

2014

Peanut Variety and Quality Evaluation Results

I. Agronomic and Grade Data

Tidewater Agricultural Research and Extension Center

Virginia Agricultural Experiment Station



**Virginia
Cooperative
Extension**

Virginia Tech
Virginia State University

PEANUT VARIETY AND QUALITY EVALUATION RESULTS 2014

I. Agronomic and Grade Data

Maria Balota, Ph.D.
Associate Professor Crop Physiology
Virginia Tech – Tidewater AREC

Thomas G. Isleib, Ph.D.
Peanut Breeder
North Carolina State University

Shyam Tallury, Ph.D.
Peanut Breeder
Clemson University

Jay Chapin, Ph.D.
Extension Specialist
Clemson University

TECHNICAL SUPPORT:
F. Bryant, Ag Specialist
P. Copeland, Office Services Specialist
S. Copeland, Research Assistant
C. Daughtrey, Ag Technician
B. Kennedy, Ag Technician
D. Redd, Ag Specialist
C. Stockton, Lab Assistant

Virginia Polytechnic Institute and State University
Virginia Agricultural Experiment Station
Tidewater Agricultural Research and Extension Center
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Brenda Kennedy, above

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LIST OF COOPERATORS

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Mr. R. D. Ashburn, Farm Manager, Tidewater AREC

Dr. H. Mehl, Tidewater AREC

Dr. D. A. Herbert, Jr., Tidewater AREC

Mr. Bruce Beahm, VCIA

Mr. T. Hardiman, VCIA

Other universities

Dr. T. Isleib, NCSU

Dr. B. Tillman, University of Florida

Mr. C. Bogle, Upper Coastal Plain Research Station, NCSU

Growers

Mr. T. Slade, Martin Co., NC

Mr. D. McDuffie, Bladen Co., NC

County Agents

Mr. N. Clark, Southampton Co., VA

Ms. J. Spencer, Isle of Wight Co., VA

Mr. S. Reiter, Prince George Co., VA

Mr. M. Parrish, Dinwiddie Co., VA

Mr. M. Williams, Suffolk, VA

Ms. B. Council, Greensville/Emporia, VA

Mr. G. Slade, Surry Co., VA

Mr. K. Wells, Sussex Co., VA

Mr. A. Cochran, Martin Co., NC

Commodity Groups

Mr. D. Cotton, Virginia Peanut Board

Mr. B. Sutter, North Carolina Peanut Board

Mr. B. Boozer, South Carolina Peanut Board

Companies

Mr. F. Garner, Birdsong Peanut

Mr. K. Bennett, Birdsong Peanut

Mr. M. Simmons, Birdsong Peanut

Mr. J. Laine, Wakefield Peanut Company

Mr. B. Gwaltney, Indika Farms, Inc.

Mr. L. Fowler, Helena

Mr. H. Hamlin, Helena

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Syngenta Crop Protection

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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 (\$357.79 per ton for Virginia-type and \$354.86 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:

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

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

$$\text{Virginia-type} = (((\text{SMK} + \text{SS}) * 4.915) + (\text{OK} * 1.4))/2000 + (((\text{ELK} + \text{SXL}) * 0.35)/2000)$$

$$\text{Runner-type} = (((\text{SMK} + \text{SS}) * 4.819) + (\text{OK} * 1.4))/2000$$

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Introduction

INTRODUCTION

Due to suitability to the environmental conditions and existence of a strong peanut industry tailored to process primarily the large-seeded Virginia-type peanut, growers in Virginia, North Carolina, and South Carolina generally grow Virginia-type cultivars. In the view of a common interest in the Virginia-type peanut, the three states are working together through a multi-state project, the Peanut Variety Quality Evaluation (PVQE), to evaluate advanced breeding lines and commercial cultivars throughout their production regions. The objectives of this project are: 1) to determine yield, grade, quality, and disease response of commercial cultivars and advanced breeding lines at various locations in Virginia and the Carolinas, 2) develop a database for Virginia-type peanut to allow research-based selection of the best genotypes by growers, industry, and the breeding programs, and 3) to identify the most suited peanut genotypes for various regions that can be developed into varieties. This report contains agronomic and grade data of the PVQE tests in 2014.



Plant Material and Test Locations

PLANT MATERIAL AND TEST LOCATIONS

In 2014, PVQE included 30 genotypes: 5 commercial varieties and 25 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 Spain and the 2013 releases, Sullivan and Wynne. Genotypes were planted from May 7 through 30 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 5 × 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. Due to late arrival of the grading samples from SC, data for this location will be included in the second PVQE report. For the other locations, cultivars were compared with the breeding lines for yield and grading characteristics as the ultimate objective is development of new Virginia-type peanut cultivars.



