab	42.54 a-e
N10061olFCLSm	40.55 d-l	43.38 b-g	42.23 d-h	31.71 e-n	46.42 a-f	44.58 b-h	44.53 a-d	42.24 a-e
N10066olSmT	40.65 c-l	44.17 a-f	43.89 a-g	30.39 l-o	47.55 ab	45.52 a-e	42.51 g	42.15 a-e
N10070olCLSmT	41.90 b-j	43.72 b-g	42.45 c-g	31.85 e-m	43.63 i	44.32 c-h	42.76 e-g	41.67 a-e
N10078olJC	44.10 a-d	44.23 a-f	42.58 c-g	31.45 e-n	44.73 d-i	43.43 d-j	44.29 b-e	42.39 a-e
N10080olJCL	42.92 b-h	44.23 a-f	42.15 d-h	32.76 d-h	46.18 a-g	44.41 c-h	44.16 b-f	42.62 a-e
N10082olJC	40.47 e-l	42.74 b-i	43.70 a-g	31.57 e-n	43.79 hi	43.82 d-j	44.97 a-c	42.00 a-e
N11019olJ	37.88 l	41.34 f-j	41.46 gh	30.55 i-o	45.74 a-i	43.57 d-j	44.24 b-e	41.12 c-e
N11020olJ	39.05 i-l	42.22 c-j	43.63 a-g	30.73 h-o	45.00 d-i	43.41 d-j	43.48 b-g	41.37 b-e
N11024ol	41.63 c-k	44.60 a-e	42.60 c-g	31.20 f-o	45.00 d-i	43.61 d-j	44.67 a-d	42.24 a-e
N11028ol	40.34 f-l	44.07 a-g	43.54 a-g	33.25 c-f	45.04 d-i	43.69 d-j	43.94 b-g	42.22 a-e
N11034ol	43.49 a-g	44.07 a-g	42.03 d-h	35.23 a-c	45.24 c-i	46.38 a-c	45.15 ab	43.34 a-d
N11039olFSr	38.39 kl	40.98 g-k	41.80 e-h	32.15 d-l	45.19 d-i	44.35 c-h	44.30 b-e	41.42 a-e
N11048ol	38.01 l	41.26 f-k	42.72 c-g	30.59 h-o	44.11 g-i	42.92 f-j	42.46 g	40.56 c-f
N11051olJ	40.59 c-l	39.95 h-k	42.98 b-g	32.33 d-k	44.83 d-i	44.14 c-i	43.45 b-g	41.46 a-e
SPT 10-05	40.24 g-l	41.60 e-j	41.67 f-h	32.68 d-j	44.95 d-i	44.66 b-h	44.94 a-d	41.96 a-e
SPT 10-12ol	40.80 c-l	41.91 e-j	42.11 d-h	33.42 c-e	44.73 d-i	39.65 k	42.56 fg	40.96 c-e
SPT 10-14ol	42.34 b-i	44.15 a-g	42.56 c-g	31.45 e-n	45.65 b-i	45.63 a-d	45.41 ab	42.82 a-e
Mean	**41.3**	**42.90**	**43.1**	**32.06**	**45.27**	**43.97**	**44.29**	**42.03**
LSD $_{0.05}$[3]	**3.6**	**3.18**	**2.8**	**2.21**	**2.30**	**2.43**	**1.64**	**3.15**

[1] The higher the number the brighter the pod color.

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

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

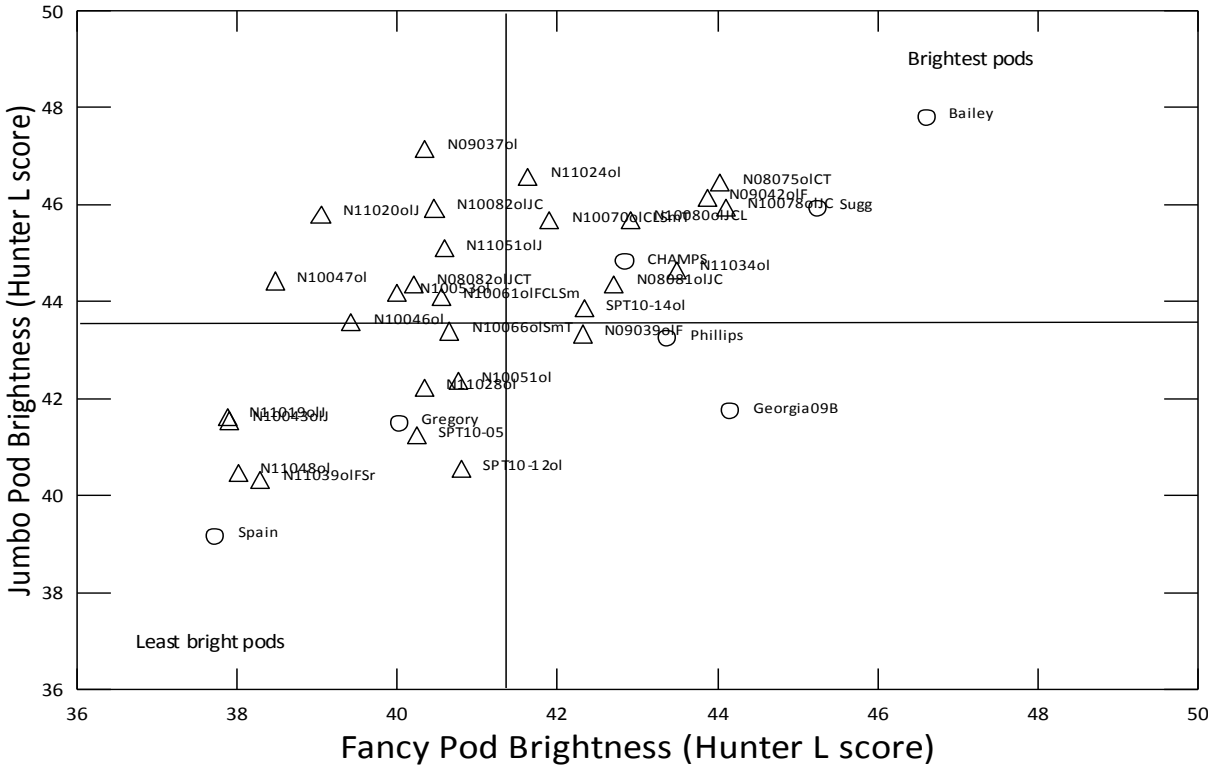

Figure 1. Brightness of jumbo and fancy pods of Digging Date I at Tidewater AREC, Suffolk, VA, in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location and digging date.

2013 Results by Location

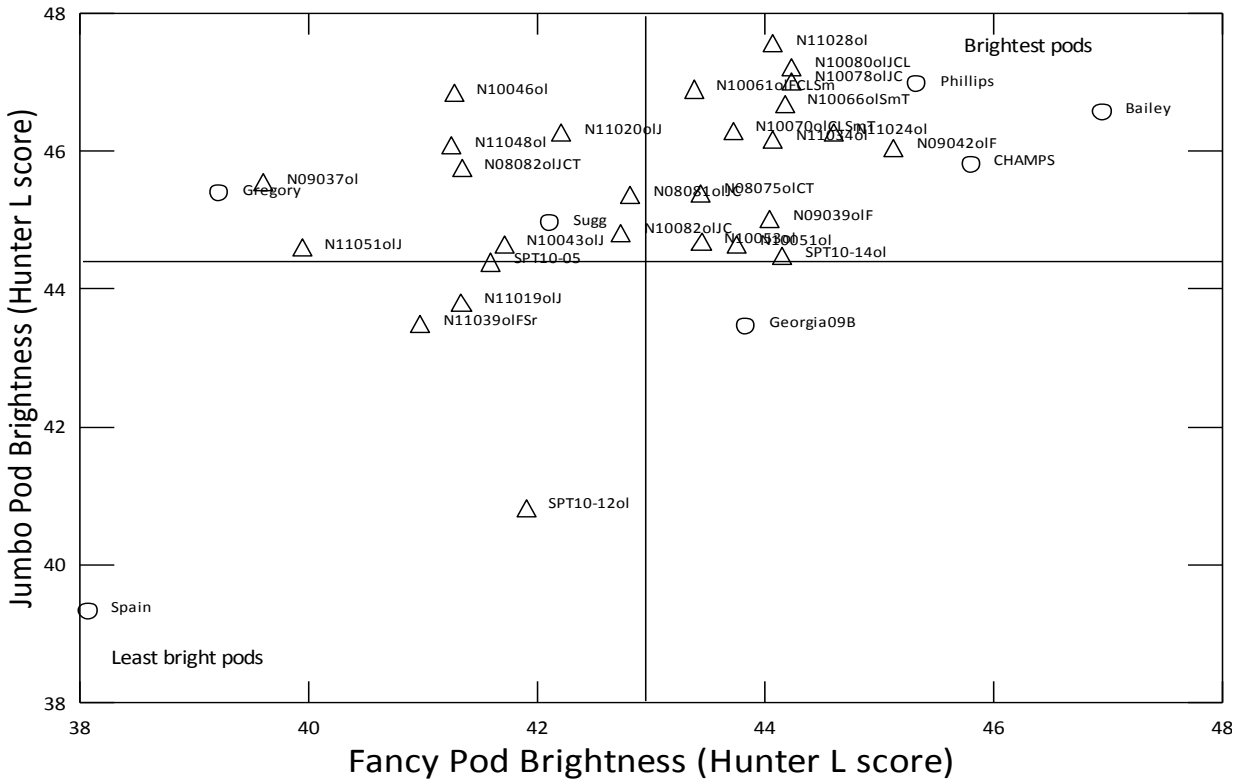

Figure 2. Brightness of jumbo and fancy pods of Digging Date II at Tidewater AREC, Suffolk, VA, in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location and digging date.

2013 Results by Location

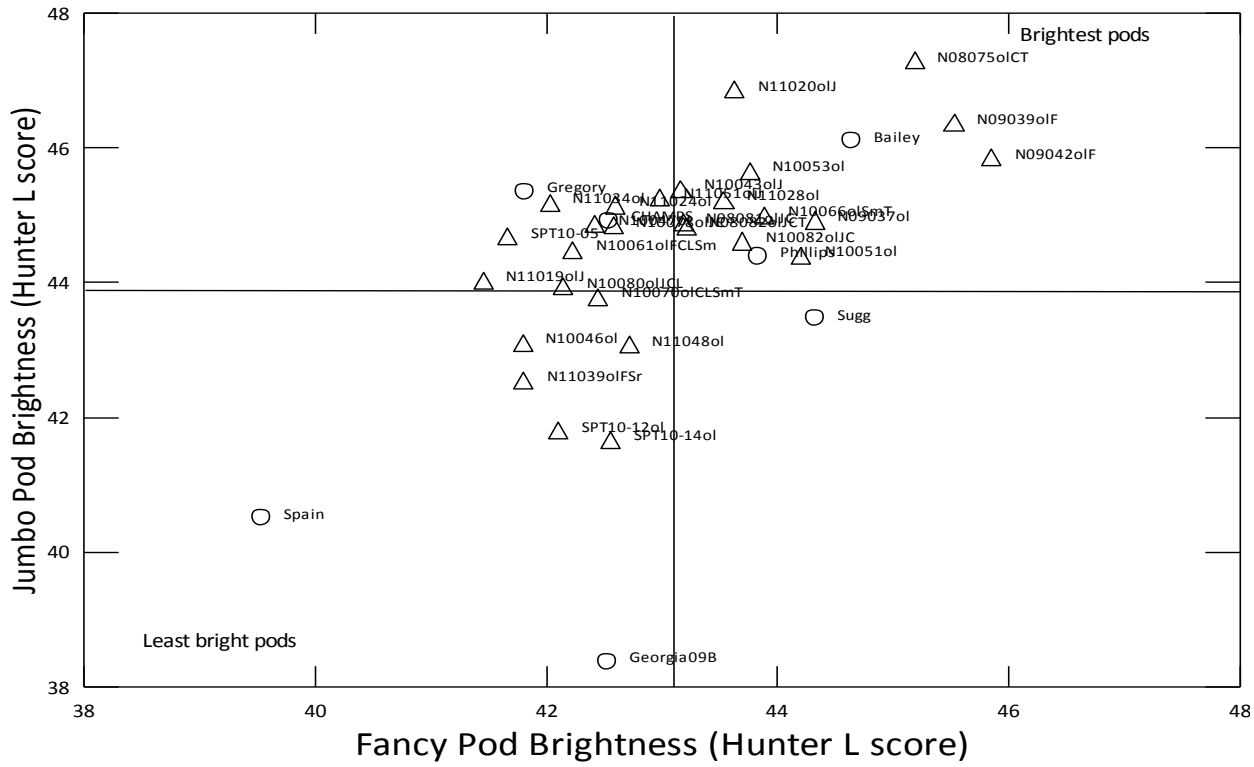

Figure 3. Brightness of jumbo and fancy pods of Digging Date I at Martin Co., NC, in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location and digging date.

2013 Results by Location

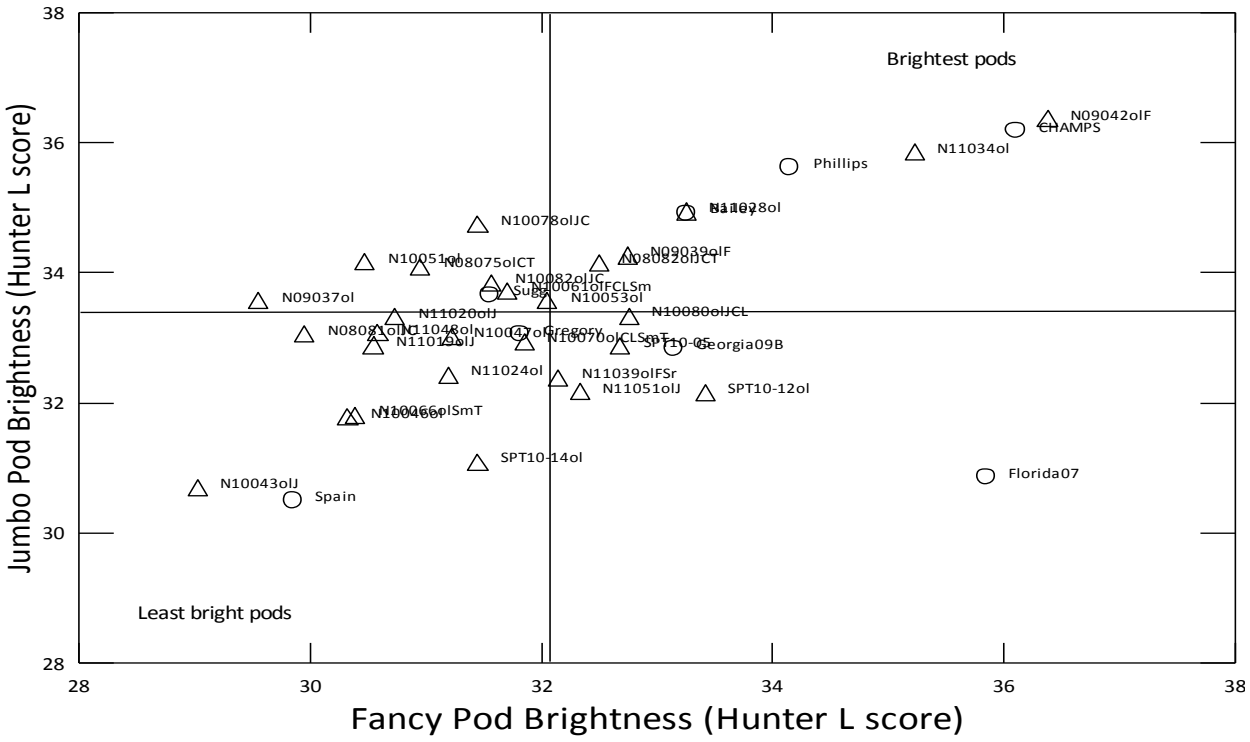

Figure 4. Brightness of jumbo and fancy pods of Digging Date II at Martin Co., NC, in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location and digging date.

2013 Results by Location

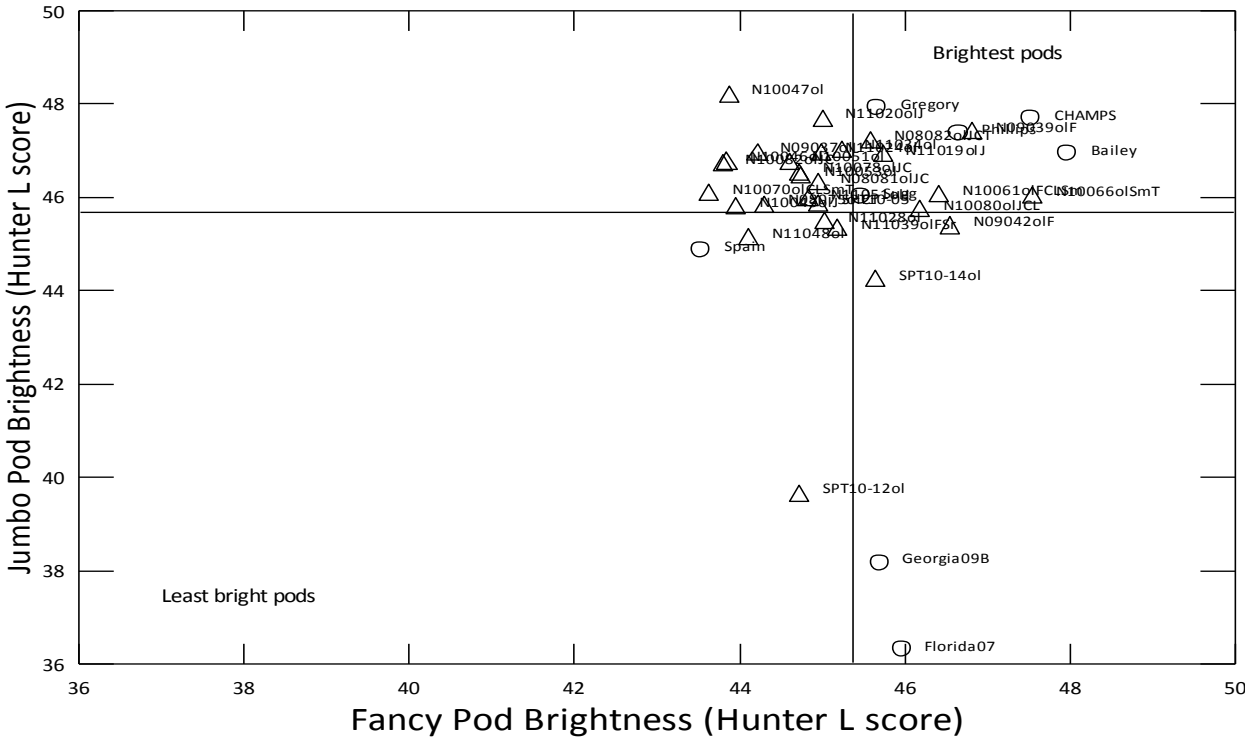

Figure 5. Brightness of jumbo and fancy pods at Rocky Mount, NC, in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location.

2013 Results by Location

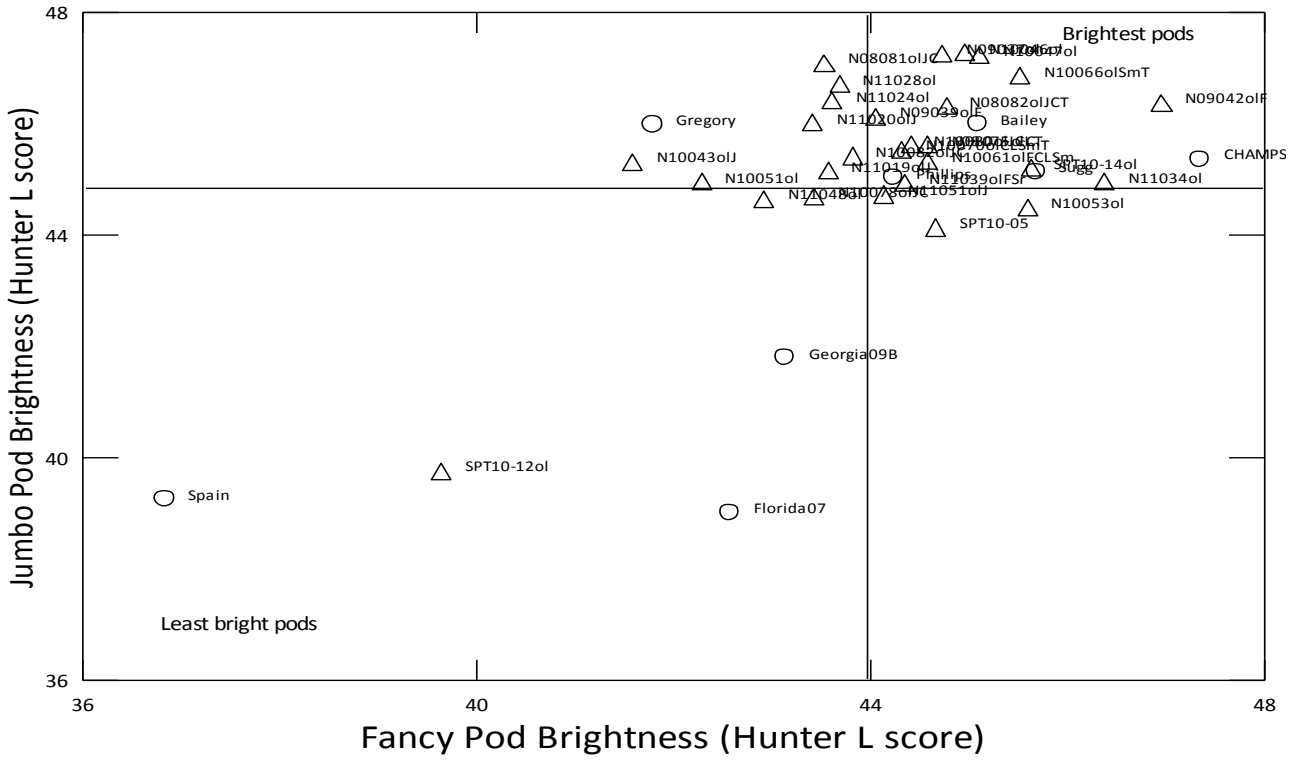

Figure 6. Brightness of jumbo and fancy pods at Bladen Co., NC, in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location.