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 2014.

Genotype Number	Variety or Line	Pedigree
1	Bailey	NC 12C*2 / N96076L
2	Sugg	Gregory // X98006 (F1)
3	Wynne	Bailey / X03036 (F01)
4	Sullivan	N03079FT / X03034 (F01)
5	Spain	
6	07030-1-10-1	
7	07036-1-2-1	
8	N09037ol	N03079FT*2 / Brantley
9	N09039olF	N03079FT / X03032 (F01)
10	N09042olF	N03079FT / X03032 (F01)
11	N10043olJ	N02006 / X03024 (F01)
12	N10046ol	N03079FT / X03031 (F01)
13	N10047ol	N03079FT / X03031 (F01)
14	N10051ol	N03079FT / N02059ol (Per)
15	N10066olSmT	N03076FT / X05019 (F01)
16	N10078olJC	N03088T / X05030 (F01)
17	N10080olJCL	N03088T / X05030 (F01)
18	N10082olJC	N03088T / X05030 (F01)
19	N11020olJ	X03146 (BC1F1-01-03-01: F04) / N03084FT
20	N11028ol	X03151 (BC1F1-05-02-S-04: F05) / Sugg
21	N11034ol	X03151 (BC1F1-05-02-S-04: F05) / Sugg
22	N11048ol	X03153 (BC1F1-04-01-S-01: F05) / N03078FT
23	N11051olJ	X03153 (BC1F1-04-01-S-01: F05) / N03084FT
24	N12006ol	Bailey / X07015 (BC2F1-01: F01)
25	N12007ol	Bailey / X07016 (BC2F1-04: F01)
26	N12008olCLSmT	Bailey / X07016 (BC2F1-04: F01)
27	N12009olCLT	Bailey / X07016 (BC2F1-04: F01)
28	N12010ol	Bailey / X07016 (BC2F1-04: F01)
29	N12014ol	Bailey / X07018 (BC2F1-07: F01)
30	N12015ol	Bailey / X07018 (BC2F1-07: F01)

Plant Material and Test Locations

Table 2. Planting, digging and combining dates for each test location in 2014. Dig I was considered an early digging, and Dig II and optimum digging time for peanut in V-C area.

Locations	Planting Date		Digging Date		Combining Date	
	I	II	I	II	I	II
Tidewater AREC, VA	May 7	May 7	Sept. 22	Oct. 6	Sept. 31	Oct. 10
Martin Co., NC	May 30	May 30	Sept. 19	Oct. 19	Sept. 29	Oct. 28
Rocky Mount, NC	May 9		Oct. 7		Oct. 22	
Bladen Co., NC	May 14		Oct. 9		Oct. 21	

Weather Conditions

WEATHER CONDITIONS

The 2014 growing season was cool and humid at all locations. Weather information is provided in Tables 3 through 6.

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 2014 peanut growing season. These data are provided by the Peanut/Cotton InfoNet of Tidewater AREC from 1 May to 31 October.

Month	AVG	Max	Min	AVG	Heat	AVG	Max	RH	Rain
	Tair	Tair	Tair	Tsoil	units	RAD ¹	RAD ¹		
		°F			°F d		Wm ⁻²	%	inch
May	70	82	58	69	632	215	750	74	3.0
June	76	89	64	77	1230	256	826	81	3.0
July	77	88	67	80	1889	236	778	79	4.0
August	76	86	67	78	2498	188	646	83	6.9
September	73	83	65	75	3010	150	561	83	6.1
October	66	79	53	69	3101	156	603	77	0.3
Mean/Sum	73	85	62	75	2060	200	694	80	23.2

¹ Light is important for peanut growth and development. On a fully sunny day, maximum RAD approaches 1366 watts/m² and average RAD (average from sunrise to sunset) is approximately 250 watts/m². 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 2014 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	$\mu\text{mol m}^{-2} \text{s}^{-1}$	$\mu\text{mol m}^{-2} \text{s}^{-1}$	%	inch
May	71	81	61	72	460	534	2021	66	2.4
June	76	86	66	78	606	561	2218	71	6.6
July	77	86	69	81	658	508	2138	75	9.1
August	75	85	67	80	540	433	2012	79	2.1
September	72	81	65	77	503	329	1736	82	9.3
October	63	75	52	67	236	340	1535	74	1.8
Mean/Sum	72	82	63	76	500	451	1943	75	31.2

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

Weather Conditions

Table 5. Temperature of air and soil at 4 inches depth, peanut heat units (degree day – DD56) calculated based on a 56 °F temperature base (T_b), light (photosynthetic active radiation – PAR), air relative humidity (RH), and precipitation at Rocky Mount, NC, in 2014 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	$\mu\text{mol m}^{-2} \text{s}^{-1}$	%	inch
May	71	82	61	74	474	497	65	2.6
June	77	88	67	81	642	563	71	5.1
July	77	87	69	81	679	501	75	6.7
August	75	84	67	80	607	409	81	9.3
September	71	81	64	76	496	321	82	4.7
October	62	75	51	66	228	358	74	2.6
Mean/Sum	72	83	63	76	521	441	75	30.9

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

Table 6. Temperature of air and soil at 4 inches depth, peanut heat units (degree day – DD56) calculated based on a 56 °F temperature base (T_b), air relative humidity (RH), and precipitation at Bladen County, NC, in 2014 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	70.7	82.5	58.8	383	67	4.2
June	78.0	89.6	66.5	640	73	0.7
July	78.0	87.7	68.4	641	77	6.3
August	76.5	85.5	67.6	619	80	6.1
September	72.4	79.7	65.1	478	85	7.1
October	64.2	76.0	52.4	216	74	2.6
Mean/Sum	73.3	83.5	63.1	496	76	27.0

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 7 through 10 show planting dates, soil type, pH and mineral content, and cultural practices applied to the crops at each location.



Cultural Practices

Table 7. Cultural practices at Tidewater AREC (Suffolk), VA, for Digs I and II in 2014.

Planting Date:	May 7, 2014						
Harvest Date:	Dig 1 – September 31, 2014; Dig II – October 10, 2014						
Soil Type:	Dragston, Eunola Rains						
Soil Test Results:	ppm						
	pH	P	K	Ca	Mg	Zn	Mn
	6.21	49	117	476	39	0.5	1.4
Cultivation:	None						
Soil Fumigant:	None						
Landplaster:	6/16/14	-	US 420 Gypsum 1200 lbs/A				
Herbicides:	4/24/14	-	Dual 1 pt/A				
	5/8/14	-	Warrant 1.5 qt/A				
	6/7/14	-	Storm 1.5 pt/A; Basagran 1 pt/A				
Insecticides:	5/7/14	-	Admire Pro 7 oz/A				
	5/22/14	-	Orthene 12 oz/A				
	6/12/14	-	Orthene 12 oz/A				
	8/21/14	-	Asana 8 oz/A				
Fertility:	5/7/14	-	Optimize Lift 16 oz/A				
	5/8/14	-	Boron 9% 1 qt/A				
	6/6/14	-	Wexal micro nutrient 1 pt/A				
	6/30/14	-	Manganese 8% 1 qt/A; Boron 9% 1 qt/A				
	7/29/14	-	Manganese 8% 1 qt/A				
Fungicides:	5/7/14	-	Proline 5.7 oz/A				
	7/7/14	-	Tilt/Bravo 1.5 pt/A				
	7/26/14	-	Omega 1 pt/A; Provost 10 oz/A				
	8/21/14	-	Omega 1 pt/A; Provost 8 oz/A				

Cultural Practices

Table 8. Cultural practices at Martin Co., NC, for Digs I and II, in 2014.

Planting Date:	May 30, 2014
Harvest Date:	Dig I - September 29, 2014; Dig II – October 28, 2014
Soil Type:	Norfolk loamy fine sand
Cultivation:	Deep Disc/bedded
Soil Fumigant:	None
Landplaster:	7/9/14 - US 420 Gypsum 1500 lbs/A
Herbicides:	5/8/14 - Prowl H2O 12 oz/A; Dual Magnum 1pt/A; Gramoxone 1 pt/A 5/15/14 - Warrant 1.5 qt/A 7/9/14 - Dual Magnum 18 oz/A
Insecticides:	5/8/14 - Admire Pro 7 oz/A 5/15/14 - Orthene 97 12 oz/A 7/9/14 - Asana 12 oz/A 8/20/14 - Asana 9 oz/A
Fertility:	5/8/14 - Optimize Lift 16 oz/A 5/15/14 - Boron 9% 1 qt/A 7/9/14 - Boron 9% 24 oz/A; Manganese 8% 1 qt/A; Micro-nutrient 1.5 lb/A 8/20/14 - Manganese 1 qt/A
Fungicides:	5/8/14 - Proline 5.7 oz/A 7/9/14 - Tilt/Bravo 1.5 pt/A 7/30/14 - Omega 1 pt/A; Provost 10 oz/A 8/20/14 - Provost 8 oz/A; Omega 1 pt/A

Cultural Practices

Table 9. Cultural practices at Rocky Mount, NC in 2014.