2013 Results by Location

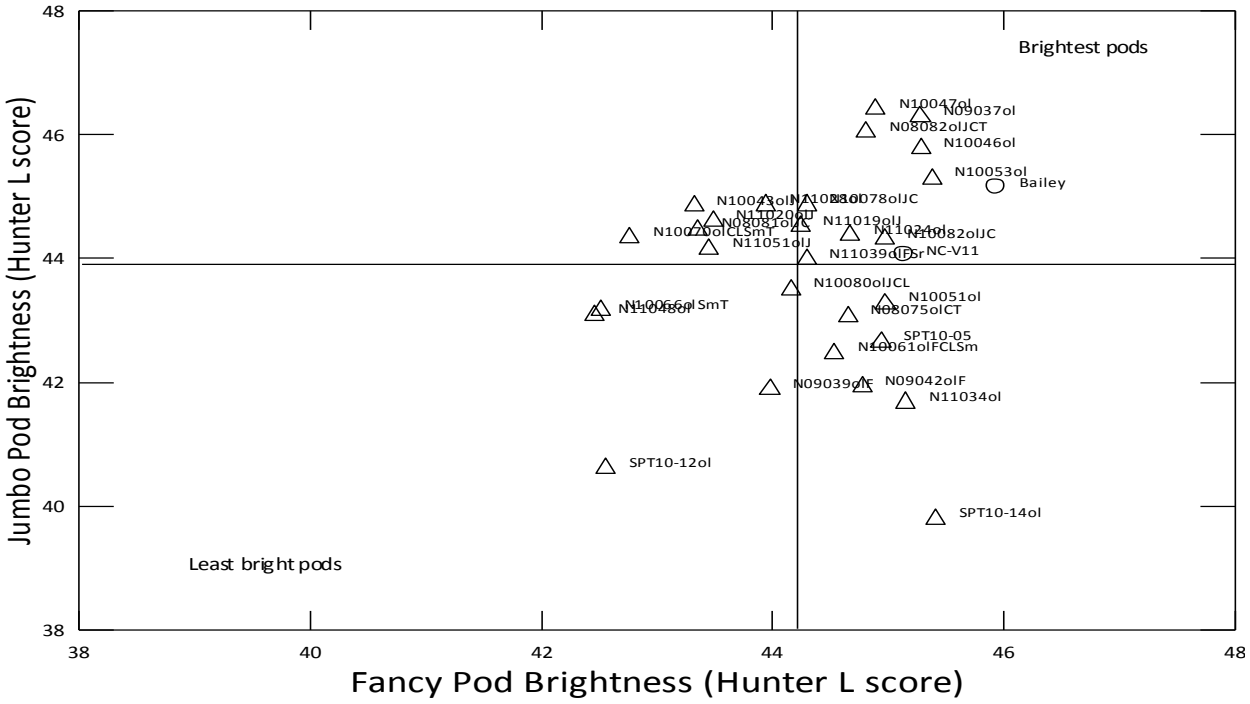

Figure 7. Brightness of jumbo and fancy pods at Blackville, SC, in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location.

2013 Results by Location

RESULTS – YIELD AND GRADE BY LOCATION

Table 19. Performance of genotypes at Tidewater AREC (Suffolk), VA, in 2013. Dig I averages of two replicated plots planted on 4 May, dug on 18 September, and combined on 24 September.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.6	0.9	98 ab	7.2	49 ab	0.9	2.9	3.5	62 b-e	69 f-l	16.11 a-g	5308 a-g	854 a-g
CHAMPS	0.5	1.0	91 e-i	7.0	43 c-j	1.5	4.1	3.0	63 a-c	72 b-d	16.67 a-d	5568 a-d	928 a-d
Phillips	0.6	0.7	93 c-i	6.9	52 a	0.5	2.6	2.0	67 a	72 a-c	17.60 a	5534 a-d	978 a
Bailey	0.6	0.7	86 j	7.0	40 g-l	1.9	5.2	1.6	62 b-e	71 c-g	16.74 a-d	5647 a-c	945 a-c
Sugg	0.3	0.7	89 g-j	7.4	39 h-l	1.7	5.9	2.7	61 b-e	72 b-d	16.31 a-f	5416 a-e	884 a-g
Georgia 09B	3.1	1.1	61 m	6.9	29 op	1.0	6.5	2.9	63 a-d	73 ab	15.59 b-g	4869 c-g	762 d-h
Florida 07	0.7	1.4	21 n	7.2	22 q	1.2	9.2	4.0	60 c-f	74 a	14.45 g	5359 a-f	773 c-h
Sullivan	0.3	1.1	96 a-e	7.5	44 b-h	0.9	4.8	2.1	62 b-e	70 d-k	16.40 a-f	5499 a-d	902 a-f
Wynne	1.7	0.9	97 a-c	7.0	42 e-k	1.3	4.6	3.7	59 c-f	69 i-m	15.53 b-g	5674 ab	883 a-g
N08082olJCT	1.0	0.6	97 a-c	7.1	44 b-i	1.0	4.2	2.6	62 b-e	70 d-k	16.36 a-f	5560 a-d	911 a-f
Spain	1.2	0.9	96 a-d	8.0	30 no	1.2	4.2	19.6	41 j	66 n	6.17 j	4987 b-g	309 k
N09037ol	0.6	1.0	97 a-c	7.1	46 b-f	1.9	4.1	2.0	62 b-e	70 d-k	16.63 a-d	5453 a-d	908 a-f
N09039olF	0.8	1.3	88 ij	7.9	36 l-n	0.2	4.1	2.9	59 d-f	68 j-m	15.30 c-g	5165 a-g	792 b-h
N09042olF	2.7	0.8	80 k	7.5	42 d-k	1.9	5.2	2.0	61 b-e	70 c-i	16.56 a-e	5580 a-d	924 a-e
N10043olJ	0.8	1.0	96 a	6.7	42 d-k	1.3	3.2	3.5	59 c-f	67 mn	15.38 b-g	4611 e-g	710 gh
N10046ol	1.1	0.7	97 a-c	7.3	46 b-f	1.0	3.7	1.9	63 a-c	70 d-k	16.76 a-d	5237 a-g	878 a-g
N10047ol	0.6	0.8	96 a-d	7.2	48 a-c	1.3	4.1	4.1	61 b-e	71 c-i	15.45 b-g	5550 a-d	869 a-g
N10051ol	0.5	0.7	94 b-g	8.8	45 b-g	0.7	5.1	2.8	61 b-f	69 e-l	16.07 a-g	5644 a-c	910 a-f
N10053ol	0.5	0.8	92 d-i	7.1	43 c-k	3.5	4.4	3.2	59 c-f	70 c-k	16.10 a-g	5151 a-g	830 a-h
N10061olFCLSm	0.9	0.7	90 g-j	6.8	41 f-l	2.5	3.9	1.6	63 b-d	71 c-i	16.98 a-c	5091 a-g	862 a-g
N10066olSmT	0.5	0.8	91 e-i	7.3	40 g-l	0.9	4.5	2.2	61 b-e	69 g-l	16.23 a-f	4978 b-g	809 a-h
N10070olCLSmT	0.5	0.9	90 g-j	7.3	38 j-l	2.4	5.5	1.2	61 b-f	70 d-k	16.54 a-e	4917 b-g	814 a-h
N10078olJC	0.5	0.9	91 f-i	7.3	37 k-m	1.8	5.3	3.8	60 b-f	71 c-i	15.79 b-g	5133 a-g	811 a-h
N10080olJCL	0.5	1.0	91 f-i	7.0	42 d-k	1.0	4.6	3.0	63 a-d	71 b-e	16.45 a-e	5870 a	965 ab
N10082olJC	0.3	1.1	97 a-c	7.1	44 b-h	1.5	3.5	1.7	64 ab	71 c-h	17.06 ab	5354 a-f	913 a-e
N11019olJ	0.5	1.0	97 a-c	7.2	41 f-l	0.6	5.1	1.8	61 b-f	68 j-m	16.14 a-g	4527 g	730 f-h
N11020olJ	0.4	0.7	99 a	7.3	44 b-i	1.1	3.5	3.4	60 c-f	67 l-n	15.53 b-g	5625 a-d	874 a-g
N11024ol	0.3	0.9	96 a-d	7.6	47 a-e	1.9	4.2	3.2	61 b-e	70 c-j	16.27 a-f	5405 a-e	879 a-g
N11028ol	0.8	0.9	93 b-h	7.3	38 i-l	2.8	5.3	4.3	57 fg	69 h-m	14.89 e-g	5691 ab	846 a-h
N11034ol	0.6	0.9	86 j	7.2	36 l-n	1.8	5.8	0.7	62 b-e	70 c-i	16.85 a-c	5469 a-d	922 a-e
N11039olFSr	0.9	0.7	89 h-j	7.4	35 l-n	2.5	6.1	4.4	58 ef	71 c-f	15.14 d-g	4906 b-g	743 e-h
N11048ol	0.6	1.3	97 a-c	8.1	42 d-k	1.1	4.8	3.6	59 c-f	69 h-m	15.57 b-g	4839 d-g	756 d-h
N11051olJ	0.5	0.7	95 a-f	7.2	48 a-d	2.1	3.1	3.9	62 b-e	71 c-f	16.33 a-f	5644 a-c	922 a-e
SPT 10-05	0.3	2.3	91 e-i	7.4	32 m-o	1.0	12.1	1.7	53 gh	68 k-m	14.73 fg	4547 g	670 hi
SPT 10-12ol	1.0	0.7	60 m	8.3	23 pq	0.9	11.1	5.4	48 i	65 n	11.52 h	4564 fg	525 ij
SPT 10-14ol	0.9	1.7	66 l	7.4	22 q	1.1	6.5	11.7	52 hi	71 c-h	8.86 i	5224 a-g	463 jk
Mean	**0.8**	**0.9**	**88**	**7.3**	**40**	**1.4**	**5.1**	**3.5**	**60**	**70**	**15.47**	**5266**	**818**
LSD $_{0.05}$[3]	**1.4**	**0.5**	**5**	**1.1**	**6**	**1.4**	**1.6**	**2.3**	**4**	**2**	**0.02**	**805**	**183**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

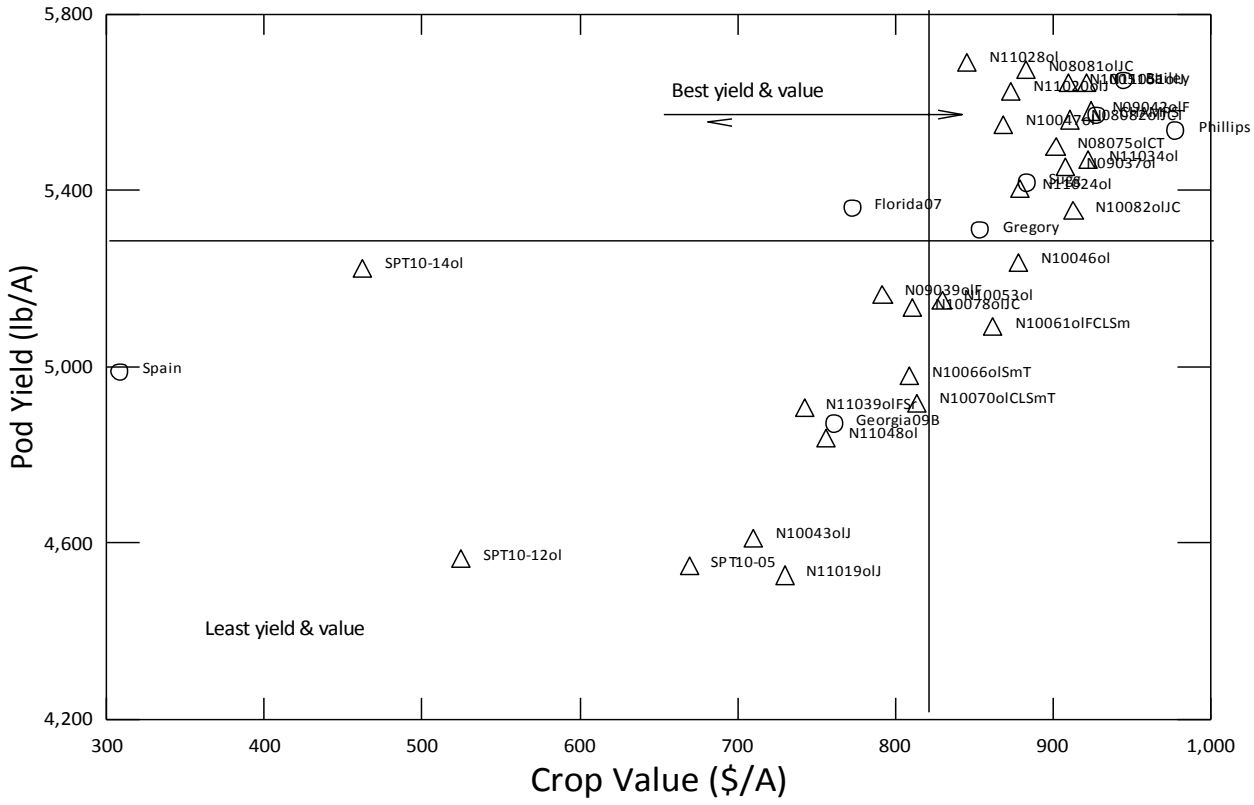

Figure 8. Summary of pod yield and crop value at Tidewater AREC (Suffolk), VA, Digging Date I in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2013 Results by Location

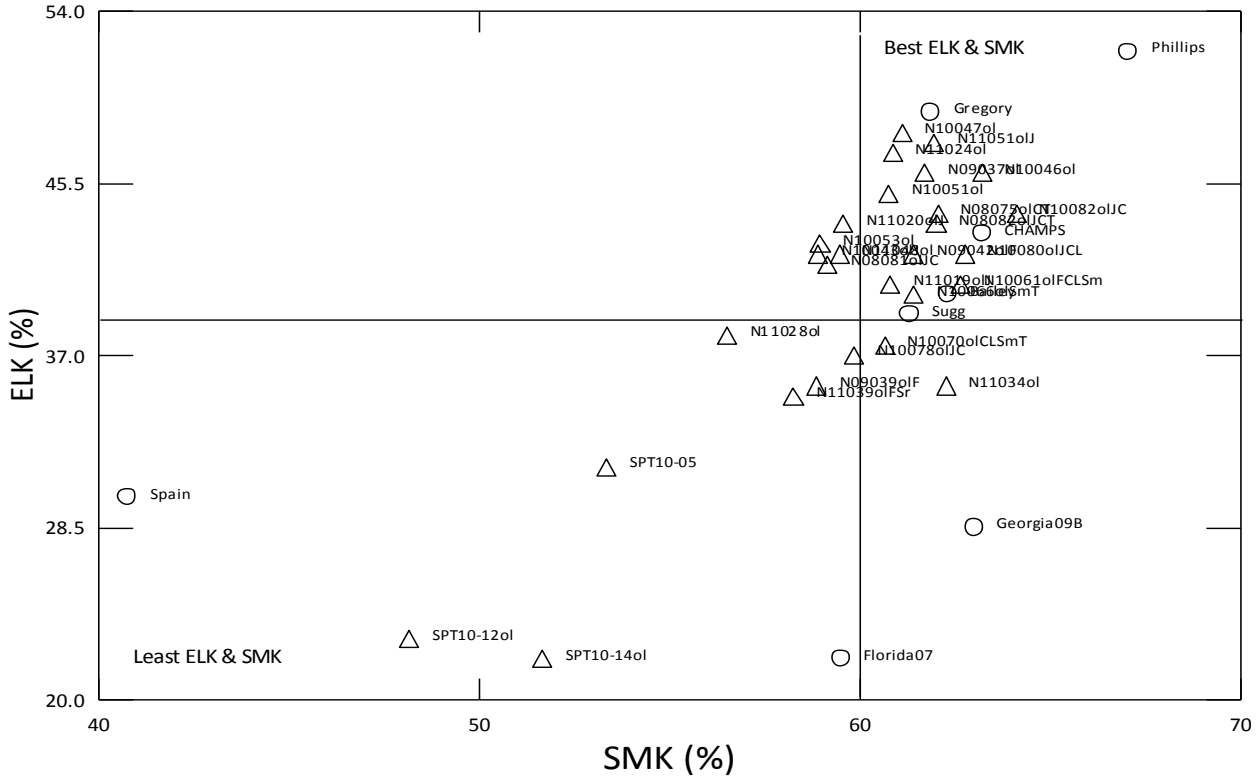

Figure 9. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Tidewater AREC (Suffolk), VA, Digging Date I in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