Planting Date:	May 9, 2014
Harvest Date:	October 22, 2014
Soil Type:	Aycock very fine sandy loam
Cultivation:	Conventional Till
Soil Fumigant:	None
Landplaster:	7/7/14 - Agri Gypsum 1200 lbs/A
Herbicides:	5/7/14 - Intrro 2 qt/A 6/4/14 - Ultra Blazer 1.5 pt/A; Basagran 1.5 pt/A 6/17/14 - Cleanse 12 oz/A 7/2/14 - Cleanse 16 oz/A; Dual Magnum 1 pt/A
Insecticides:	5/9/14 - Admire Pro 7 oz/A 5/31/14 - Orthene 97 10 oz/A 7/9/14 - Lorsban 15G 14 lbs/A 7/29/14 - Asana XL 9.6 oz/A 8/28/14 - Asana XL 9 oz/A 9/17/14 - Tracer 3 oz/A
Fertility:	5/9/14 - Optimize Lift 16 oz/A 7/14/14 - Boron 2.5 lbs/A 7/29/14 - Manganese 1 lb/A
Fungicides:	8/9/14 - Proline 5.7 ozA 7/14/14 - Bravo 1.5 pt/A 7/29/14 - Omega 500 1 pt/A 8/15/14 - Bravo WS 1.5 pt/A; Provost 8 oz/A 8/28/14 - Omega 500 1.5 pt/A 9/17/14 - Bravo Ultra 1.36 lb/A

Cultural Practices

Table 10. Cultural practices at Bladen County, NC in 2014.

Planting Date:	May 14, 2014
Harvest Date:	October 21, 2014
Soil Type:	Goldsboro sandy loam
Cultivation:	Conventional Till
Soil Fumigant:	None
Landplaster:	Gypsum 2050 lbs/A
Herbicides:	Intro 1 qt/A + Dual 1 ½ pt/A Cadre 4 oz/A + Crop oil 1 qt/A Cobra 12 ½ oz Select 8 oz/A Crop oil 1 qt/A
Insecticides:	Orthene 4 oz/A Tracer 2 oz/A Lorsban grandule 10 lbs/A Tracer 2 oz/A Deminlin 1 pt/A
Fertility:	5% Manganese 1 qt/A 10% Boron 1 qt/A 32% Nitrogen 1 qt/A 5% Manganese 1 qt/A 10% Boron 1 qt/A 32% Nitrogen 1 qt/A
Fungicides:	Tilt Bravo 1 ½ pt/A Abound 18 oz/A Headline 9 oz/A Bravo 1 ½ pt/A + Folicur 7.2 oz/A Headline 9 oz/A
Growth Regulators:	Apogee 7 ¼ oz/A

2014 Results by Location

RESULTS

Seedcoat color and maturity rating are presented in Table 11. After harvest, yield and farmer-stock grade factors including percentages of jumbo and fancy pods, pod brightness, foreign material (%FM), loose shelled kernels (%LSK), % jumbo and fancy pods, extra large kernels (%ELK), sound mature kernels (%SMK), sound splits (%SS), other kernels (%OK), damaged kernels (%DK), and pod brightness (Hunter L score) for jumbo and fancy pods were measured. Pod yield was adjusted for 7% kernel moisture and price per pound calculated by the federal formulas. Crop value per acre was also computed. The results are presented in tables 12 to 21 and figures 1 through 19 for individual locations and all locations combined. Two- and three-year averages are presented in Tables 22-32.

In general 2014 was a good year for peanut production but challenging throughout the summer because of frequent and heavy rainfalls. We managed to plant, maintain, and dig in a timely fashion. 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 deficiency symptoms 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 problematic for some locations because of frequent rainfalls in Oct. Yield and grading was exceptionally good in 2014.



2014 Results by Location

RESULTS – SEEDCOAT COLOR AND MATURITY

Table 11. Seedcoat color and maturity rating of the peanut entries averaged for all locations in 2014.