Table 20. Performance of genotypes at Tidewater AREC (Suffolk), VA in 2013. Dig II averages of two replicated plots planted on 4 May, dug on 30 Septmeber, and combined on 4 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.4	0.9	95 a	7.0	50 a-d	1.8	2.0	2.8	64 b-j	70 e-g	16.85 a-d	5513 d-j	931 a-h
CHAMPS	0.6	1.3	85 b-f	6.9	41 f-j	3.0	2.8	3.9	63 b-j	73 a-e	16.19 a-e	5438 e-j	887 a-i
Phillips	0.4	0.9	90 a-d	7.2	55 a	2.7	1.6	2.3	67 a-e	74 a-d	18.18 a	5600 c-j	1018 a-g
Bailey	0.4	0.6	85 b-f	6.9	45 c-i	2.1	1.9	2.4	67 a-f	73 a-e	17.67 ab	6330 a-d	1119 a
Sugg	0.2	0.7	89 a-e	7.2	47 b-g	1.5	2.0	2.9	67 a-d	74 a-d	17.63 a-c	6173 a-e	1088 a-c
Georgia 09B	1.0	1.3	62 h	7.2	37 j	1.5	1.9	2.2	70 a	75 a	17.24 a-d	5443 e-j	939 a-h
Florida 07	0.2	1.0	22 i	7.5	24 k	1.8	5.0	3.4	65 a-i	75 ab	16.05 a-f	5677 b-j	913 a-i
Sullivan	0.2	0.9	88 a-e	7.2	46 b-i	1.1	2.4	1.8	66 a-i	71 c-f	17.35 a-c	6315 a-d	1096 ab
Wynne	0.2	0.7	95 a	7.2	46 b-i	1.8	2.0	3.6	63 c-j	70 e-g	16.51 a-e	5513 d-j	908 a-i
N08082olJCT	1.2	0.7	93 ab	7.8	44 d-j	3.7	1.8	5.6	60 i-l	71 c-f	15.09 b-f	5625 c-j	847 d-i
Spain	0.8	1.3	92 a-d	7.9	42 f-j	1.1	2.2	9.5	55 lm	68 g	10.18 h	5022 h-k	509 j
N09037ol	0.5	0.6	92 a-d	7.5	47 b-g	2.6	1.9	4.2	63 c-j	72 c-f	16.38 a-e	6096 a-e	1000 a-g
N09039olF	0.1	0.7	84 b-f	7.3	43 e-j	1.2	2.5	1.5	67 a-g	72 c-f	17.55 a-c	6075 a-e	1064 a-e
N09042olF	0.3	0.8	79 ef	7.5	40 g-j	3.2	2.1	3.0	64 b-j	72 a-e	17.09 a-d	6143 a-e	1050 a-f
N10043olJ	0.5	1.3	96 a	7.3	50 a-e	1.5	2.1	4.0	61 g-k	69 fg	15.91 a-f	4443 k	707 h-j
N10046ol	0.4	1.2	89 a-d	7.4	48 a-f	2.7	1.8	4.1	64 b-j	72 a-e	16.34 a-e	5051 g-k	836 e-i
N10047ol	0.4	1.5	89 a-d	7.6	50 a-d	1.9	2.3	4.7	64 b-j	73 a-e	16.37 a-e	4872 jk	800 g-i
N10051ol	0.3	0.7	96 a	8.1	53 ab	1.4	1.3	3.8	65 a-i	71 c-f	16.50 a-e	6421 a-c	1067 a-e
N10053ol	0.3	0.5	92 a-d	6.9	49 a-e	3.6	1.6	1.5	66 a-i	73 a-e	18.06 a	5828 a-h	1052 a-f
N10061olFCLSm	0.5	0.5	83 c-f	7.2	47 b-h	1.6	1.4	1.9	69 ab	74 a-d	18.17 a	5670 b-j	1030 a-g
N10066olSmT	0.1	0.4	91 a-d	7.1	52 a-c	1.3	1.6	1.6	69 a-c	73 a-e	18.13 a	5784 a-h	1049 a-f
N10070olCLSmT	0.3	0.7	89 a-e	7.7	47 b-g	1.5	2.2	2.8	66 a-h	73 a-e	17.48 a-c	5744 a-i	1005 a-g
N10078olJC	0.3	1.0	91 a-d	7.4	47 b-h	3.0	2.2	3.7	64 a-i	73 a-e	16.74 a-d	5868 a-g	979 a-g
N10080olJCL	0.1	0.9	93 a-c	7.3	47 b-g	3.2	1.8	3.5	64 b-j	72 b-e	16.74 a- d	6513 a	1096 ab
N10082olJC	0.2	0.9	92 a-d	7.9	47 b-g	2.3	1.7	3.5	65 a-i	73 a-e	17.17 a-d	6476 ab	1112 a
N11019olJ	0.6	0.9	96 a	7.4	48 a-f	0.6	1.5	3.2	67 a-g	72 b-e	17.14 a-d	4928 i-k	845 d-i
N11020olJ	0.3	0.7	96 a	7.6	51 a-d	1.7	1.4	4.2	64 b-j	71 c-f	16.37 a-e	6033 a-f	987 a-g
N11024ol	0.2	0.8	93 ab	7.2	44 d-j	5.3	2.1	6.5	57 kl	71 c-f	13.67 e-g	5011 h-k	685 ij
N11028ol	0.3	0.8	87 a-f	6.9	40 g-j	3.2	1.8	5.7	61 h-k	71 c-f	14.45 d-f	5625 c-j	813 g-i
N11034ol	0.6	0.8	83 d-f	7.0	39 ij	2.9	1.9	2.7	65 a-i	73 a-e	17.28 a-d	5521 d-j	955 a-g
N11039olFSr	0.3	1.0	87 a-e	7.2	41 f-j	3.7	2.3	5.8	63 d-k	74 a-c	15.08 b-f	5733 a-i	868 b-i
N11048ol	0.2	0.6	93 a-c	7.3	45 c-i	2.5	2.6	2.3	64 a-i	72 c-f	17.20 a-d	6225 a-e	1071 a-d
N11051olJ	0.5	0.9	92 a-d	8.0	47 b-g	2.5	2.3	5.1	62 e-k	71 c-f	15.11 b-f	5547 d-j	858 c-i
SPT 10-05	0.1	1.2	77 fg	9.3	40 h-j	0.8	4.5	4.3	61 f-k	71 d-g	14.81 c-f	5588 d-j	831 f-i
SPT 10-12ol	0.2	1.0	68 gh	7.9	24 k	1.5	5.6	4.1	51 m	62 h	13.26 fg	5238 f-k	698 ij
SPT 10-14ol	0.4	1.4	60 h	7.7	25 k	1.1	3.9	8.5	58 j-l	72 b-f	11.39 gh	6009 a-f	686 ij
Mean	**0.4**	**0.9**	**85**	**7.4**	**44**	**2.2**	**2.3**	**3.8**	**64**	**72**	**16.20**	**5697**	**928**
LSD $_{0.05}$[3]	**0.4**	**0.5**	**10**	**0.9**	**7**	**1.6**	**1.5**	**2.7**	**6**	**3**	**0.03**	**832**	**232**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

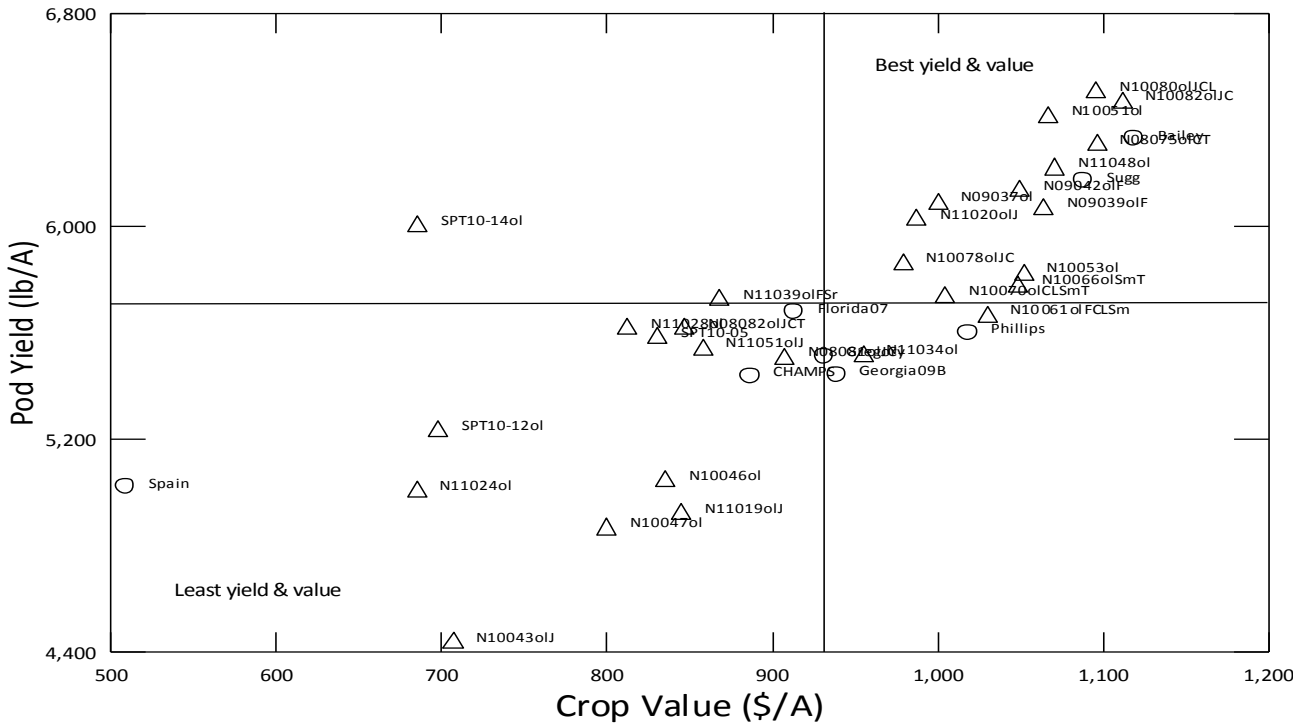

Figure 10. Summary of pod yield and crop value at Tidewater AREC (Suffolk), VA, Digging Date II in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2013 Results by Location

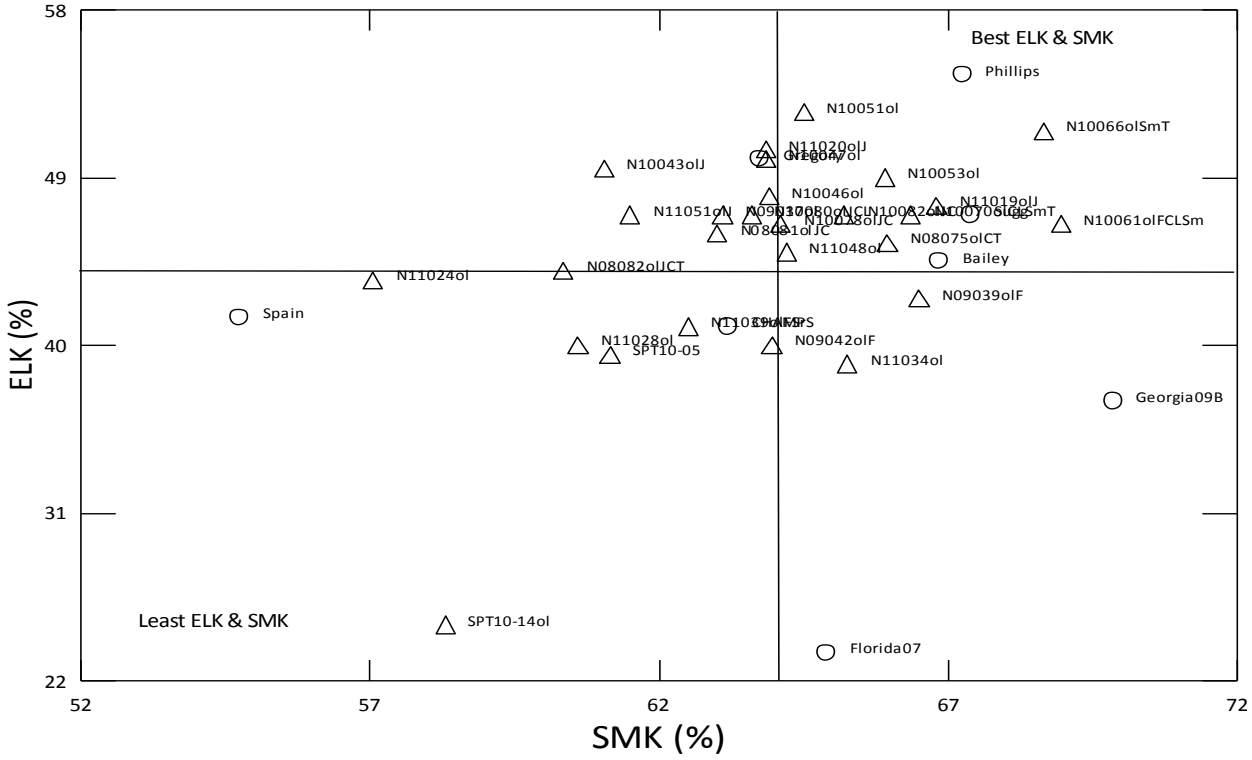

Figure 11. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Tidewater AREC (Suffolk), VA, Digging Date II in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

2013 Results by Location

Table 21. Performance of genotypes at Martin Co., NC, in 2013. Dig I averages of two replicated plots planted on 16 May, dug on 9 September, and combined on 25 September.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.5	1.5	93 a-c	6.0	33 a	0.5	3.3	1.2	63 a	68 c-l	16.37 a	3496 d-i	573 d-l
CHAMPS	0.5	1.3	87 e-i	6.2	24 b-g	0.7	4.9	2.3	62 a-c	69 b-g	15.87 a	3773 b-i	599 a-k
Phillips	0.3	0.8	88 c-i	6.0	27 a-e	1.0	3.9	1.0	63 a	69 b-h	16.61 a	4203 a-h	698 a-h
Bailey	0.4	1.1	83 i-k	6.0	26 a-f	1.0	4.9	1.1	63 ab	69 b-e	16.40 a	4406 a-e	723 a-e
Sugg	0.4	1.4	83 i-k	6.0	25 b-f	1.6	5.3	2.0	61 a-e	70 bc	16.09 a	3882 b-i	625 a-k
Georgia 09B	0.5	1.1	47 n	6.3	13 j-m	0.6	7.0	1.7	64 a	73 a	16.03 a	3412 e-i	547 e-l
Florida 07	0.6	0.9	19 o	6.1	9 lm	1.1	7.5	2.4	62 ab	73 a	11.95 c	3405 e-i	395 l
Sullivan	0.6	1.6	84 h-k	6.1	28 a-d	1.4	5.3	1.5	60 a-e	68 b-j	15.98 a	3827 b-i	612 a-k
Wynne	1.0	2.0	94 ab	6.2	28 a-d	0.5	4.5	2.0	61 a-e	68 c-l	15.80 a	4114 a-h	652 a-j
N08082olJCT	0.6	1.6	92 a-e	6.3	25 b-g	1.0	3.8	1.3	61 a-e	67 g-n	15.96 a	4178 a-h	667 a-i
Spain	0.3	1.0	92 a-e	7.0	25 b-g	0.8	4.5	10.2	50 h	65 l-n	8.77 d	4339 a-g	381 l
N09037ol	0.6	1.5	89 b-h	6.3	31 ab	1.1	3.9	1.3	63 ab	69 b-h	16.55 a	4667 a-c	772 a-c
N09039olF	0.7	1.4	79 k	6.2	16 h-l	0.4	5.6	1.3	61 a-e	68 b-j	15.75 a	3963 b-i	626 a-k
N09042olF	0.4	0.9	67 l	6.3	20 e-i	1.8	4.7	0.8	63 a	71 b	16.77 a	4080 a-i	685 a-h
N10043olJ	0.9	1.9	93 a-d	6.3	31 ab	0.6	3.5	1.3	63 ab	68 b-k	16.40 a	4320 a-g	709 a-g
N10046ol	0.5	1.4	91 b-f	6.7	30 a-c	1.1	4.2	0.5	62 a-c	67 c-l	16.32 a	4390 a-f	716 a-f
N10047ol	0.4	1.5	89 b-h	6.2	29 a-c	1.0	4.0	1.2	63 ab	69 b-i	16.49 a	4038 b-i	667 a-i
N10051ol	0.5	1.5	86 f-i	6.5	29 a-d	0.8	4.0	1.0	62 ab	68 c-l	16.30 a	4173 a-h	680 a-h
N10053ol	0.5	1.5	90 b-g	6.0	22 d-h	1.5	5.2	1.1	58 b-g	66 k-n	15.40 a	4071 a-i	632 a-k
N10061olFCLSm	0.7	1.8	86 f-i	6.1	20 e-i	0.6	7.2	0.4	58 b-g	66 j-n	15.27 a	3062 i	468 j-l
N10066olSmT	0.6	2.2	86 f-i	6.3	22 d-h	0.4	5.5	1.0	60 a-f	67 h-n	15.62 a	3675 c-i	574 c-l
N10070olCLSmT	0.6	2.2	89 b-h	6.5	14 j-m	0.4	7.8	1.2	55 fg	64 n	14.40 a-c	3549 d-i	511 g-l
N10078olJC	0.7	1.5	87 d-i	6.4	17 h-k	0.7	7.6	1.9	56 e-g	66 i-n	14.69 ab	3559 d-i	523 f-l
N10080olJCL	0.8	2.4	88 c-i	6.7	16 h-k	0.6	8.5	1.4	54 gh	65 mn	14.31 a-c	3639 c-i	538 e-l
N10082olJC	1.0	2.1	87 d-i	6.2	18 g-k	0.9	5.8	1.7	59 a-f	68 c-l	15.48 a	3965 b-i	616 a-k
N11019olJ	0.8	2.1	93 a-d	6.3	16 h-l	0.1	7.8	1.4	56 e-g	65 l-n	14.62 ab	3246 hi	475 i-l
N11020olJ	0.6	1.6	97 a	6.2	28 a-d	0.9	4.1	1.2	61 a-d	67 f-n	16.06 a	4800 ab	773 ab
N11024ol	0.4	1.8	87 d-i	6.2	25 b-g	1.7	5.1	3.3	57 c-g	67 e-n	14.92 a	3864 b-i	577 b-l
N11028ol	0.7	1.7	85 g-j	6.2	23 c-h	1.6	4.7	2.2	60 a-f	68 c-l	15.64 a	5085 a	794 a
N11034ol	0.7	1.7	78 k	6.6	19 f-j	0.8	4.5	0.6	64 a	70 b-d	16.59 a	4507 a-d	747 a-d
N11039olFSr	1.2	1.8	80 jk	6.3	19 f-j	1.4	5.7	1.6	61 a-d	70 bc	16.12 a	3353 f-i	541 e-l
N11048ol	0.6	1.5	88 c-i	6.2	26 a-f	1.0	4.7	1.3	61 a-e	68 c-l	16.00 a	3918 b-i	627 a-k
N11051olJ	0.6	1.2	91 a-f	6.1	28 a-d	0.9	4.2	2.0	61 a-e	68 c-l	15.86 a	4053 a-i	643 a-j
SPT 10-05	0.5	2.9	86 f-i	6.2	17 h-k	0.7	8.3	1.6	57 d-g	67 d-m	14.93 a	3332 g-i	502 h-l
SPT 10-12ol	0.7	1.6	43 n	6.4	11 k-m	0.9	10.3	1.1	54 gh	66 j-n	14.39 a-c	3257 hi	471 i-l
SPT 10-14ol	0.4	2.1	54 m	6.2	8 m	0.5	8.0	5.9	55 fg	69 b-f	12.42 bc	3528 d-i	439 kl
Mean	**0.6**	**1.6**	**82**	**6.2**	**22**	**0.9**	**5.5**	**1.8**	**60**	**68**	**15.36**	**3920**	**605**
LSD $_{0.05}$[3]	**0.6**	**0.9**	**6**	**0.6**	**7**	**0.8**	**2.2**	**1.2**	**5**	**3**	**0.02**	**1039**	**198**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

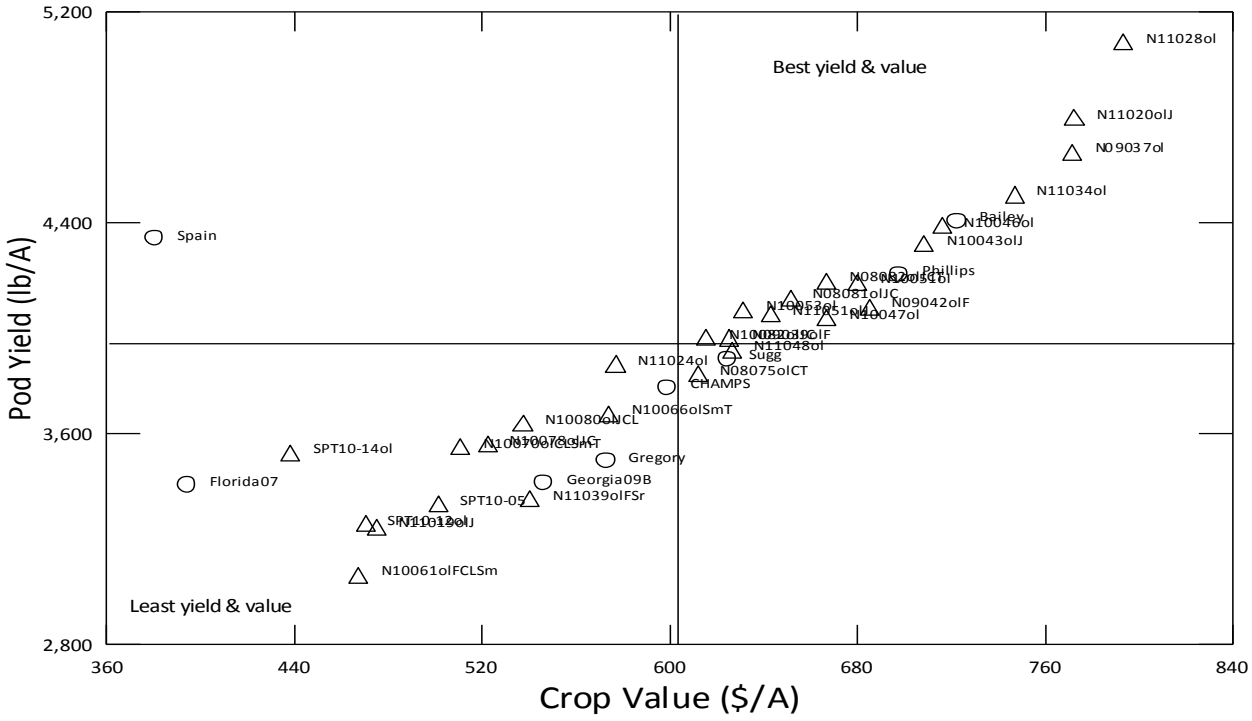

Figure 12. Summary of pod yield and crop value at Martin Co., NC, Digging Date I in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2013 Results by Location

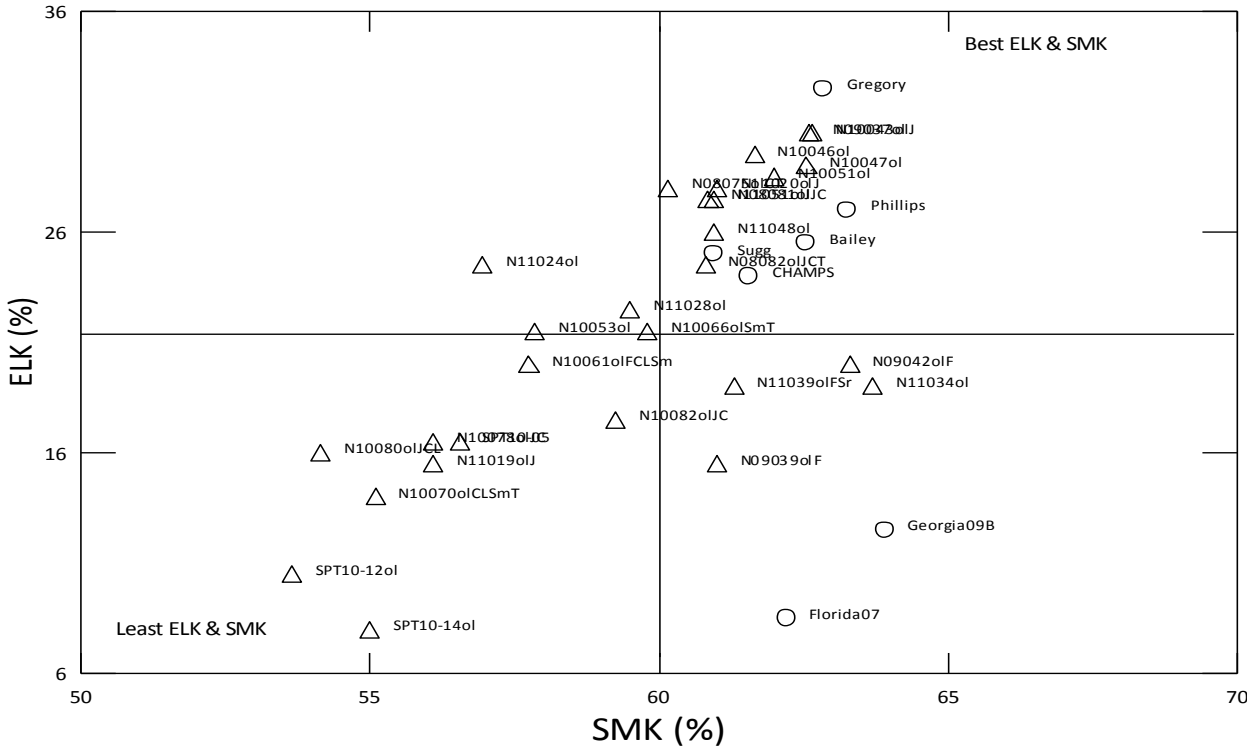

Figure 13. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Martin Co., NC, Digging Date I in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

2013 Results by Location

Table 22. Performance of genotypes at Martin Co., NC, in 2013. Dig II averages of two replicated plots planted on 16 May, dug on 1 October, and combined on 18 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	1.8	1.2	94 ab	8.6	42 a-c	1.7	1.5	2.1	66 a-g	71 c-g	17.28 a-e	3773 c-i	652 c-g
CHAMPS	1.3	2.7	87 e-h	8.2	33 e-k	0.6	2.4	3.2	66 a-g	72 c-g	16.72 a-f	3965 b-i	664 c-g
Phillips	0.9	1.0	89 b-g	7.8	41 a-d	1.7	1.8	2.3	67 a-c	72 c-f	17.52 a	5236 a	919 a
Bailey	0.7	1.0	84 g-j	7.6	30 g-k	2.1	2.5	2.9	64 b-j	72 c-g	16.75 a-f	4504 a-e	756 a-e
Sugg	1.7	1.0	82 h-j	7.6	29 i-m	2.3	3.7	3.5	62 g-k	71 c-g	16.11 a-h	4273 a-g	691 b-g
Georgia 09B	3.0	1.2	56 l	7.4	23 l-n	1.8	2.5	2.5	69 a	75 b	16.99 a-e	3275 f-i	557 d-g
Florida 07	1.6	1.2	27 m	7.7	18 no	2.8	2.9	3.1	67 a-c	81 a	16.59 a-f	3363 e-i	558 d-g
Sullivan	0.9	0.9	81 ij	7.9	36 c-h	2.1	2.5	2.6	66 a-f	73 bc	17.34 a-d	3750 c-i	651 c-g
Wynne	1.0	0.9	89 b-g	7.6	39 b-e	3.1	3.0	4.5	61 jk	71 c-g	15.35 f-i	4405 a-f	674 c-g
N08082olJCT	1.2	0.7	94 a-c	8.4	36 c-h	1.6	2.7	4.1	63 c-k	71 c-g	15.84 c-i	4162 a-h	657 c-g
Spain	1.3	0.9	94 ab	8.5	42 a-c	0.5	2.2	5.0	61 h-k	69 g	14.85 g-i	3810 c-i	565 c-g
N09037ol	0.8	0.8	94 ab	7.9	41 a-d	3.1	1.4	4.5	62 f-k	71 c-g	15.99 a-i	4241 a-g	678 c-g
N09039olF	1.4	1.0	86 f-i	7.8	32 f-k	1.5	2.9	1.6	66 a-d	72 c-f	17.39 a-c	3784 c-i	660 c-g
N09042olF	1.1	0.9	74 k	7.7	29 i-l	3.0	3.0	1.6	65 a-i	73 b-e	17.43 ab	4115 a-i	718 a-f
N10043olJ	1.2	0.7	96 a	7.8	48 a	1.5	1.9	3.2	65 a-i	72 c-g	16.97 a-e	4234 a-g	719 a-f
N10046ol	1.3	0.7	89 b-g	8.0	40 b-d	1.7	1.6	2.1	66 a-e	73 bc	17.39 a-c	3181 g-i	554 d-g
N10047ol	1.1	0.8	89 b-g	7.7	41 a-d	1.9	2.1	2.3	66 a-c	73 b-e	17.49 a	3978 b-i	700 b-f
N10051ol	1.0	0.8	91 a-f	7.9	42 a-c	1.7	2.6	2.7	65 a-i	72 c-f	17.05 a-e	4458 a-f	761 a-d
N10053ol	0.6	0.6	92 a-f	7.8	33 e-k	4.0	1.5	4.1	62 f-k	72 c-g	16.17 a-g	3707 c-i	599 c-g
N10061olFCLSm	1.3	1.7	88 c-g	8.0	33 e-k	1.6	3.4	1.5	63 b-k	70 fg	16.71 a-f	3404 e-i	569 c-g
N10066olSmT	1.0	0.9	87 e-h	8.1	28 k-m	0.9	4.1	2.1	62 e-k	70 e-g	16.09 a-h	3409 e-i	549 d-g
N10070olCLSmT	0.9	1.2	92 a-f	7.8	33 e-k	1.8	1.7	1.6	65 a-h	72 c-g	17.15 a-e	3476 d-i	597 c-g
N10078olJC	0.8	0.8	86 f-i	8.6	29 i-m	0.9	4.3	4.1	62 d-k	72 c-g	15.88 b-i	3624 d-i	575 c-g
N10080olJCL	1.4	0.7	89 b-g	7.5	30 h-k	3.0	2.4	3.0	63 c-k	72 c-f	16.23 a-g	3326 e-i	541 e-g
N10082olJC	0.7	0.8	91 a-f	7.9	35 d-j	1.5	2.0	3.8	67 a-c	73 bc	17.24 a-e	3625 d-i	625 c-g
N11019olJ	1.0	1.2	93 a-d	7.4	35 c-i	1.1	2.2	4.4	67 ab	71 c-g	15.97 a-i	3179 g-i	510 fg
N11020olJ	0.7	0.6	94 ab	7.8	44 ab	1.5	1.9	2.1	66 a-f	71 c-g	17.38 a-c	5186 ab	902 ab
N11024ol	0.7	0.8	92 a-f	7.4	37 c-g	1.9	2.8	4.6	62 d-k	72 c-g	15.80 d-i	3756 c-i	594 c-g
N11028ol	1.1	0.9	88 d-g	7.5	35 c-i	3.2	2.5	5.4	60 k	71 c-g	14.58 hi	4923 a-c	720 a-f
N11034ol	1.7	1.6	80 j	7.7	28 j-m	2.2	2.6	2.8	64 b-j	72 c-f	16.77 a-f	4638 a-d	781 a-c
N11039olFSr	0.9	1.0	85 g-j	7.6	30 h-k	3.1	2.9	6.1	61 i-k	73 bc	14.47 i	3279 f-i	476 gh
N11048ol	0.9	1.3	92 a-e	8.1	39 b-e	2.3	2.7	3.9	62 d-k	71 c-g	15.74 e-i	3563 d-i	570 c-g
N11051olJ	0.8	1.0	88 c-g	7.5	38 b-f	1.6	2.4	4.3	64 b-j	72 c-f	16.12 a-g	2970 hi	478 gh
SPT 10-05	1.2	1.3	86 f-i	8.1	32 f-k	1.9	3.8	2.1	64 b-k	72 c-g	16.77 a-f	3309 e-i	564 c-g
SPT 10-12ol	1.2	1.2	56 l	7.7	22 mn	1.9	4.8	2.5	61 jk	70 d-g	15.91 b-i	3671 d-i	587 c-g
SPT 10-14ol	3.3	1.7	61 l	8.1	15 o	2.0	3.5	13.7	54 l	73 b-d	9.25 j	2903 i	265 h
Mean	**1.2**	**1.0**	**84**	**7.8**	**34**	**2.0**	**2.6**	**3.5**	**64**	**72**	**16.26**	**3846**	**628**
LSD $_{0.05}$[3]	**0.8**	**0.7**	**6**	**0.9**	**7**	**1.5**	**1.5**	**3.1**	**4**	**3**	**0.02**	**1220**	**219**

[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 protected LSD test.
[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

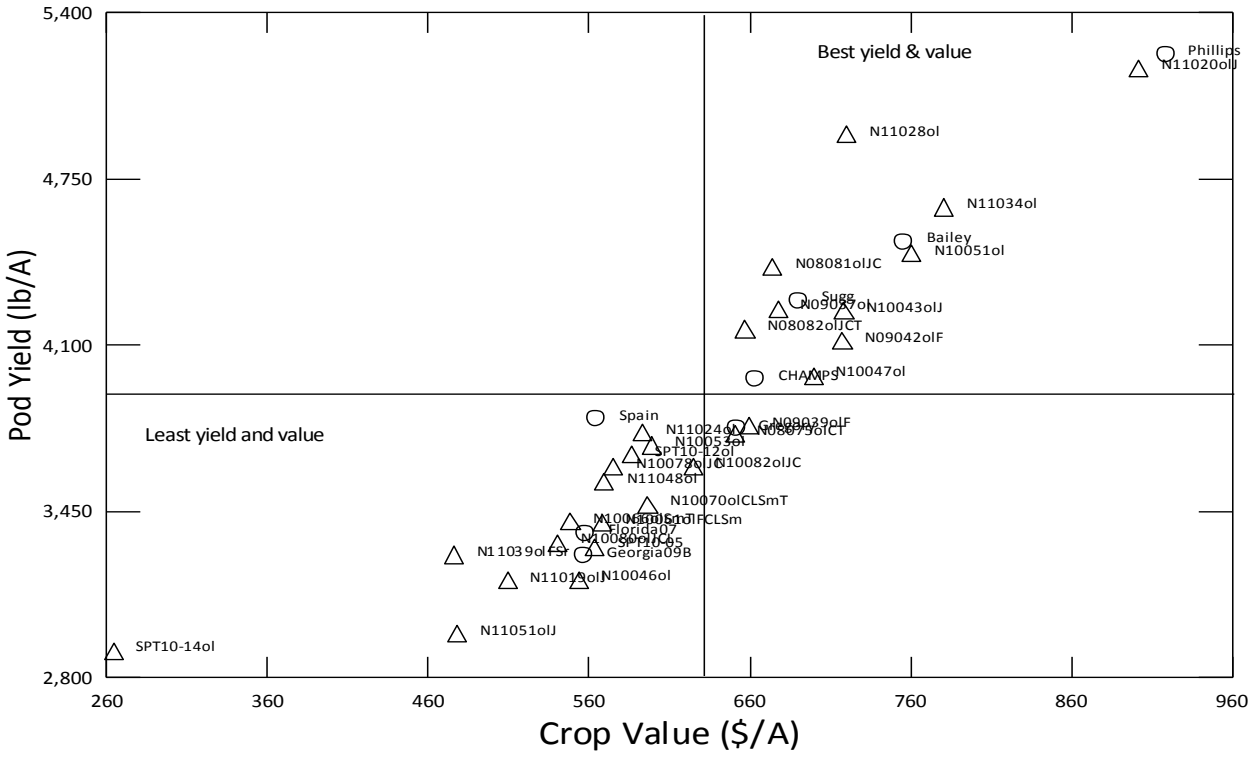

Figure 14. Summary of pod yield and crop value at Martin Co., NC, Digging Date II in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2013 Results by Location

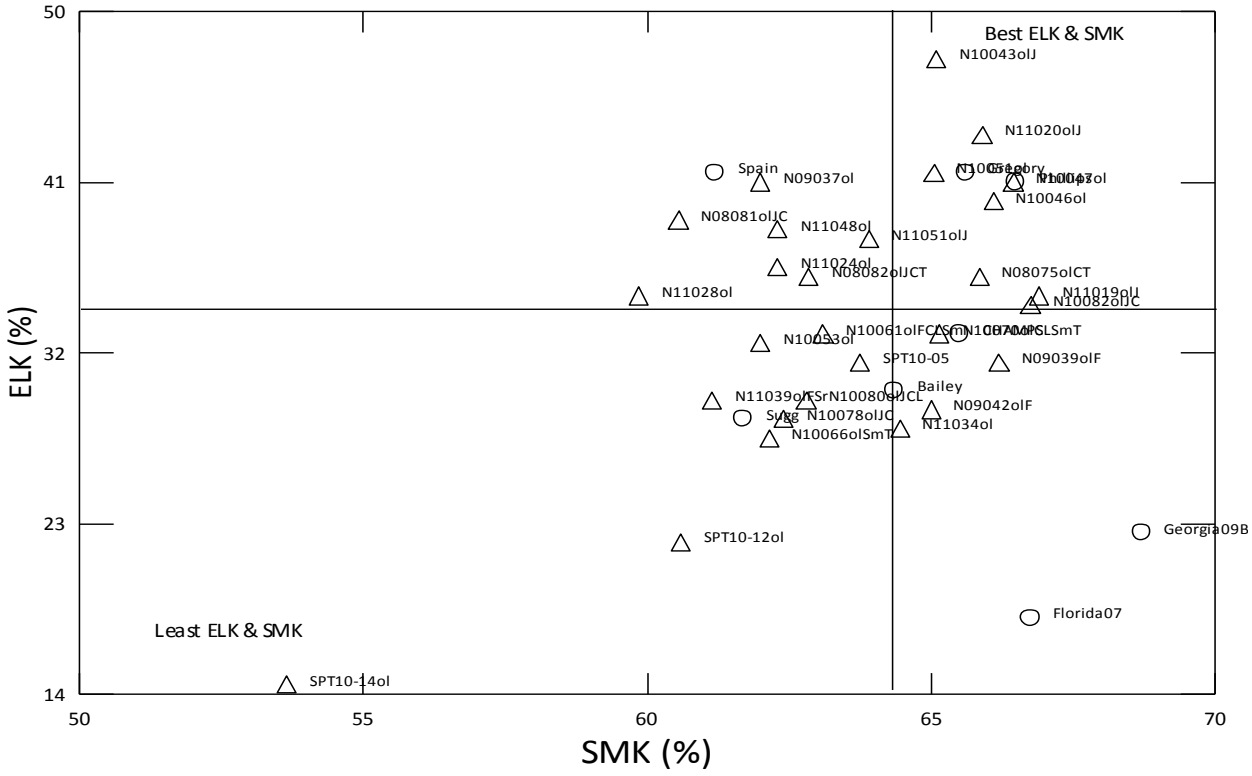

Figure 15. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Martin Co., NC, Digging Date II in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

2013 Results by Location

Table 23. Performance of genotypes at Rocky Mount, NC, in 2013. Averages of three replicated plots planted on 10 May, dug on 26 September, and combined on 2 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.4	1.0	93 a-d	6.0	53 a-e	3.0	1.8	1.7	65 c-h	72 kl	17.82 a-g	6319 a-e	1128 a-c
CHAMPS	0.2	1.1	86 d-i	6.1	45 g-l	2.1	1.6	2.3	68 a	74 b-e	18.02 a-f	5392 e-l	971 b-g
Phillips	0.3	0.7	86 d-i	6.3	55 a-d	3.0	1.0	2.4	68 a-c	74 b-d	18.31 a-c	5366 f-l	985 b-f
Bailey	0.3	1.2	80 ij	6.0	44 i-m	3.3	1.7	1.3	67 a-g	73 d-k	18.12 a-e	6238 a-g	1130 a-c
Sugg	0.2	1.6	84 e-j	6.1	41 k-n	2.7	2.3	4.1	64 h-k	73 f-l	16.67 hi	5930 a-i	989 b-f
Georgia 09B	0.4	1.0	51 l	6.1	28 o	3.0	3.6	0.9	68 ab	76 ab	17.49 a-h	4720 kl	825 f-h
Florida 07	0.2	1.6	20 m	6.1	25 o	3.5	2.5	1.8	69 a	76 a	17.47 a-h	5266 h-l	921 d-g
Sullivan	0.1	1.2	87 c-i	6.1	46 f-l	2.7	2.2	2.2	64 g-i	71 lm	17.21 d-h	5471 c-l	941 c-g
Wynne	0.5	1.2	93 a-d	6.2	54 a-d	2.6	1.7	1.2	67 a-e	73 e-k	18.28 a-d	6397 a-c	1170 ab
N08082olJCT	0.2	1.2	94 a-c	6.1	51 b-g	4.1	1.5	3.6	63 h-k	72 h-l	17.09 e-h	6110 a-h	1044 a-e
Spain	0.2	1.3	90 a-e	6.4	48 d-j	2.7	1.4	5.5	59 l	69 n	14.65 j	5332 g-l	784 gh
N09037ol	0.2	1.2	91 a-d	6.1	49 d-i	5.1	1.5	1.7	65 e-h	73 e-k	18.04 a-f	5581 b-l	1007 a-f
N09039olF	0.2	0.8	86 d-i	6.1	40 l-n	3.9	1.2	1.3	67 a-g	73 d-k	18.14 a-e	6164 a-h	1117 a-d
N09042olF	0.3	1.0	78 j	6.2	42 j-m	4.6	1.8	1.4	65 b-h	73 d-k	18.01 a-f	6040 a-i	1088 a-d
N10043olJ	0.4	1.6	96 ab	6.1	58 ab	2.3	1.3	0.9	68 a-d	72 h-l	18.39 ab	5794 a-i	1066 a-d
N10046ol	0.2	1.1	93 a-d	6.1	57 a-c	2.1	1.5	1.9	68 a	74 c-f	18.33 ab	6130 a-h	1124 a-c
N10047ol	0.2	1.1	92 a-d	6.1	53 a-e	2.6	1.7	2.6	67 a-g	73 c-h	17.80 a-g	6290 a-f	1119 a-d
N10051ol	0.3	0.8	94 a-c	6.1	47 e-l	2.3	1.5	1.9	67 a-g	72 f-l	17.84 a-g	5663 b-k	1011 a-f
N10053ol	0.1	0.8	88 c-h	6.2	45 g-m	6.1	1.5	1.9	63 h-k	73 e-k	17.84 a-g	5604 b-l	1000 a-f
N10061olFCLSm	0.3	1.2	90 a-e	6.1	53 a-e	1.9	1.9	0.8	69 a	73 c-j	18.52 a	5773 a-i	1069 a-d
N10066olSmT	0.2	1.1	92 a-d	6.1	51 b-g	2.6	1.7	1.6	67 a-f	73 d-k	18.07 a-e	5849 a-i	1057 a-d
N10070olCLSmT	0.3	1.6	89 c-g	6.2	47 e-l	2.9	1.2	1.5	67 a-g	73 f-l	18.06 a-f	5500 c-l	993 a-f
N10078olJC	0.2	1.3	87 c-h	6.1	47 e-k	3.6	1.5	3.9	65 e-h	74 c-g	17.23 c-h	5945 a-i	1028 a-e
N10080olJCL	0.3	1.1	89 b-f	6.1	53 a-f	3.0	1.1	4.7	65 d-h	74 c-f	16.53 hi	6110 a-h	1016 a-f
N10082olJC	0.2	1.6	91 a-d	6.0	50 d-i	3.0	1.4	3.5	65 b-h	73 c-j	17.39 b-h	5442 d-l	947 c-g
N11019olJ	0.3	1.0	94 a-c	6.0	55 a-d	2.7	1.4	2.0	67 a-e	73 c-i	18.19 a-d	5962 a-i	1085 a-d
N11020olJ	0.2	1.3	97 a	6.1	59 a	2.3	0.9	1.9	68 a-d	73 e-k	18.33 ab	6486 ab	1189 a
N11024ol	0.0	1.6	91 a-e	6.1	48 d-j	4.1	1.5	5.0	62 i-l	72 g-l	15.90 i	6011 a-i	956 c-g
N11028ol	0.2	1.5	90 a-e	5.9	44 h-m	5.7	1.4	3.5	61 j-l	72 i-l	16.98 f-i	6614 a	1123 a-c
N11034ol	0.3	1.5	81 h-j	5.9	35 n	3.5	1.8	2.1	65 b-h	73 e-k	17.56 a-h	6367 a-d	1119 a-d
N11039olFSr	0.2	0.8	82 f-j	6.2	41 k-n	6.2	1.5	3.7	63 h-k	75 bc	17.41 b-h	5687 a-j	990 a-f
N11048ol	0.3	1.5	93 a-c	6.2	51 c-h	2.4	1.8	3.2	65 e-h	72 j-l	17.09 e-h	4785 j-l	819 f-h
N11051olJ	0.3	1.3	91 a-e	6.1	51 b-g	4.8	1.6	3.8	63 h-k	73 d-k	16.92 g-i	6011 a-i	1014 a-f
SPT 10-05	0.2	1.8	82 g-j	6.3	38 mn	2.7	3.7	1.3	64 f-i	72 h-l	17.52 a-h	4671 l	819 f-h
SPT 10-12ol	0.3	2.1	54 kl	6.2	24 o	3.8	3.6	1.3	61 kl	70 m	16.69 hi	5124 i-l	855 e-h
SPT 10-14ol	0.2	1.6	60 k	6.2	26 o	2.6	3.1	7.1	59 l	72 g-l	12.98 k	5270 h-l	687 h
Mean	**0.2**	**1.2**	**84**	**6.1**	**46**	**3.3**	**1.8**	**2.5**	**65**	**73**	**17.41**	**5761**	**1005**
LSD $_{0.05}$[3]	**0.3**	**0.6**	**7**	**0.3**	**7**	**1.8**	**0.7**	**1.6**	**3**	**1**	**0.01**	**947**	**199**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