Variety or Line	Seedcoat ¹ Color	Maturity Rating ²	
		ELK	Medium
Bailey	LT	1	2
Sugg	LP	1	2
Wynne	LT	1	2
Sullivan	LT	1	2
Spain	P	2	3
07030-1-10-1	T	1	2
07036-1-2-1	LT	1	2
N09037ol	LT	1	2
N09039olF	LT	1	2
N09042olF	LT	1	2
N10043olJ	LT	1	2
N10046ol	LT	1	2
N10047ol	LT	1	2
N10051ol	LT	1	2
N10066olSmT	LT	1	2
N10078olJC	LP	1	2
N10080olJCL	P	1	2
N10082olJC	P	1	2
N11020olJ	LT	1	2
N11028ol	LP	1	2
N11034ol	LT	1	2
N11048ol	P,LP	1	2
N11051olJ	P,LP	1	2
N12006ol	P	1	2
N12007ol	LT	1	2
N12008olCLSmT	LT	1	2
N12009olCLT	LT	1	2
N12010ol	LT	1	2
N12014ol	P	1	2
N12015ol	P	1	2

¹ T = tan, LP = light pink, P = pink, and LT = Light Tan² 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.

2014 Results by Location

RESULTS – PODS

Table 12. Average percent of jumbo pods¹ based on farmers' grade at all locations in 2014.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Average of all locations
	Dig I	Dig II	Dig I	Dig II			
Bailey	22 qr ²	21 j-m	32 h-k	23 k-o	18 k-m	38 i-m	25 j-m
Sugg	26 o-r	24 j-m	27 j-m	25 i-n	18 k-m	37 i-n	26 j-l
Wynne	65 b-e	65 cd	73 b-d	66 b-e	64 ef	61 de	65 c
Sullivan	39 j-o	35 h-j	37 g-j	33 i-l	33 ij	35 j-n	35 hi
Spain	81 a	75 a-c	79 a-c	71 bc	81 ab	71 a-d	76 b
07030-1-10-1	83 a	73 bc	68 cd	78 ab	81 ab	75 a-c	76 b
07036-1-2-1	72 a-c	85 ab	75 a-d	73 bc	81 a-c	75 a-c	77 b
N09037ol	67 b-d	72 bc	67 d	61 c-f	74 b-d	68 b-d	68 c
N09039olF	35 m-p	19 k-m	13 n	21 l-o	13 lm	18 p	20 m
N09042olF	18 r	11 m	17 mn	10 o	9 m	13 p	13 m
N10043olJ	81 a	87 a	87 a	87 a	86 a	78 ab	84 a
N10046ol	72 a-c	62 c-e	75 b-d	55 d-g	71 c-e	60 d-f	66 c
N10047ol	67 b-d	57 d-f	77 a-d	68 b-d	64 ef	59 d-f	65 c
N10051ol	54 e-i	53 d-g	50 ef	47 gh	33 ij	48 f-i	47 ef
N10066olSmT	49 g-k	46 f-h	49 e-g	49 f-h	39 i	50 e-h	47 ef
N10078olJC	50 f-j	50 e-g	44 e-h	37 h-j	33 ij	43 g-k	43 fg
N10080olJCL	48 g-l	43 g-i	40 f-i	24 j-n	38 i	39 h-m	38 gh
N10082olJC	56 d-h	53 d-g	53 e	54 e-g	50 gh	52 e-g	53 de
N11020olJ	76 ab	74 a-c	81 ab	72 bc	82 ab	81 a	77 b
N11028ol	47 h-m	46 f-h	53 e	36 h-k	42 hi	46 g-j	45 f
N11034ol	24 p-r	25 j-l	17 mn	26 i-m	18 k-m	26 no	22 lm
N11048ol	61 c-g	57 d-f	66 d	39 hi	58 fg	61 de	57 d
N11051olJ	63 c-f	66 cd	71 b-d	68 b-e	65 d-f	65 cd	66 c
N12006ol	37 k-o	28 j-l	29 i-m	21 l-o	24 jk	33 k-n	28 j-l
N12007ol	40 j-n	24 j-m	30 i-l	19 l-o	20 kl	32 k-n	27 j-l
N12008olCLSmT	32 n-q	31 i-k	35 h-k	29 i-m	17 k-m	32 k-n	29 i-k
N12009olCLT	42 i-n	26 j-l	37 g-j	18 m-o	33 ij	34 j-n	32 ij
N12010ol	36 l-p	27 j-l	23 k-n	28 i-m	17 k-m	27 m-o	26 j-l
N12014ol	38 j-o	17 lm	24 k-n	23 k-o	20 kl	30 l-o	25 k-m
N12015ol	20 qr	19 k-m	18 mn	12 no	9 m	41 g-l	20 m
Mean	50	45	48	42	43	47	47
LSD_{0.05}³	13	14	12	14	10	12	6