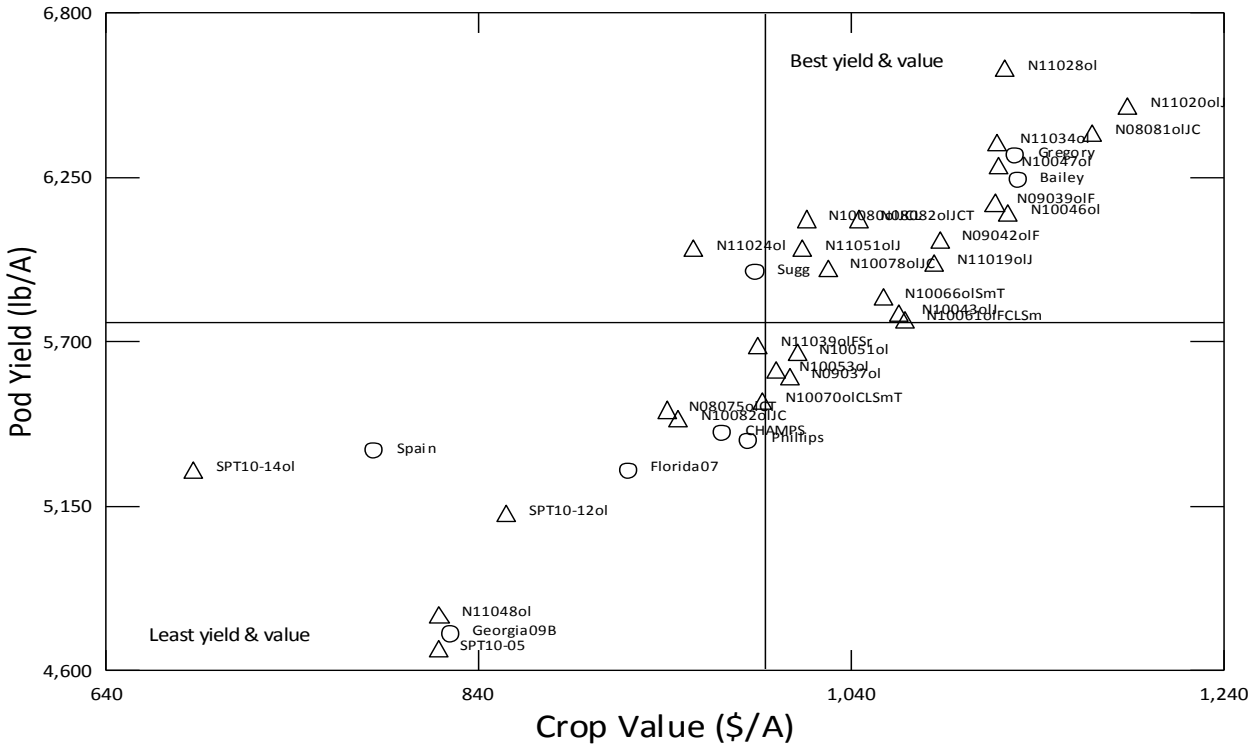

Figure 16. Summary of pod yield and crop value at Rocky Mount, NC, in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location.

2013 Results by Location

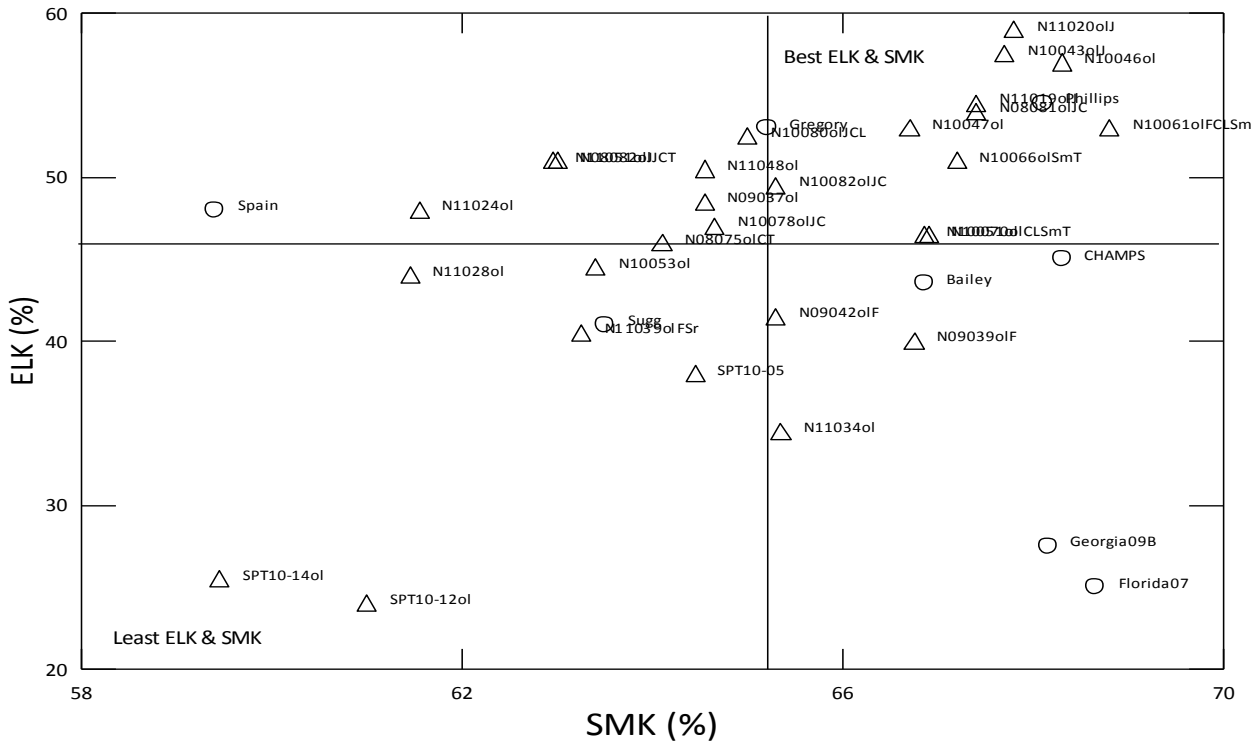

Figure 17. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Rocky Mount, NC in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location.

2013 Results by Location

Table 24. Performance of genotypes at Bladen County, NC, in 2013. Averages of three replicated plots planted on 14 May, dug on 26 September, and combined on 1 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
CHAMPS	0.3	1.8	88 d-g	7.9	49 f-l	1.2	0.7	2.7	70 b-e	75 d-g	18.27 b-g	4508 a-f	824 a-d
Phillips	0.2	1.6	86 fg	7.2	51 d-i	2.0	1.0	1.5	69 b-g	74 h-m	18.45 a-g	4277 a-i	790 a-f
Bailey	0.3	1.4	84 g	7.8	48 h-l	1.6	1.1	1.6	69 b-g	74 h-m	18.26 b-g	4146 b-k	757 b-h
Sugg	0.2	1.3	90 c-f	8.6	48 g-l	1.5	1.4	4.3	67 f-k	74 e-i	17.37 h-k	3882 g-m	674 f-j
Georgia 09B	0.2	1.5	50 j	8.3	35 o	0.5	1.4	1.6	74 a	78 a	18.10 b-h	3745 i-o	678 e-j
Florida 07	0.2	1.2	28 k	8.2	29 p	1.8	1.8	1.7	72 ab	77 ab	17.78 e-i	3544 l-o	631 i-k
Sullivan	0.2	1.0	90 c-f	8.0	55 a-e	1.5	0.9	1.6	70 b-f	74 g-l	18.58 a-f	4661 a-c	867 ab
Wynne	0.1	1.2	92 b-e	8.2	55 a-d	2.5	0.8	1.9	69 b-g	74 g-m	18.52 a-g	4685 ab	869 ab
N08082olJCT	0.3	1.2	95 a-c	8.2	53 b-f	1.4	0.6	3.5	68 d-i	73 i-m	17.68 g-j	4729 ab	836 a-c
Spain	0.1	1.1	96 ab	11.8	45 lm	0.4	0.8	13.7	54 n	69 q	9.29 o	3287 no	306 m
N09037ol	0.1	1.0	92 b-e	7.5	55 a-e	2.8	0.7	1.4	70 b-g	74 e-i	18.81 a-c	4090 c-l	769 b-g
N09039olF	0.6	0.8	88 d-g	8.6	38 no	1.3	0.8	0.8	71 bc	74 g-l	18.60 a-e	4411 a-g	821 a-d
N09042olF	0.3	1.8	76 h	8.7	38 no	2.6	1.4	2.4	68 e-j	74 f-k	17.85 d-i	4657 a-c	832 a-c
N10043olJ	0.2	0.8	95 a-c	7.8	57 ab	1.7	0.8	1.4	69 b-g	73 mn	18.50 a-g	4518 a-f	836 a-c
N10046ol	0.3	1.1	95 a-c	7.1	59 a	2.3	0.5	1.7	70 b-e	75 d-f	18.88 ab	4774 a	901 a
N10047ol	1.3	1.4	92 a-e	8.1	57 ab	2.6	0.7	2.7	68 f-i	74 e-j	18.17 b-h	4335 a-h	790 a-f
N10051ol	0.2	0.9	90 c-f	7.6	49 f-l	1.7	0.9	2.5	69 b-g	74 f-k	18.11 b-h	4408 a-g	799 a-e
N10053ol	0.2	1.7	93 a-d	7.1	46 j-l	3.9	0.9	3.8	64 lm	73 mn	16.89 j-m	4571 a-e	771 b-g
N10061olFCLSm	0.6	1.4	88 d-g	8.1	53 b-f	2.4	1.1	0.6	72 ab	76 cd	19.25 a	3988 e-m	768 b-g
N10066olSmT	0.3	1.5	94 a-c	7.1	53 b-f	1.8	0.8	1.3	70 b-f	74 g-l	18.67 a-d	4441 a-g	829 a-d
N10070olCLSmT	0.2	1.1	91 c-f	7.5	52 c-h	1.6	0.9	0.8	70 b-e	74 h-m	18.73 a-c	4068 d-m	762 b-h
N10078olJC	0.2	1.1	88 d-g	8.5	53 b-g	1.8	1.3	3.4	68 d-i	74 e-j	17.75 f-i	3905 g-m	693 e-j
N10080olJCL	0.1	1.6	93 a-d	7.9	53 b-g	1.7	1.1	3.8	68 d-i	75 d-h	17.77 e-i	3675 j-o	653 g-j
N10082olJC	0.3	2.2	95 a-c	7.9	50 e-j	1.9	0.7	0.7	66 h-l	73 k-n	16.38 m	3203 o	526 kl
N11019olJ	0.1	1.4	95 a-c	7.4	55 a-d	0.6	1.0	1.4	71 b-d	74 h-m	18.56 a-f	3804 h-n	707 d-i
N11020olJ	0.1	1.0	97 a	7.9	57 ab	1.2	0.8	1.6	69 b-g	72 no	18.15 b-h	4256 a-j	774 b-g
N11024ol	0.1	1.2	95 a-c	7.4	53 b-g	2.6	0.7	4.8	65 j-m	73 l-n	16.74 k-m	4449 a-g	745 c-i
N11028ol	0.2	1.0	92 a-e	7.8	50 f-k	2.3	0.9	4.8	65 i-l	73 j-n	16.37 m	4689 ab	768 b-g
N11034ol	0.2	1.1	78 h	7.7	41 mn	2.9	1.3	2.0	69 b-g	75 de	18.40 b-g	4075 c-m	750 b-i
N11039olFSr	0.3	0.6	87 e-g	7.7	47 i-l	2.8	1.0	3.9	69 b-g	76 bc	18.02 c-i	3971 f-m	716 c-i
N11048ol	0.4	1.3	95 a-c	8.0	56 a-c	2.0	1.2	3.7	67 g-l	74 h-m	17.26 i-l	3697 i-o	642 h-k
N11051olJ	0.4	1.4	91 b-e	8.0	53 b-g	4.1	0.8	3.9	66 h-l	74 e-j	17.37 h-k	4595 a-d	799 a-e
SPT 10-05	0.1	1.1	91 c-f	8.3	45 k-m	1.5	1.4	1.7	69 b-g	74 g-l	18.29 b-g	3589 k-o	657 g-j
SPT 10-12ol	0.2	1.2	61 i	11.9	34 o	0.8	2.3	3.3	65 k-m	71 p	16.43 lm	3501 m-o	575 j-l
SPT 10-14ol	0.3	1.5	62 i	7.1	28 p	3.0	1.6	8.4	62 m	75 de	12.71 n	3748 h-o	476 l
Mean	**0.2**	**1.2**	**86**	**8.1**	**49**	**1.9**	**1.0**	**2.9**	**68**	**74**	**17.58**	**4141**	**732**
LSD $_{0.05}$[3]	**0.6**	**1.0**	**5**	**1.6**	**5**	**2.1**	**0.6**	**1.3**	**3**	**1**	**0.01**	**587**	**122**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

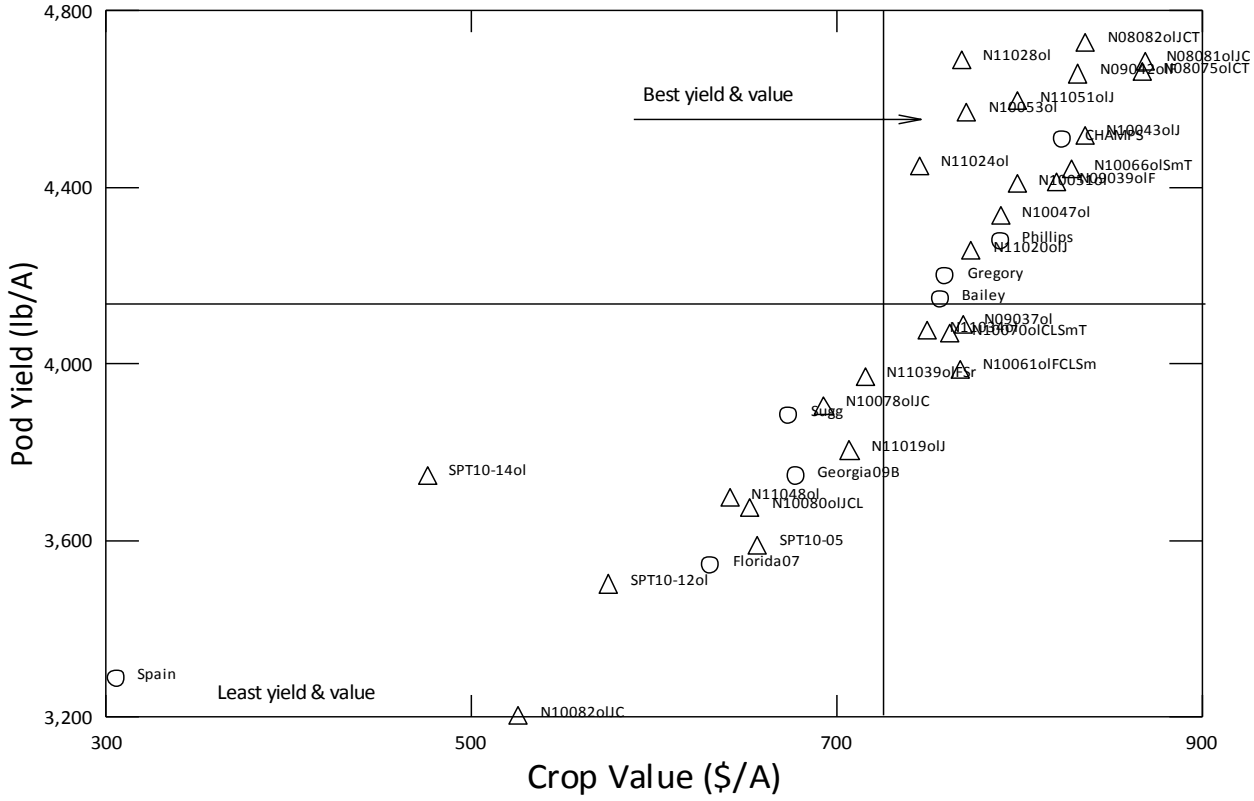

Figure 18. Summary of pod yield and crop value at Bladen Co., NC, in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location.

2013 Results by Location

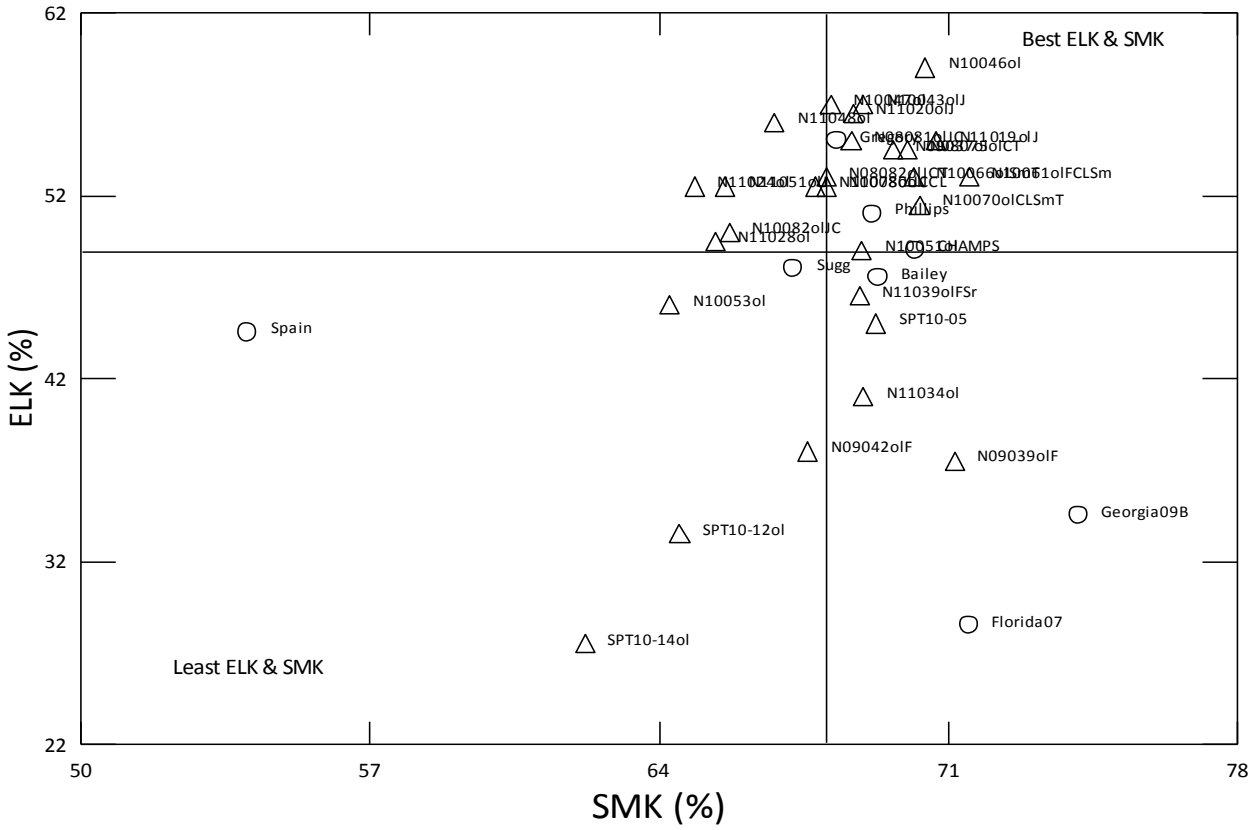

Figure 19. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Bladen, NC, in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location.

2013 Results by Location

Table 25. Performance of genotypes at Blackville, SC, in 2013. Averages of four replicated plots planted on 11 May, dug on 27 September, and combined on 3 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
N10047ol	0.3	1.5	83 a-f	5.2	44 ab	6.9	2.2	2.3	63 c-f	74 d-f	17.59 a-d	3674 a-d	678 a-c
N10078olJC	0.3	2.0	78 d-k	5.3	39 b-g	6.4	2.3	3.3	62 c-g	74 d-i	17.08 b-h	3286 b-f	563 b-h
N11024ol	0.3	1.5	86 a-d	5.3	34 g-j	7.7	2.8	3.4	58 hi	72 l-n	16.36 f-k	3603 a-e	582 b-h
N10046ol	0.7	1.4	82 a-h	5.3	44 ab	6.7	1.9	2.0	64 bc	74 de	18.03 ab	3531 a-f	620 a-g
N10070olCLSmT	0.5	1.8	75 f-l	5.3	35 e-h	4.4	2.7	2.6	63 b-d	73 f-n	17.19 b-g	2866 f	489 gh
N10053ol	0.7	0.9	81 b-i	5.3	37 c-h	8.6	1.6	1.8	61 c-g	73 d-j	17.65 a-c	3135 c-f	564 b-h
N10082olJC	0.5	1.8	79 c-j	5.3	39 b-g	7.6	2.2	2.4	62 c-g	74 d-f	17.20 b-g	3235 c-f	560 c-h
N11020olJ	0.5	1.8	88 ab	5.3	42 a-c	7.3	1.8	2.2	60 d-h	72 mn	16.78 c-j	3073 d-f	518 e-h
N10080olJCL	0.6	1.8	73 i-l	5.2	35 d-h	7.0	2.6	3.1	60 e-h	73 f-n	16.29 g-k	3356 b-f	550 c-h
Wynne	0.7	1.9	88 a-c	5.3	39 b-g	7.7	2.1	3.1	60 f-i	73 f-n	16.86 c-j	3272 b-f	553 c-h
N08082olJCT	0.9	1.8	83 a-g	5.3	36 d-h	6.3	2.4	3.2	60 d-h	72 h-n	16.85 c-j	3936 ab	670 a-d
N11039olFSr	0.4	1.3	68 l	5.4	36 d-h	8.5	2.3	2.3	61 c-g	75 cd	17.65 a-c	3176 c-f	563 b-h
SPT 10-14ol	1.1	1.9	37 p	5.4	23 l-n	6.1	3.0	2.4	62 c-f	74 d-g	17.27 a-g	2972 ef	514 e-h
N10066olSmT	0.7	2.1	77 e-l	5.3	35 e-h	5.3	2.8	2.5	61 c-g	72 k-n	16.92 b-i	2943 ef	498 f-h
N11028ol	1.1	1.4	74 h-l	5.2	32 h-k	7.9	3.1	4.3	57 i	72 j-n	15.50 k	3126 c-f	492 gh
N09042olF	0.5	1.4	41 n-p	5.4	22 mn	6.6	2.5	2.4	62 c-g	74 d-h	17.13 b-h	3519 a-f	599 a-h
SPT 10-12ol	0.3	3.1	46 no	5.4	21 n	8.5	4.5	2.2	54 j	69 o	15.77 jk	3369 b-f	531 e-h
N11034ol	0.5	1.6	56 m	5.2	28 j-l	6.5	2.8	2.2	62 c-g	73 d-j	17.37 a-g	3051 d-f	530 e-h
N11048ol	0.5	2.4	85 a-d	5.3	40 b-f	6.0	2.6	3.5	59 g-i	71 n	16.38 e-k	2860 f	469 h
N11051olJ	0.3	1.4	83 a-g	5.3	41 b-e	7.5	2.4	3.2	59 g-i	72 g-n	16.83 c-h	3433 a-f	572 b-h
N11019olJ	0.8	1.2	84 a-e	5.3	40 b-f	5.2	2.5	2.0	64 bc	74 d-h	17.77 a-c	2964 ef	530 e-h
N10051ol	0.2	0.6	78 d-j	5.3	38 c-h	5.6	2.5	2.0	63 c-f	73 f-n	16.83 c-j	3341 b-f	583 b-h
N10043olJ	0.3	1.8	90 a	5.3	43 a-c	6.1	2.1	1.6	62 c-g	72 i-n	17.69 a-c	3279 b-f	582 b-h
N09037ol	0.4	1.5	84 a-e	5.4	41 b-d	7.3	2.1	2.0	62 c-g	73 d-k	17.71 a-c	3528 a-f	628 a-f
Sullivan	0.3	2.9	79 d-j	5.3	35 d-h	7.3	2.6	2.2	60 d-h	72 j-n	17.01 b-h	3192 c-f	540 d-h
N09039olF	0.5	1.8	56 m	5.4	18 n	5.3	3.4	3.4	61 d-h	73 f-m	16.06 h-k	3688 a-d	578 b-h
N10061olFCLSm	0.7	1.6	69 l	5.3	34 f-i	6.3	3.4	1.5	61 c-g	72 g-n	17.43 a-f	2973 ef	519 e-h
SPT 10-05	0.3	2.2	72 j-l	5.5	27 k-m	6.1	3.3	0.8	62 c-g	72 j-n	17.46 a-f	3395 b-f	602 a-g
Georgia 06G	1.0	1.4	48 mn	5.3	32 h-k	8.2	2.5	0.7	67 a	78 a	18.35 a	3765 a-c	693 ab
Georgia 11J	0.4	3.8	89 ab	5.2	48 a	4.6	1.9	2.7	62 c-f	72 l-n	15.88 i-k	3572 a-e	571 b-h
Georgia 07W	1.0	1.5	39 op	5.3	21 n	11.2	2.7	2.0	61 c-g	77 ab	17.49 a-e	3611 a-e	633 a-e
Bailey	0.3	1.2	69 kl	5.3	33 h-k	6.5	2.6	1.8	63 b-e	74 d-f	17.77 a-c	4089 a	726 a
NC-V 11	0.3	1.3	74 g-l	5.3	29 i-l	6.7	3.1	2.7	61 d-h	73 e-l	16.86 c-j	3720 a-d	629 a-e
Georgia 12Y	1.2	1.6	2 r	5.4	20 n	6.4	3.2	0.8	66 ab	76 b	17.67 a-c	3336 b-f	591 b-h
TufRunner	1.8	1.8	17 q	5.4	23 l-n	8.6	3.8	2.8	61 d-h	76 bc	16.51 d-k	2960 ef	489 gh
Mean	**0.6**	**1.7**	**69**	**5.3**	**34**	**6.9**	**2.6**	**2.4**	**61**	**73**	**17.08**	**3324**	**569**
LSD $_{0.05}$[3]	**0.5**	**0.9**	**9**	**0.1**	**6**	**1.9**	**0.9**	**1.4**	**3**	**1**	**0.01**	**678**	**131**

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

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

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results by Location

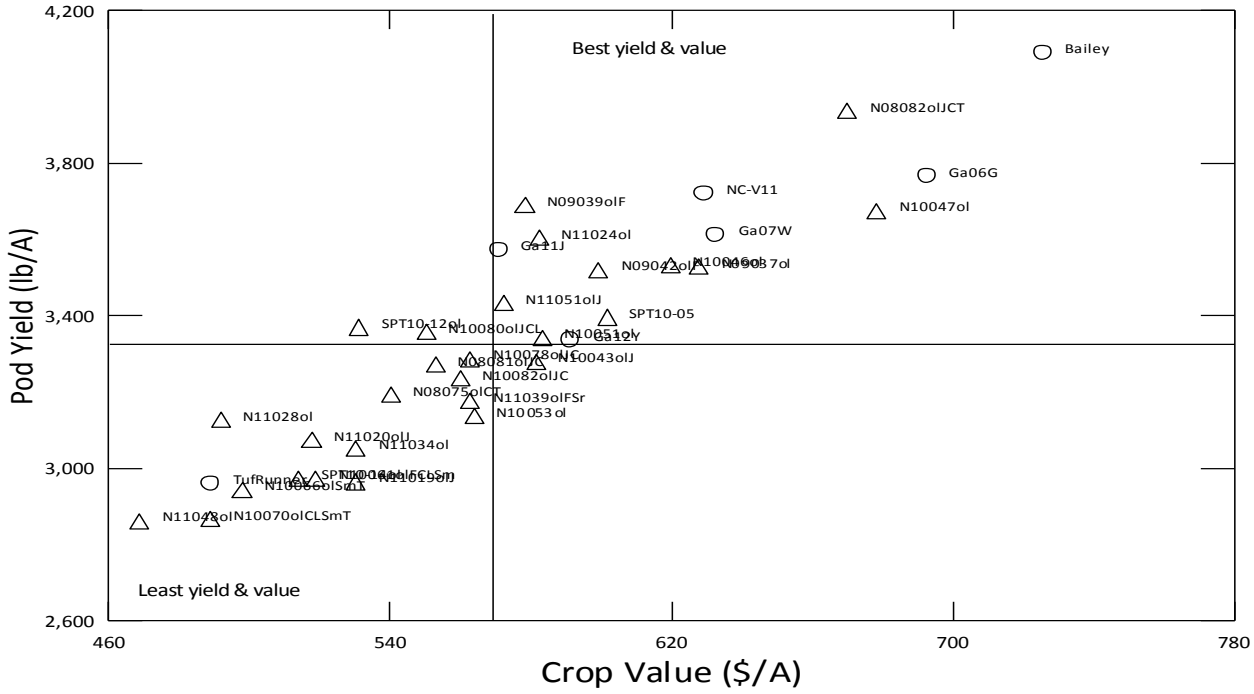

Figure 20. Summary of pod yield and crop value at Blackville, SC, in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 35 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location.

2013 Results by Location

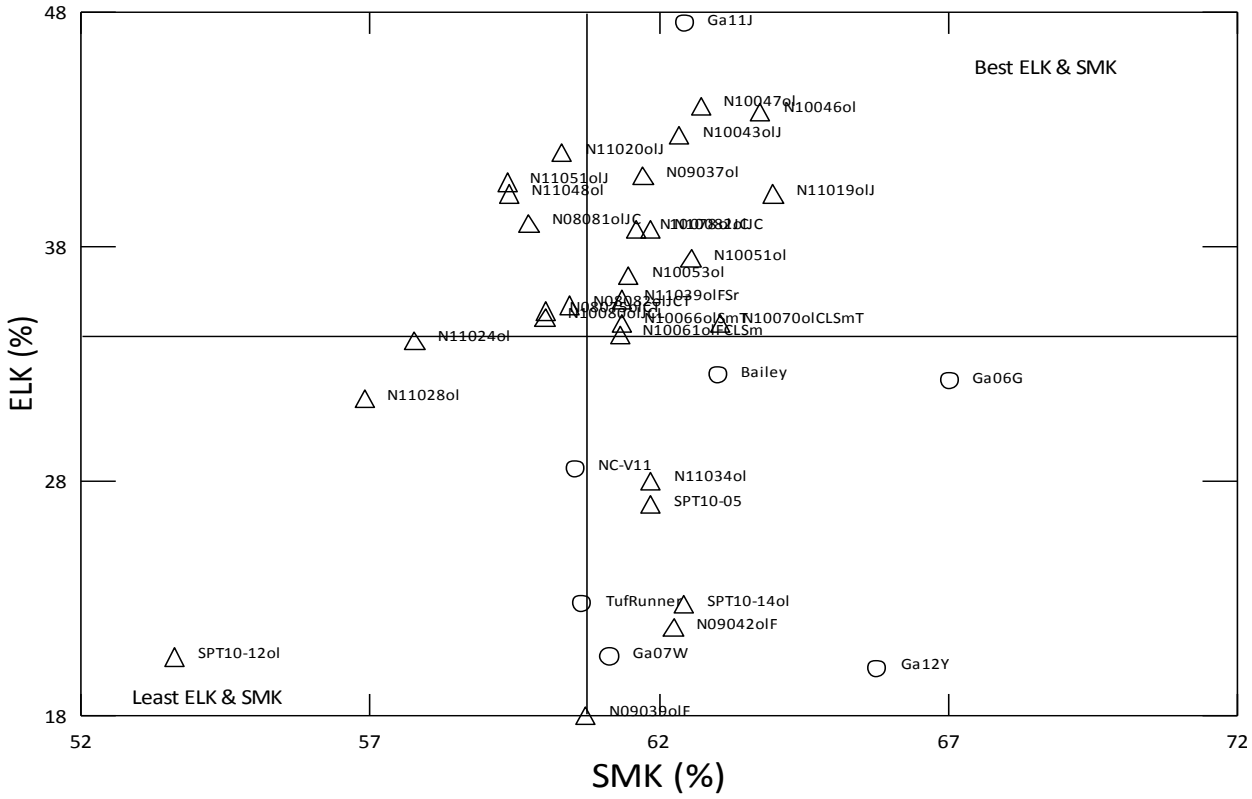

Figure 21. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Blackville, SC, in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 35 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location.

2013 Results across Locations

Table 26. Performance of genotypes averaged across test locations in 2013.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.7	1.1	94 a	7.1	47 a	1.5	2.0	2.1	65 b-f	70 f	17.09 a-e	4767 a-e	816 a-d
CHAMPS	0.5	1.5	87 j-l	7.0	39 c-f	1.5	2.7	2.9	65 a-c	72 cd	16.96 a-e	4774 a-e	812 a-e
Phillips	0.4	0.9	88 c-g	6.9	47 ab	1.8	2.0	1.9	67 ab	73 cd	17.77 a	5036 a	898 a
Bailey	0.4	1.0	80 jk	6.5	37 d-h	3.1	2.8	1.8	65 b-e	72 cd	17.43 a-d	4931 ab	860 ab
Sugg	0.5	1.1	86 e-h	7.1	38 d-h	1.1	3.4	3.2	64 c-g	72 c-e	16.69 b-f	4926 ab	825 a-c
Georgia 09B	1.4	1.2	54 n	7.0	27 jk	1.4	3.8	1.9	68 a	75 ab	16.90 a-e	4244 b-f	718 c-g
Florida 07	0.6	1.2	23 o	7.1	21 k	2.0	4.8	2.7	66 a-c	76 a	15.71 f-h	4436 a-f	698 c-g
Sullivan	0.3	1.6	85 f-i	6.7	41 a-f	3.0	2.9	2.0	64 c-g	71 d-f	17.11 a-e	4488 a-f	769 a-f
Wynne	0.7	1.3	92 a-c	6.6	43 a-e	3.4	2.6	2.9	62 d-h	71 d-f	16.71 a-e	4666 a-f	783 a-f
N08082olJCT	0.8	1.2	91 a-d	6.8	40 a-f	3.2	2.4	3.4	62 e-i	71 d-f	16.46 c-g	4900 ab	805 a-e
Spain	0.6	1.1	93 ab	8.2	38 d-h	1.1	2.5	10.6	53 l	68 g	10.65 j	4463 a-f	475 h
N09037ol	0.4	1.1	90 a-e	6.6	44 a-d	3.9	2.2	2.4	63 c-g	72 d-f	17.22 a-e	4723 a-f	810 a-e
N09039olF	0.6	1.2	78 kl	6.8	30 ij	2.4	3.3	2.0	64 c-g	72 d-f	16.86 a-e	4679 a-f	793 a-f
N09042olF	0.7	1.1	67 m	6.8	32 h-j	3.8	2.9	2.0	64 c-g	72 cd	17.24 a-e	4786 a-e	826 a-c
N10043olJ	0.6	1.3	94 a	6.6	46 ab	1.5	2.1	2.2	64 c-g	71 ef	17.12 a-e	4309 a-f	739 b-f
N10046ol	0.6	1.1	90 a-f	6.6	46 a-c	2.6	2.1	2.0	65 b-d	72 cd	17.51 ab	4541 a-f	792 a-f
N10047ol	0.6	1.2	89 b-f	6.7	46 a-c	3.1	2.4	2.8	64 b-f	73 cd	17.12 a-e	4610 a-f	795 a-f
N10051ol	0.4	0.8	88 c-g	6.9	42 a-e	2.5	2.5	2.3	64 b-g	71 d-f	17.09 a-e	4681 a-f	799 a-e
N10053ol	0.4	0.9	88 c-g	6.4	39 d-g	5.0	2.3	2.4	62 f-i	72 d-f	16.97 a-e	4484 a-f	764 a-f
N10061olFCLSm	0.7	1.3	83 h-j	6.6	39 c-f	2.9	3.2	1.2	64 b-f	72 d-f	17.47 a-c	4117 d-f	725 b-g
N10066olSmT	0.5	1.4	87 d-h	6.6	39 c-f	2.3	2.9	1.8	64 c-g	71 d-f	17.08 a-e	4253 b-f	733 b-f
N10070olCLSmT	0.4	1.4	86 e-h	6.7	37 d-h	2.4	3.1	1.8	64 c-g	71 d-f	17.09 a-e	4207 b-f	722 c-g
N10078olJC	0.4	1.3	86 e-h	6.8	38 d-h	3.1	3.3	3.4	62 e-i	72 c-e	16.53 b-f	4326 a-f	717 c-g
N10080olJCL	0.5	1.4	86 e-h	6.6	38 d-g	3.3	3.1	3.3	62 e-i	72 d-f	16.32 e-g	4556 a-f	751 b-f
N10082olJC	0.4	1.5	89 b-f	6.7	40 b-f	3.3	2.4	2.8	64 c-g	72 cd	16.89 a-e	4389 a-f	744 b-f
N11019olJ	0.6	1.2	92 a-c	6.5	41 a-f	2.0	3.0	2.3	65 b-f	71 d-f	17.02 a-e	4012 f	686 d-g
N11020olJ	0.4	1.2	94 a	6.7	46 a-c	2.9	2.0	2.3	63 c-g	71 ef	16.92 a-e	4816 a-d	817 a-d
N11024ol	0.3	1.2	91 a-d	6.6	40 b-f	4.1	2.7	4.3	60 h-j	71 d-f	15.75 f-h	4520 a-f	708 c-g
N11028ol	0.7	1.2	85 f-i	6.5	37 f-i	4.3	2.8	4.3	60 ij	71 d-f	15.49 gh	4860 a-c	756 b-f
N11034ol	0.6	1.3	74 l	6.6	32 h-j	3.4	2.9	1.9	64 b-g	72 cd	17.27 a-e	4585 a-f	792 a-f
N11039olFSr	0.6	1.0	81 i-k	6.6	35 f-i	4.6	3.0	3.8	62 e-i	74 bc	16.44 d-g	4160 c-f	682 d-g
N11048ol	0.5	1.5	91 a-d	6.8	42 a-e	2.9	2.8	3.1	62 e-i	71 d-f	16.45 d-g	4093 d-f	678 e-g
N11051olJ	0.5	1.1	89 b-f	6.7	43 a-e	3.9	2.4	3.6	62 f-i	72 d-f	16.42 d-g	4529 a-f	743 b-f
SPT 10-05	0.4	1.9	84 g-j	7.1	32 g-j	2.6	5.0	1.8	62 g-i	71 d-f	16.49 b-g	4017 f	659 fg
SPT 10-12ol	0.5	1.7	54 n	7.4	22 k	3.4	5.8	2.8	56 kl	68 g	14.97 h	4012 f	597 gh
SPT 10-14ol	0.9	1.7	54 n	6.7	21 k	2.8	4.0	7.5	58 jk	72 cd	12.77 i	4078 ef	505 h
Mean	**0.5**	**1.3**	**83**	**6.8**	**38**	**3.0**	**2.9**	**2.9**	**63**	**72**	**16.53**	**4490**	**743**
LSD $_{0.05}$[3]	**0.4**	**0.4**	**5**	**0.7**	**7**	**1.1**	**1.3**	**1.2**	**3**	**2**	**0.01**	**737**	**136**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

2013 Results across Locations

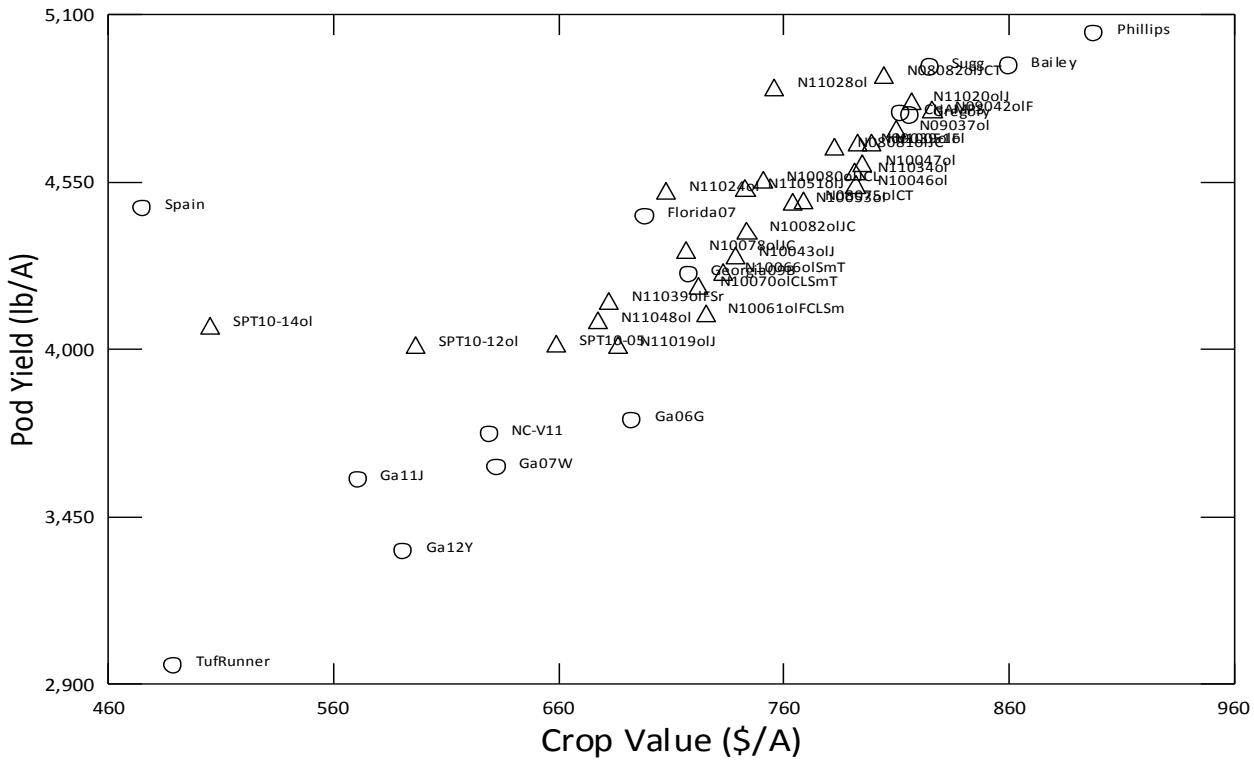

Figure 22. Summary of pod yield and crop value across locations and digging dates in 2013. Vertical bar represents mean crop value and horizontal bar mean pod yield of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value.