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

2014 Results by Location

Table 13. Average percent of fancy pods¹ based on farmers' grade at all locations in 2014.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Average of all locations
	Dig I	Dig II	Dig I	Dig II			
Bailey	49 a-d ²	57 a	54 a-d	56 a-e	63 a-d	46 c-f	54 ab
Sugg	54 a	56 a	55 a-c	56 a-e	62 a-e	52 a-e	55 a
Wynne	29 i-n	35 e-g	22 g-i	27 jk	32 i-k	30 i-k	29 i
Sullivan	42 b-g	49 a-d	51 b-e	51 c-g	55 c-f	55 a-c	50 a-d
Spain	16 op	20 h-j	17 ij	21 k-m	15 m	21 l-n	18 jk
07030-1-10-1	14 p	19 ij	23 g-i	16 lm	15 m	17 mn	17 jk
07036-1-2-1	21 m-p	12 j	19 h-j	22 j-l	15 m	19 l-n	18 jk
N09037ol	30 h-n	25 g-i	27 gh	31 ij	25 kl	26 k-m	27 i
N09039olF	38 d-j	51 a-c	57 a-c	63 a	62 a-e	59 a	55 ab
N09042olF	47 a-e	46 a-e	53 a-d	52 b-g	51 fg	57 ab	51 a-d
N10043olJ	17 op	13 j	11 j	11 m	13 m	17 n	13 k
N10046ol	23 l-p	31 f-h	22 g-i	39 hi	25 j-l	28 j-l	28 i
N10047ol	26 k-o	35 e-g	21 hi	26 jk	33 ij	32 h-k	29 i
N10051ol	35 f-k	39 d-f	44 ef	45 f-h	55 d-f	41 f-h	43 fg
N10066olSmT	39 c-j	42 b-f	43 ef	43 gh	55 d-f	39 f-i	43 e-g
N10078olJC	40 c-i	40 c-f	46 d-f	49 e-g	60 a-e	48 b-f	47 d-f
N10080olJCL	39 c-j	43 b-e	50 c-e	60 a-d	54 ef	46 d-f	48 c-e
N10082olJC	31 g-m	39 d-f	41 f	38 hi	45 gh	36 g-j	38 gh
N11020olJ	20 n-p	22 h-j	17 ij	26 jk	18 lm	16 n	20 j
N11028ol	37 e-k	39 d-f	41 f	51 c-g	50 fg	43 e-g	43 ef
N11034ol	45 a-f	46 a-d	58 ab	45 f-h	56 b-f	50 a-e	50 b-d
N11048ol	32 g-l	35 e-g	30 g	50 d-g	37 hi	32 h-k	36 h
N11051olJ	28 j-n	26 g-i	24 g-i	23 j-l	30 i-k	27 kl	26 i
N12006ol	41 b-g	52 ab	60 a	61 ab	64 ab	50 a-e	55 ab
N12007ol	46 a-f	53 ab	55 a-c	60 a-c	63 a-c	57 ab	55 a
N12008olCLSmT	52 ab	43 b-e	53 a-d	56 a-e	57 b-f	54 a-d	52 a-c
N12009olCLT	41 b-h	51 a-c	53 a-d	62 a	54 ef	55 a-c	52 a-c
N12010ol	45 a-f	51 a-c	59 ab	54 a-f	66 a	57 a	55 a
N12014ol	48 a-e	57 a	57 a-c	52 b-g	61 a-e	54 a-d	55 ab
N12015ol	50 a-c	51 a-c	58 a-c	54 a-f	64 ab	45 d-g	53 a-c
Mean	36	39	41	43	45	40	41
LSD_{0.05}³	11	11	8	10	8	9	5

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

2014 Results by Location

Table 14. Average of pod brightness¹ (Hunter L Score) for jumbo pods in 2014.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Average of all locations
	Dig I	Dig II	Dig I	Dig II			
Bailey	41.89 b-f ²	45.83 b-d	39.71 b-f	47.87 a-c	44.30 a	42.79 a-e	43.73 ab
Sugg	41.48 c-g	46.87 a-d	40.82 a-e	48.99 a-c	42.40 b-g	41.74 c-e	43.71 ab
Wynne	41.54 b-g	47.78 a-c	39.17 d-f	47.96 a-c	43.23 a-f	42.36 b-e	43.67 ab
Sullivan	41.92 b-f	48.06 a-c	41.49 a-c	47.69 a-c	43.73 ab	42.31 b-e	44.20 ab
Spain	39.10 h	40.41 e	38.68 ef	46.85 a-c	39.60 j	40.47 e	40.85 c
07030-1-10-1	40.64 f-h	44.72 d	37.80 f	45.52 cd	39.83 ij	41.71 c-e	41.70 bc
07036-1-2-1	42.32 a-f	48.26 a-c	38.88 ef	46.80 a-c	41.81 d-h	42.60 a-e	43.44 a-c
N09037ol	43.19 ab	47.21 a-d	39.29 c-f	49.79 a-c	43.11 a-f	43.53 a-c	44.35 ab
N09039olF	43.66 a	48.29 a-c	40.07 a-f	47.00 a-c	42.52 a-g	43.50 a-c	44.17 ab
N09042olF	42.91 a-c	46.79 a-d	42.16 a	41.96 d	41.59 f-i	44.17 ab	43.26 a-c
N10043olJ	40.90 d-g	44.60 d	40.05 a-f	48.72 a-c	40.21 h-j	43.17 a-d	42.94 a-c
N10046ol	42.49 a-d	48.07 a-c	40.28 a-e	50.68 ab	43.38 a-f	43.17 a-d	44.68 a
N10047ol	42.61 a-c	47.55 a-c	41.19 a-d	49.34 a-c	42.73 a-f	44.78 a	44.70 a
N10051ol	42.10 a-f	47.33 a-d	40.18 a-e	49.82 a-c	43.56 a-e	42.38 b-e	44.22 ab
N10066olSmT	40.02 gh	47.48 a-c	41.40 a-d	50.39 ab	42.72 a-f	42.11 b-e	44.02 ab
N10078olJC	40.01 gh	47.34 a-d	39.59 b-f	48.18 a-c	43.23 a-f	43.01 a-d	43.56 ab
N10080olJCL	41.29 c-g	48.46 ab	40.45 a-e	48.64 a-c	43.65 a-c	42.19 b-e	44.11 ab
N10082olJC	42.18 a-f	48.42 ab	39.87 b-f	49.11 a-c	42.98 a-f	42.93 a-d	44.25 ab
N11020olJ	42.22 a-f	48.40 ab	41.68 ab	50.38 ab	42.56 a-g	42.48 a-e	44.62 a
N11028ol	41.70 b-f	46.79 a-d	41.49 a-c	50.05 ab	43.22 a-f	44.31 ab	44.59 a
N11034ol	41.73 b-f	47.64 a-c	41.20 a-d	48.81 a-c	43.32 a-f	41.03 de	43.95 ab
N11048ol	41.56 b-g	46.25 a-d	41.36 a-d	48.88 a-c	42.64 a-g	42.80 a-d	43.91 ab
N11051olJ	42.20 a-f	48.11 a-c	40.75 a-e	47.57 a-c	42.34 b-g	42.98 a-d	43.99 ab
N12006ol	40.78 e-h	48.50 ab	39.98 a-f	50.89 a	41.89 c-h	41.79 c-e	43.97 ab
N12007ol	41.25 c-g	47.78 a-c	40.75 a-e	49.51 a-c	41.79 e-h	42.06 b-e	43.86 ab
N12008olCLSmT	41.53 b-g	48.51 ab	41.38 a-d	47.31 a-c	42.97 a-f	43.06 a-d	44.13 ab
N12009olCLT	42.11 a-f	48.65 a	41.60 ab	48.61 a-c	43.59 a-d	42.35 b-e	44.48 a
N12010ol	42.41 a-e	47.17 a-d	41.33 a-d	48.20 a-c	42.66 a-g	42.34 b-e	44.02 ab
N12014ol	42.92 a-c	47.77 a-c	41.68 ab	46.46 bc	42.74 a-f	43.46 a-c	44.17 ab
N12015ol	41.99 a-f	45.59 cd	40.01 a-f	45.70 cd	40.90 g-j	42.41 b-e	42.76 a-c
Mean	41.75	47.15	40.47	48.25	42.50	42.66	43.80
LSD_{0.05}³	1.68	2.75	2.28	4.31	1.80	2.32	2.67

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

2014 Results by Location

Table 15. Average of pod brightness¹ (Hunter L Score) for fancy pods in 2014.