2013 Results across Locations

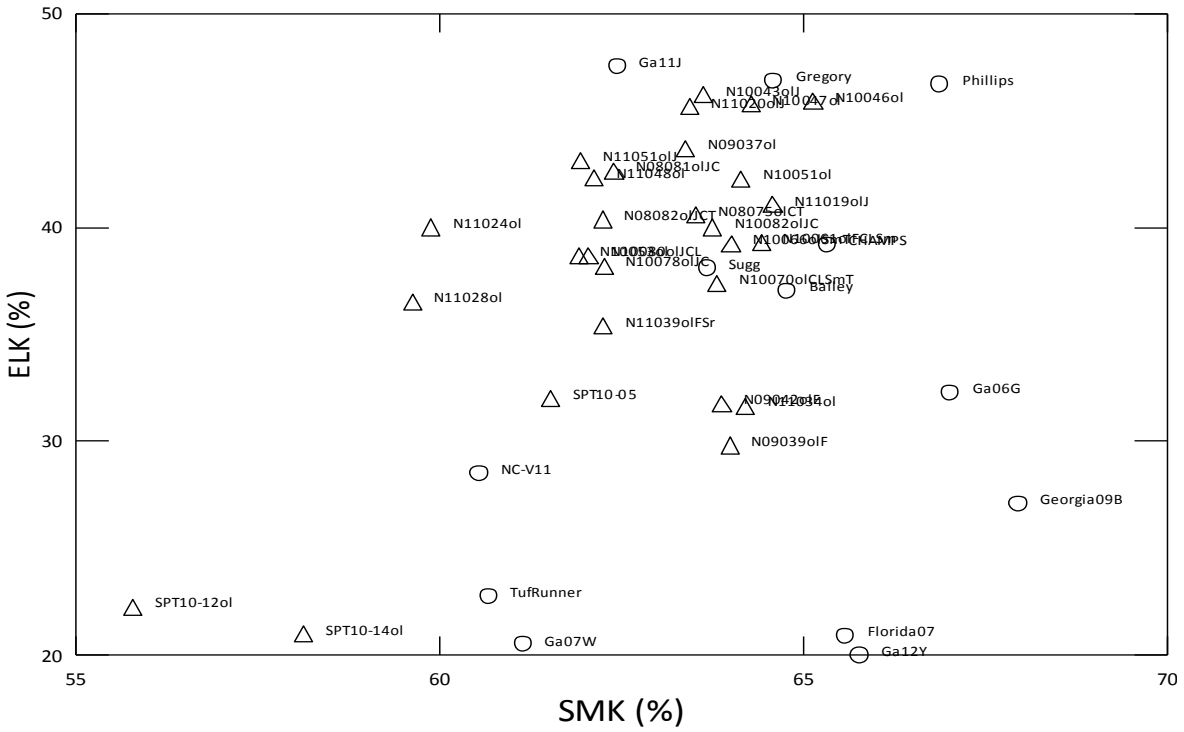

Figure 23. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content across all locations and digging dates in 2013. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content.

2013 Results across Locations

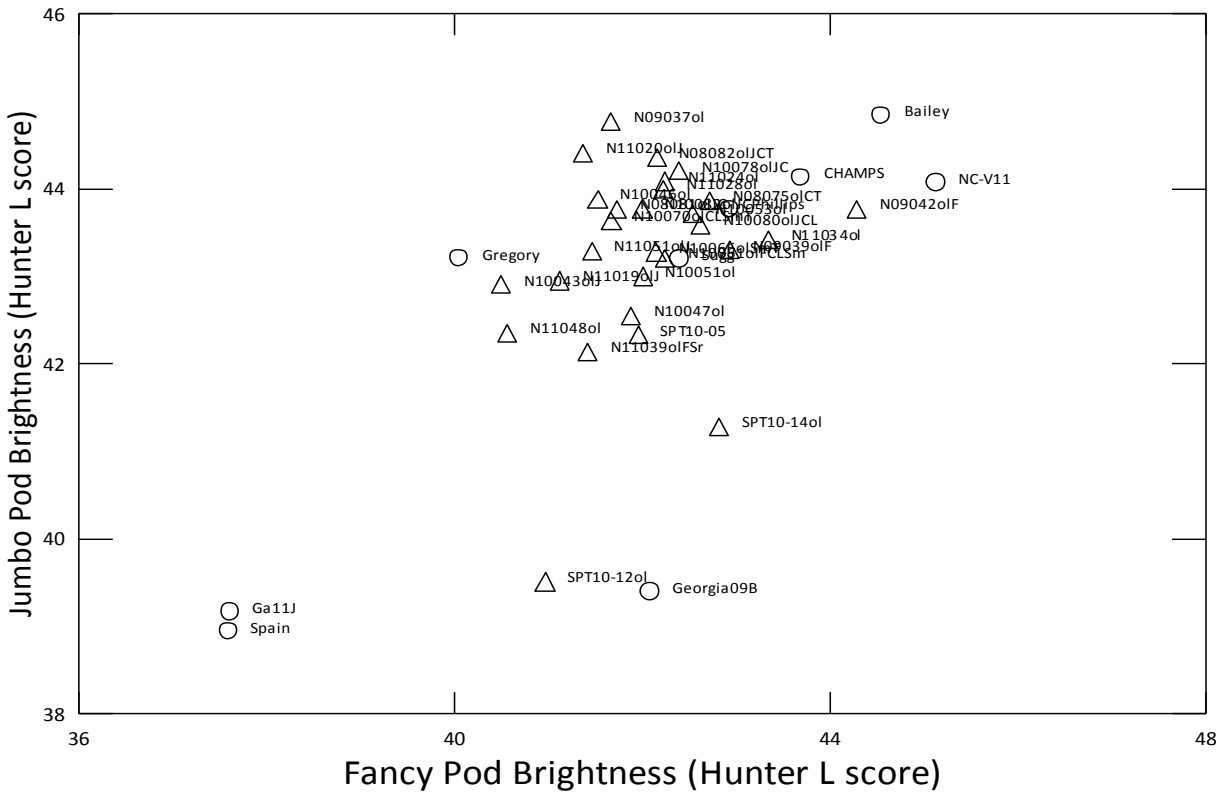

Figure 24. Brightness of jumbo and fancy pods across all test locations and digging dates in 2013. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 36 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness. Georgia 07W, Florida 07 and Florunner were omitted due to very low values.

Two-year Averages by Location

RESULTS – TWO-YEAR AVERAGES

Table 27. Performance of genotypes at Tidewater AREC (Suffolk), VA. Two-year averages (2012-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.8	1.0	96 a	7.7	51 a-c	1.3	2.1	3.8	63 b-d	70 e	16.19 de	5292 b-e	855 de
Phillips	0.5	0.8	92 b-f	7.7	53 ab	1.4	1.8	2.4	68 a	73 a	17.78 a	5354 b-e	955 a-d
Bailey	0.7	0.6	87 g	7.4	45 f	1.9	3.0	1.6	66 ab	72 ab	17.61 ab	5672 a-c	999 ab
Sullivan	0.3	1.1	89 fg	8.0	46 d-f	1.1	3.2	1.9	65 a-c	71 de	17.20 a-d	5339 b-e	918 b-d
Wynne	0.9	0.8	95 ab	7.5	47 d-f	1.7	2.9	3.0	63 cd	70 e	16.55 c-e	5227 b-e	862 de
N08082olJCT	0.9	0.7	96 a	7.7	49 b-e	1.8	2.5	3.2	64 bc	71 c-e	16.67 b-e	5300 b-e	880 b-d
N09037ol	0.6	0.9	95 a-c	7.7	50 a-d	1.9	2.9	2.7	64 bc	71 b-e	17.01 a-d	5161 b-e	876 c-e
N10046ol	0.7	0.9	93 a-d	7.8	52 ab	1.5	2.5	2.1	66 ab	72 a-d	17.43 a-c	5341 b-e	935 a-d
N10047ol	0.6	1.0	92 b-e	7.8	53 a	1.4	2.5	3.1	66 a-c	73 a	17.20 a-d	5122 c-e	883 b-d
N10053ol	0.5	0.7	91 c-f	7.6	48 c-f	2.8	2.7	2.5	63 b-d	71 c-e	17.07 a-d	5752 ab	984 a-c
N10066olSmT	0.4	0.9	90 d-g	7.8	46 ef	1.1	2.9	2.2	65 a-c	71 b-e	17.20 a-d	5005 de	864 de
N10078olJC	0.4	0.8	92 b-f	7.9	45 ef	2.1	2.7	3.6	64 bc	73 a	16.74 b-d	5765 ab	967 a-d
N10080olJCL	0.4	0.8	90 e-g	8.0	47 d-f	1.7	2.4	2.7	66 ab	73 a	17.39 a-c	6021 a	1047 a
N10082olJC	0.3	1.0	94 a-c	7.7	47 d-f	1.9	2.4	2.9	65 a-c	72 a-c	17.23 a-c	5624 a-d	969 a-d
SPT 10-05	0.3	1.7	90 e-g	9.1	39 g	0.7	6.4	3.0	60 d	70 e	15.65 e	4853 e	759 e
Mean	**0.5**	**0.9**	**92**	**7.8**	**48**	**1.6**	**2.9**	**2.7**	**64**	**72**	**16.99**	**5388**	**917**
LSD $_{0.05}$[3]	**0.4**	**0.3**	**3**	**1.3**	**4**	**1.0**	**1.5**	**1.3**	**3**	**1**	**0.01**	**620**	**119**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

Two-year Averages by Location

Table 28. Performance of genotypes at Martin Co., NC. Two-year averages (2012-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.8	1.0	93 a	6.9	47 a	1.2	1.9	2.1	66 ab	71 a	17.33 ab	4411 a	770 a
Phillips	0.5	0.9	85 fg	6.8	41 a-d	1.9	2.6	1.6	66 ab	72 a	17.62 a	4640 a	820 a
Bailey	0.4	0.8	81 h	6.8	37 b-e	1.7	3.4	1.9	65 a-c	72 a	17.28 ab	4719 a	819 a
Sullivan	0.5	1.0	81 h	7.2	38 a-e	1.8	3.9	2.4	63 a-d	72 a	16.84 a-c	4011 ab	677 ab
Wynne	0.8	1.1	90 a-c	6.8	38 a-e	2.1	3.3	3.3	62 cd	71 a	16.17 cd	4215 ab	681 ab
N08082olJCT	0.8	0.9	91 ab	7.0	37 a-e	1.4	3.0	2.4	64 a-c	71 a	16.70 a-c	4129 ab	690 ab
N09037ol	0.5	0.8	89 b-d	7.1	43 a-c	1.9	2.6	2.4	65 a-c	72 a	17.17 a-c	4472 a	769 a
N10046ol	0.6	0.9	88 b-f	7.2	43 ab	1.5	2.8	1.0	66 a	72 a	17.72 a	4224 ab	752 ab
N10047ol	0.5	0.8	87 d-g	6.8	41 a-d	1.8	3.0	1.5	66 ab	72 a	17.68 a	4307 ab	765 a
N10053ol	0.5	0.7	88 b-e	6.8	37 b-e	3.3	3.0	4.3	60 d	71 a	15.27 d	4457 a	677 ab
N10066olSmT	0.6	1.1	86 e-g	7.1	37 b-e	1.0	3.6	1.4	65 a-c	71 a	17.07 a-c	4198 ab	725 ab
N10078olJC	0.5	0.8	84 gh	7.5	34 c-e	1.4	4.6	2.7	62 cd	71 a	16.26 b-d	4143 ab	683 ab
N10080olJCL	0.7	1.0	87 d-g	7.1	33 de	1.9	4.3	2.5	62 cd	71 a	16.43 bc	4006 ab	668 ab
N10082olJC	0.7	1.0	87 c-g	7.0	36 b-e	1.6	3.2	2.1	66 a-c	72 a	17.31 ab	4347 ab	759 ab
SPT 10-05	0.6	1.5	85 fg	7.1	31 e	1.7	5.1	1.5	63 b-d	71 a	16.75 a-c	3586 b	606 b
Mean	**0.6**	**0.9**	**87**	**7.0**	**38**	**1.7**	**1.6**	**2.2**	**64**	**71**	**16.91**	**4255**	**724**
LSD $_{0.05}$[3]	**0.4**	**0.6**	**3**	**0.8**	**10**	**0.9**	**1.6**	**1.3**	**4**	**3**	**0.01**	**772**	**156**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

Two-year Averages by Location

Table 29. Performance of genotypes at Rocky Mount, NC. Two-year averages (2012-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.7	1.3	94 ab	6.3	42 ef	1.8	3.0	7.2	60 c	67 f	12.16 b	4402 c	610 c
Phillips	0.3	0.7	89 c-e	6.4	53 ab	2.1	1.7	3.8	66 a	74 ab	16.89 a	4845 bc	820 a-c
Bailey	0.5	0.8	83 f	6.4	44 d-f	2.0	3.2	1.9	65 ab	72 a-d	17.37 a	5963 a	1038 a
Sullivan	0.3	1.1	88 de	6.5	44 d-f	1.7	3.7	3.2	61 b	70 e	15.97 a	5183 a-c	829 a-c
Wynne	0.8	0.9	94 ab	6.5	50 a-d	1.7	2.3	3.2	64 ab	72 b-e	16.52 a	5313 a-c	894 ab
N08082olJCT	0.5	0.9	95 a	6.4	49 a-d	2.3	2.6	3.4	63 ab	71 c-e	16.44 a	5375 a-c	888 ab
N09037ol	0.4	1.0	93 a-c	6.3	47 b-e	2.8	2.7	4.0	62 ab	71 de	15.53 a	4736 bc	748 bc
N10046ol	0.4	1.0	93 ab	6.4	54 a	1.2	2.7	3.5	65 ab	73 a-d	16.92 a	5511 ab	937 ab
N10047ol	0.4	0.9	93 a-c	6.5	53 ab	1.6	2.3	3.2	66 ab	73 a-d	16.94 a	5431 ab	927 ab
N10053ol	0.2	0.7	89 c-e	6.5	46 c-e	3.3	3.1	3.5	61 b	71 de	16.28 a	5661 ab	920 ab
N10066olSmT	0.5	1.2	91 b-d	6.4	50 a-c	1.7	2.9	1.6	66 a	72 a-d	17.71 a	5235 a-c	929 ab
N10078olJC	0.4	1.1	91 a-d	6.5	49 a-d	2.0	2.4	4.7	64 ab	73 a-c	16.27 a	5401 a-c	886 ab
N10080olJCL	0.6	0.9	93 ab	6.4	53 a	2.3	1.8	3.7	66 a	74 a	17.29 a	5578 ab	964 ab
N10082olJC	0.4	1.3	92 a-d	6.3	49 a-d	1.7	2.6	4.3	64 ab	72 a-d	16.42 a	4664 bc	771 bc
SPT 10-05	0.2	1.3	86 ef	6.5	39 f	1.6	5.3	1.7	63 ab	72 b-e	16.92 a	4657 bc	789 a-c
Mean	**0.4**	**1.0**	**91**	**6.4**	**48**	**2.0**	**2.8**	**3.5**	**63**	**72**	**16.38**	**5197**	**863**
LSD $_{0.05}$[3]	**0.3**	**0.5**	**4**	**0.4**	**6**	**1.6**	**1.4**	**2.9**	**5**	**2**	**0.03**	**1013**	**262**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

Two-year Averages by Location

Table 30. Performance of genotypes at Bladen, NC. Two-year averages (2012-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	1.1	1.1	96 ab	7.7	50 ab	1.8	0.6	2.1	66 ab	70 c	17.42 a-d	5024 ab	870 a-c
Phillips	0.5	0.9	89 de	7.2	44 bc	1.8	1.2	1.8	67 a	72 bc	17.74 a-d	4878 ab	864 a-c
Bailey	0.6	0.9	89 de	7.4	43 bc	2.2	0.9	1.4	68 a	73 ab	18.21 a-c	5386 a	980 ab
Sullivan	0.6	0.9	93 b-d	7.7	49 ab	2.4	1.0	1.9	68 a	73 ab	18.08 a-c	5150 ab	932 a-c
Wynne	0.9	0.9	95 a-c	8.2	45 bc	3.8	1.2	3.7	63 bc	71 bc	16.38 de	4815 ab	789 bc
N08082olJCT	0.9	0.9	97 a	8.6	48 ab	1.8	0.8	3.5	66 ab	72 a-c	16.95 cd	4808 ab	818 a-c
N09037ol	0.7	0.8	94 a-c	7.4	49 ab	3.6	0.8	1.3	67 a	73 ab	18.41 ab	5033 ab	925 a-c
N10046ol	1.0	0.8	95 a-c	7.5	55 a	2.9	0.6	1.5	69 a	74 a	18.59 a	5518 a	1025 a
N10047ol	1.3	0.8	94 a-c	7.7	50 ab	2.6	0.8	2.5	67 a	72 ab	17.75 a-d	5094 ab	902 a-c
N10053ol	0.6	1.0	94 a-c	7.6	42 bc	3.4	1.0	5.2	62 c	72 bc	15.21 e	5252 ab	793 bc
N10066olSmT	1.2	1.1	95 a-c	7.8	48 ab	2.0	0.8	1.3	68 a	72 ab	18.23 a-c	5187 ab	943 ab
N10078olJC	0.5	0.7	92 c-e	8.4	43 bc	1.6	1.1	2.6	68 a	73 ab	17.71 a-d	5175 ab	917 a-c
N10080olJCL	0.9	1.0	94 a-c	7.5	42 bc	2.1	1.1	2.7	66 ab	72 ab	17.51 a-d	5311 ab	927 a-c
N10082olJC	0.8	1.3	96 ab	8.2	46 ab	1.9	0.9	3.3	66 ab	72 a-c	17.01 b-d	4675 ab	803 bc
SPT 10-05	0.5	1.6	88 e	9.0	36 c	1.3	2.1	1.7	67 a	72 a-c	17.61 a-d	4191 b	735 c
Mean	**0.8**	**1.0**	**93**	**7.9**	**46**	**2.3**	**1.0**	**2.4**	**66**	**72**	**17.52**	**5033**	**882**
LSD $_{0.05}$[3]	**0.8**	**0.6**	**4**	**1.0**	**9**	**1.5**	**0.5**	**1.7**	**4**	**2**	**0.01**	**1138**	**208**

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

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

[6] Fisher's least significant difference (LSD) at P = 0.05.

Two-year Averages at All Locations

Table 31. Performance of genotypes at Blackville, SC. Two-year averages (2012-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.7	1.6	93 a	6.3	48 a-c	3.1	1.6	7.0	60 d	71 h	13.50 e	4019 a-c	545 f
Phillips	0.2	0.2	88 a-c	6.2	47 a-c	3.4	1.2	5.9	62 a-d	73 c-e	15.31 d	3702 b-e	568 ef
Bailey	0.3	1.1	79 e	5.8	41 b-e	4.9	2.1	1.9	65 a	74 a-d	17.94 a	4367 a	783 a
Sullivan	0.3	2.3	83 b-e	5.7	43 a-d	5.3	2.1	2.1	63 a-c	72 e-h	17.44 ab	3768 a-e	658 b-f
Wynne	0.7	1.4	91 ab	5.8	45 a-d	5.5	1.7	3.3	62 b-d	72 e-g	16.95 a-c	3793 a-e	644 b-f
N08082olJCT	0.7	1.2	87 a-d	5.8	42 a-d	5.0	3.0	3.8	61 cd	72 gh	16.41 b-d	4367 a	711 a-d
N09037ol	0.4	1.3	87 a-d	5.8	46 a-d	5.4	1.7	2.6	63 a-c	73 d-f	17.54 ab	4026 a-c	706 a-d
N10046ol	0.5	1.1	87 a-e	5.8	49 a	5.3	1.7	2.2	65 a	74 a	18.14 a	4106 ab	739 ab
N10047ol	0.3	1.3	88 a-c	5.7	49 ab	5.7	2.0	2.8	64 ab	74 a-c	17.57 ab	4070 a-c	728 a-c
N10053ol	0.7	0.9	86 a-e	5.8	42 a-d	6.5	1.6	2.9	62 b-d	73 d-f	17.03 ab	3973 a-d	673 a-e
N10066olSmT	0.5	1.6	82 c-e	5.9	40 c-e	3.8	2.3	2.7	63 a-c	72 f-h	17.03 ab	3352 de	571 ef
N10078olJC	0.3	2.0	84 b-e	5.9	43 a-d	4.7	2.0	4.0	62 a-d	73 b-e	16.67 bc	3723 b-e	620 c-f
N10080olJCL	0.5	1.5	79 e	5.6	40 c-e	6.1	2.1	4.4	60 cd	73 c-e	15.75 cd	3597 b-e	565 ef
N10082olJC	0.5	1.8	79 de	5.3	39 de	7.6	2.2	2.4	62 b-d	74 ab	17.20 ab	3235 e	560 ef
SPT 10-05	0.3	2.1	79 e	6.0	33 e	5.0	2.8	1.8	63 a-c	72 e-g	17.36 ab	3461 c-e	605 d-f
Mean	**0.5**	**1.5**	**85**	**5.8**	**43**	**5.2**	**2.0**	**3.1**	**63**	**73**	**16.98**	**3857**	**656**
LSD $_{0.05}$[3]	**0.3**	**0.8**	**8**	**0.6**	**8**	**2.3**	**0.7**	**1.6**	**3**	**1**	**0.01**	**643**	**118**

[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 protected LSD test.

[3] Fisher's least significant difference (LSD) at P = 0.05.

Two-year Averages at All Locations

Table 32. Performance of genotypes at all locations. Two-year averages (2012-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.8	1.1	94 a	7.1	48 ab	1.7	1.9	4.0	62 ef	70 f	15.67 g	4694 a-c	753 cd
Phillips	0.4	0.7	89 c-f	7.0	48 a-c	1.9	1.8	2.7	66 a	73 ab	17.31 a-d	4823 a-c	839 a-c
Bailey	0.5	0.8	83 h	6.7	42 e	2.6	2.6	1.8	66 ab	73 ab	17.66 a	5141 a	909 a
Sullivan	0.4	1.3	86 f-h	7.0	43 c-e	2.5	2.9	2.2	64 c-e	71 de	17.12 a-e	4606 bc	789 bc
Wynne	0.8	1.0	93 ab	6.9	45 b-e	3.0	2.3	3.3	63 ef	71 e	16.55 ef	4628 bc	767 cd
N08082olJCT	0.7	0.9	93 ab	7.0	45 b-e	2.6	2.2	3.3	63 d-f	71 e	16.62 d-f	4788 a-c	796 bc
N09037ol	0.5	1.0	91 bc	6.9	47 a-d	3.1	2.2	2.6	64 b-e	72 b-e	17.16 a-e	4669 bc	802 bc
N10046ol	0.6	0.9	91 b-d	6.9	50 a	2.6	2.1	2.0	66 a	73 a	17.76 a	4861 a-c	863 ab
N10047ol	0.6	1.0	90 b-e	6.9	49 a	2.8	2.1	2.6	65 a-c	73 a	17.44 ab	4757 a-c	833 a-c
N10053ol	0.5	0.8	89 c-e	6.8	43 de	3.9	2.3	3.6	62 f	71 e	16.25 fg	4971 ab	805 bc
N10066olSmT	0.6	1.2	88 d-f	7.0	43 de	1.9	2.6	1.9	65 a-c	72 c-e	17.36 a-c	4487 cd	784 bc
N10078olJC	0.4	1.1	88 d-g	7.2	42 e	2.4	2.7	3.5	64 c-e	72 a-c	16.68 c-f	4762 a-c	799 bc
N10080olJCL	0.6	1.0	88 e-g	6.9	42 e	2.8	2.5	3.2	64 c-e	72 a-d	16.81 b-f	4883 a-c	830 a-c
N10082olJC	0.5	1.2	90 b-e	7.1	43 c-e	2.6	2.3	2.9	65 a-d	72 a-c	17.07 a-e	4708 a-c	808 bc
SPT 10-05	0.4	1.7	85 gh	7.5	35 f	2.2	4.5	2.0	63 ef	71 e	16.79 b-f	4121 d	690 d
Mean	**0.6**	**1.1**	**89**	**7.0**	**44**	**2.6**	**2.5**	**2.8**	**64**	**72**	**16.96**	**4726**	**804**
LSD $_{0.05}$[3]	**0.2**	**0.3**	**3**	**0.6**	**4**	**0.9**	**0.7**	**0.8**	**2**	**1**	**0.01**	**465**	**92**

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

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

[3] Fisher's least significant difference (LSD) at P = 0.05.

Three-year Averages at All Locations

Table 33. Performance of genotypes at Tidewater AREC (Suffolk), VA. Three-year averages (2011-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.9	0.9	96 ab	7.6	52 ab	1.1	1.8	3.0	64 b	70 e	16.62 c	5488 a	912 a
Phillips	0.5	0.7	93 cd	7.6	53 a	1.2	1.7	1.9	68 a	73 a	17.90 a	5356 a	961 a
Bailey	0.7	0.6	88 e	7.6	45 e	1.6	2.9	1.6	66 b	72 ab	17.52 a	5705 a	999 a
Sullivan	0.4	0.9	90 de	8.0	47 d	1.1	2.9	1.5	66 b	71 b-d	17.44 ab	5530 a	965 a
Wynne	0.9	0.8	93 bc	7.6	48 d	1.3	2.5	2.6	64 b	70 de	16.84 bc	5584 a	940 a
N08082olJCT	0.9	0.7	96 a	7.9	49 cd	1.5	2.3	3.0	64 b	71 c-e	16.79 bc	5585 a	936 a
N09037ol	0.7	0.8	95 a-c	7.7	51 bc	1.5	2.6	2.2	65 b	71 bc	17.30 ab	5374 a	930 a
Mean	**0.7**	**0.8**	**93**	**7.7**	**49**	**1.3**	**2.4**	**2.3**	**65**	**71**	**17.20**	**5517**	**949**
LSD $_{0.05}$[3]	**0.4**	**0.2**	**3**	**1.0**	**3**	**0.8**	**0.8**	**1.0**	**2**	**1**	**0.01**	**530**	**99**

[5] All yields are net, adjusted to 7% standard moisture and foreign material is deducted.
[6] Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.
[3] Fisher's least significant difference (LSD) at P = 0.05.

Three-year Averages at All Locations

Table 34. Performance of genotypes at Martin Co., NC. Three-year averages (2011-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.7	1.0	94 a	7.1	49 a	1.1	2.3	2.2	66 a	71 a	17.32 ab	4383 a	763 a
Phillips	0.4	1.0	86 c	7.0	43 ab	1.7	2.5	1.5	66 a	72 a	17.64 a	4513 a	797 a
Bailey	0.4	0.9	83 c	7.1	40 b	1.6	3.0	1.6	66 a	72 a	17.45 ab	4766 a	834 a
Sullivan	0.4	1.1	84 c	7.5	42 b	1.6	3.3	2.0	65 a	72 a	17.28 ab	4426 a	770 a
Wynne	0.7	0.9	92 ab	7.0	43 ab	1.5	2.7	2.7	64 a	71 a	16.82 b	4586 a	776 a
N08082olJCT	0.8	0.9	92 ab	7.3	42 ab	1.2	2.6	2.3	65 a	71 a	17.04 ab	4268 a	728 a
N09037ol	0.5	0.9	90 b	7.4	44 ab	1.5	2.6	2.1	66 a	72 a	17.34 ab	4434 a	769 a
Mean	**0.6**	**1.0**	**89**	**7.2**	**43**	**1.4**	**2.7**	**2.1**	**65**	**71**	**17.28**	**4482**	**777**
LSD $_{0.05}$[3]	**0.3**	**0.3**	**4**	**0.8**	**7**	**0.8**	**1.0**	**0.9**	**2**	**1**	**0.01**	**551**	**113**

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

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

[3] Fisher's least significant difference (LSD) at P = 0.05.

Three-year Averages at All Locations

Table 35. Performance of genotypes at Rocky Mount, NC. Three-year averages (2011-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.7	1.2	95 a	6.2	43 ab	2.4	2.5	5.1	58 b	68 b	14.05 b	4759 b	726 b
Phillips	0.5	0.8	89 b	6.2	47 a	3.0	2.0	3.0	64 a	72 a	16.92 a	4941 b	838 ab
Bailey	0.5	0.8	85 c	6.2	39 b	2.5	3.0	1.5	65 a	72 a	17.43 a	5925 a	1033 a
Sullivan	0.4	0.9	89 b	6.4	41 ab	2.7	3.2	2.4	62 ab	70 a	16.62 a	5480 ab	915 ab
Wynne	0.8	0.7	95 a	6.4	47 a	2.7	2.3	2.7	64 a	72 a	16.88 a	5543 ab	946 ab
N08082olJCT	0.7	0.8	96 a	6.2	48 a	3.4	2.0	2.8	64 a	72 a	17.01 a	5542 ab	947 ab
N09037ol	0.6	0.9	93 a	6.3	47 a	2.8	2.3	3.0	63 a	71 a	16.44 ab	5037 b	841 ab
Mean	**0.6**	**0.9**	**91**	**6.3**	**45**	**2.8**	**2.5**	**2.9**	**63**	**71**	**16.48**	**5318**	**892**
LSD $_{0.05}$[3]	**0.3**	**0.3**	**3**	**0.3**	**7**	**1.7**	**1.1**	**2.7**	**5**	**2**	**0.02**	**861**	**230**

[9] All yields are net, adjusted to 7% standard moisture and foreign material is deducted.
[10] Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.
[3] Fisher's least significant difference (LSD) at P = 0.05.

Three-year Averages at All Locations

Table 36. Performance of genotypes at Bladen, NC. Three-year averages (2011-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	1.0	1.0	94 a	7.3	46 ab	1.8	1.0	2.5	65 b	70 b	17.09 b	4689 a	801 ab
Phillips	0.7	0.9	88 b	7.1	44 ab	1.6	1.4	1.9	67 ab	71 a	17.64 ab	4730 a	834 ab
Bailey	0.7	0.8	88 b	7.2	43 b	2.3	1.1	1.5	68 a	73 a	18.08 ab	5013 a	907 ab
Sullivan	0.6	0.9	91 ab	7.5	50 a	2.2	1.2	1.5	68 a	73 a	18.25 a	5103 a	932 a
Wynne	0.9	0.8	94 a	7.6	46 ab	3.4	1.1	3.1	64 b	72 a	16.99 b	4790 a	815 ab
N08082olJCT	1.1	0.8	95 a	8.2	47 ab	2.2	1.1	3.1	65 ab	72 a	17.13 ab	4403 a	756 b
N09037ol	0.7	0.8	91 ab	7.4	46 ab	3.0	1.1	1.9	67 ab	73 a	18.04 ab	4618 a	834 ab
Mean	**0.8**	**0.8**	**91**	**7.5**	**46**	**2.4**	**1.1**	**2.2**	**66**	**72**	**17.60**	**4763**	**840**
LSD $_{0.05}$[3]	**0.5**	**0.4**	**5**	**0.7**	**6**	**1.2**	**0.5**	**1.2**	**3**	**1**	**0.01**	**801**	**156**

[11] All yields are net, adjusted to 7% standard moisture and foreign material is deducted.
[12] Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.
[3] Fisher's least significant difference (LSD) at P = 0.05.

Three-year Averages at All Locations

Table 37. Performance of genotypes at all locations. Three-year averages (2011-2013).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price $/cwt	Yield[1] lb/A	Value $/A
Gregory	0.8	1.1	94 a	7.0	48 a	1.6	1.9	3.4	63 c	70 d	16.14 c	4775 b	784 b
Phillips	0.5	0.8	89 c	7.0	47 ab	1.9	1.9	2.3	66 a	72 ab	17.41 ab	4819 ab	842 ab
Bailey	0.5	0.8	85 d	6.9	42 c	2.4	2.5	1.6	66 a	72 a	17.65 a	5169 a	912 a
Sullivan	0.4	1.2	87 c	7.1	45 b	2.3	2.6	1.9	65 ab	72 a-c	17.40 ab	4881 ab	851 ab
Wynne	0.8	0.9	93 ab	7.0	46 ab	2.7	2.1	2.8	64 bc	71 bc	16.89 b	4910 ab	832 b
N08082olJCT	0.8	0.9	93 a	7.1	46 ab	2.5	2.1	3.0	64 bc	71 c	16.88 b	4883 ab	825 b
N09037ol	0.6	0.9	91 b	7.0	47 ab	2.6	2.1	2.3	65 ab	72 a-c	17.33 ab	4747 b	824 b
Mean	**0.6**	**0.9**	**90**	**7.0**	**46**	**2.3**	**2.2**	**2.5**	**65**	**71**	**17.11**	**4886**	**840**
LSD $_{0.05}$[3]	**0.2**	**0.2**	**2**	**0.4**	**3**	**0.7**	**0.5**	**0.7**	**1**	**1**	**0.01**	**364**	**74**

[13] All yields are net, adjusted to 7% standard moisture and foreign material is deducted.
[14] Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.
[3] Fisher's least significant difference (LSD) at P = 0.05.

Multi-Year Averages Across Locations

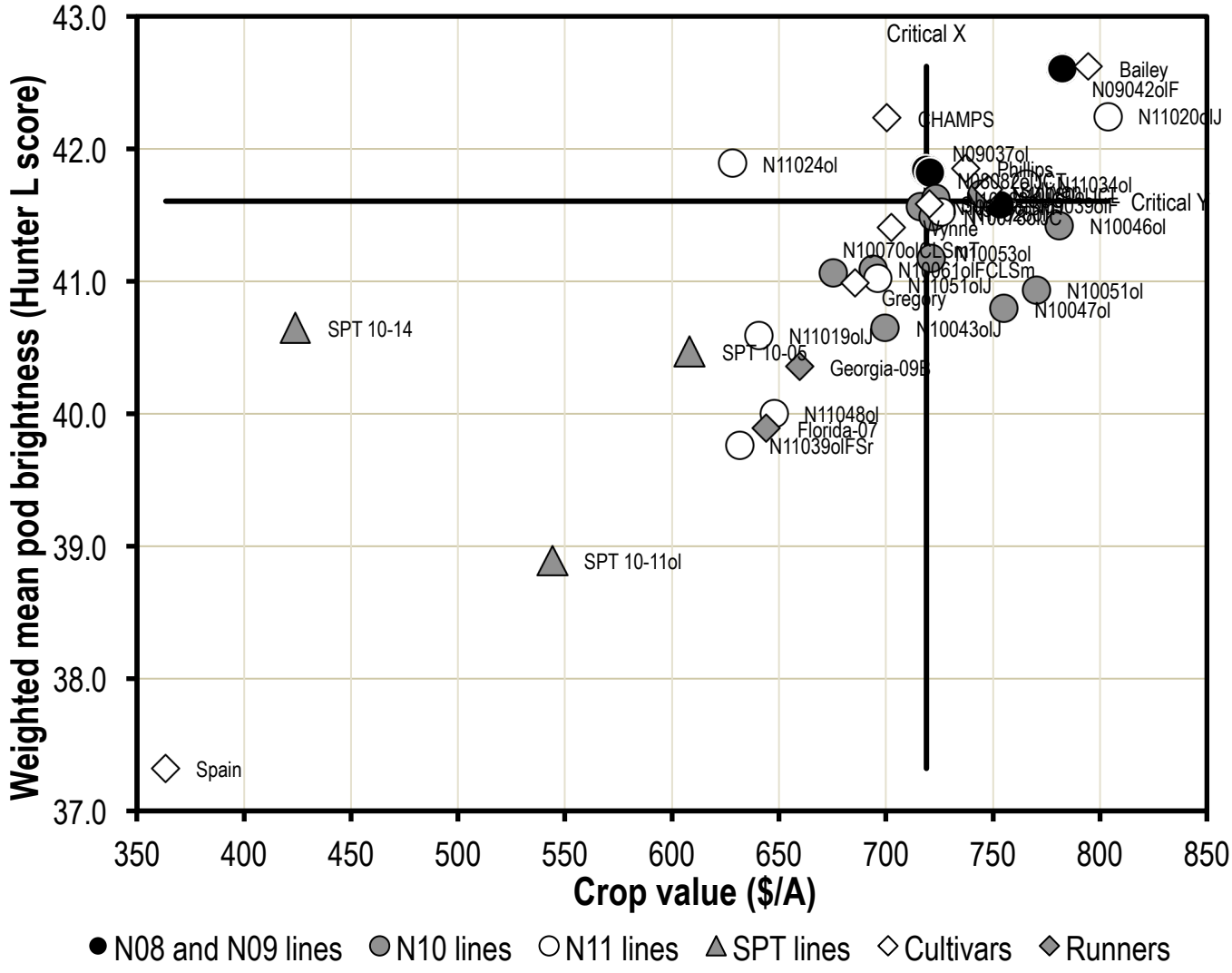

Figure 25. Mean pod brightness and crop value for lines and cultivars including all PVQE tests from 2010 to 2013. Breeding lines developed by Isleib and Tallury (SPT) are marked by circles and triangles, and cultivars are marked by diamonds. Lines represent critical values for crop value (*Critical X*) and pod brightness (*Critical Y*) and they were derived by subtracting the least significant difference (LSD) from the maximum values for crop value and pod brightness.

Multi-Year Averages Across Locations

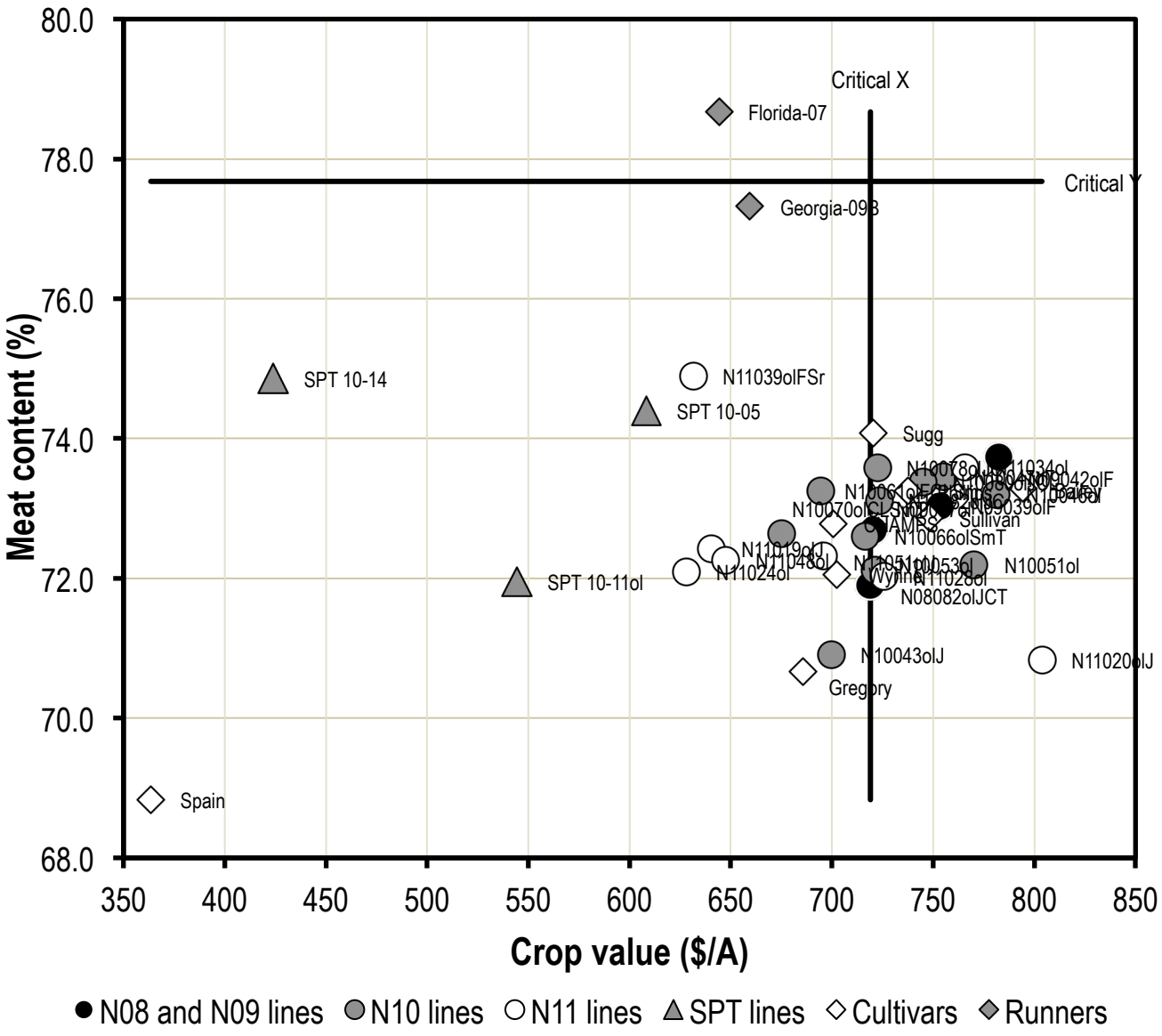

Figure 26. Meat content and crop value for lines and cultivars, virginia-type and runners, including all PVQE tests from 2010 to 2013. Breeding lines developed by Isleib and Tallury (SPT) are marked by circles and triangles, and cultivars are marked by diamonds. Lines represent critical values for crop value (*Critical X*) and meat content (*Critical Y*) and they were derived by subtracting the least significant difference (LSD) from the maximum values for crop value and meat content.

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