Variety or Line	Suffolk, VA		Martin Co., NC		Rocky Mount, NC	Bladen, NC	Average of all locations
	Dig I	Dig II	Dig I	Dig II			
Bailey	41.80 a-c ²	46.49 b-f	40.05 a-c	47.90 a-f	42.24 a-c	42.86 a-e	43.55 a-c
Sugg	41.29 a-e	46.55 b-e	40.09 a-c	45.50 d-f	41.32 a-d	42.26 a-f	42.83 a-c
Wynne	40.38 b-e	46.34 b-f	39.97 a-c	47.24 b-f	41.04 a-d	42.50 a-f	42.91 a-c
Sullivan	41.57 a-d	47.22 a-d	40.23 a-c	46.45 c-f	41.28 a-d	42.30 a-f	43.17 a-c
Spain	37.50 f	42.16 h	38.85 a-c	44.32 f	37.43 f	40.42 e-g	40.11 d
07030-1-10-1	39.50 ef	43.91 gh	38.04 cd	45.30 ef	40.11 b-f	42.47 a-f	41.55 cd
07036-1-2-1	40.14 c-e	45.84 b-g	38.65 b-d	46.31 c-f	38.27 ef	40.52 d-g	41.62 b-d
N09037ol	40.15 c-e	44.57 fg	38.34 cd	47.95 a-f	40.66 a-e	42.12 a-f	42.30 a-d
N09039olF	41.68 a-d	46.65 a-e	41.20 a-c	49.03 a-e	40.62 a-e	43.48 ab	43.77 a-c
N09042olF	42.41 a	46.45 b-f	40.93 a-c	48.85 a-e	42.58 a-c	43.92 a	44.19 a-c
N10043olJ	41.67 a-d	44.84 e-g	39.14 a-c	45.18 ef	39.09 d-f	40.65 c-g	41.76 b-d
N10046ol	40.75 a-e	45.56 c-g	40.05 a-c	50.69 ab	41.19 a-d	42.02 a-f	43.37 a-c
N10047ol	41.37 a-e	45.25 d-g	40.88 a-c	48.46 a-e	41.34 a-d	42.51 a-f	43.30 a-c
N10051ol	41.56 a-d	46.08 b-f	41.20 a-c	48.51 a-e	42.81 ab	41.59 a-g	43.62 a-c
N10066olSmT	41.87 a-c	45.81 b-g	39.67 a-c	49.16 a-d	41.47 a-d	40.30 fg	43.10 a-c
N10078olJC	39.93 c-e	45.77 b-g	40.54 a-c	47.45 a-f	41.21 a-d	43.14 a-c	43.00 a-c
N10080olJCL	39.71 de	46.61 a-e	35.26 d	50.20 a-c	42.20 a-c	40.94 c-g	42.49 a-d
N10082olJC	40.04 c-e	46.45 b-f	39.53 a-c	47.70 a-f	42.12 a-c	42.24 a-f	43.01 a-c
N11020olJ	42.21 ab	46.17 b-f	40.16 a-c	47.63 a-f	39.90 c-f	40.56 d-g	42.77 a-d
N11028ol	40.70 a-e	45.80 b-g	40.82 a-c	50.09 a-c	42.06 a-c	42.40 a-f	43.65 a-c
N11034ol	41.42 a-e	46.02 b-f	42.08 ab	48.65 a-e	42.49 a-c	39.48 g	43.36 a-c
N11048ol	40.44 a-e	45.86 b-g	39.54 a-c	47.75 a-f	40.83 a-e	41.93 a-g	42.72 a-d
N11051olJ	41.32 a-e	47.03 a-d	39.36 a-c	45.89 d-f	41.37 a-d	41.73 a-g	42.78 a-d
N12006ol	41.16 a-e	48.56 a	39.78 a-c	50.13 a-c	42.03 a-c	41.33 b-g	43.83 a-c
N12007ol	40.88 a-e	46.96 a-d	41.99 ab	51.40 a	42.85 a	43.45 ab	44.59 a
N12008olCLSmT	41.45 a-e	47.61 ab	40.09 a-c	47.76 b-f	42.60 a-c	41.61 a-g	43.35 a-c
N12009olCLT	41.09 a-e	47.38 a-c	40.92 a-c	47.56 a-f	41.81 a-c	41.54 a-g	43.38 a-c
N12010ol	41.55 a-d	46.61 a-e	42.23 a	49.16 a-e	43.20 a	42.96 a-d	44.28 ab
N12014ol	42.34 ab	46.25 b-f	39.71 a-c	47.95 a-f	42.32 a-c	42.86 a-e	43.57 a-c
N12015ol	41.28 a-e	47.01 a-d	39.45 a-c	49.09 a-e	42.49 a-c	41.62 a-g	43.49 a-c
Mean	40.97	46.12	39.96	47.95	41.36	41.92	43.05
LSD_{0.05}³	2.01	1.98	3.50	4.11	2.71	2.50	2.72

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.

2014 Results by Location

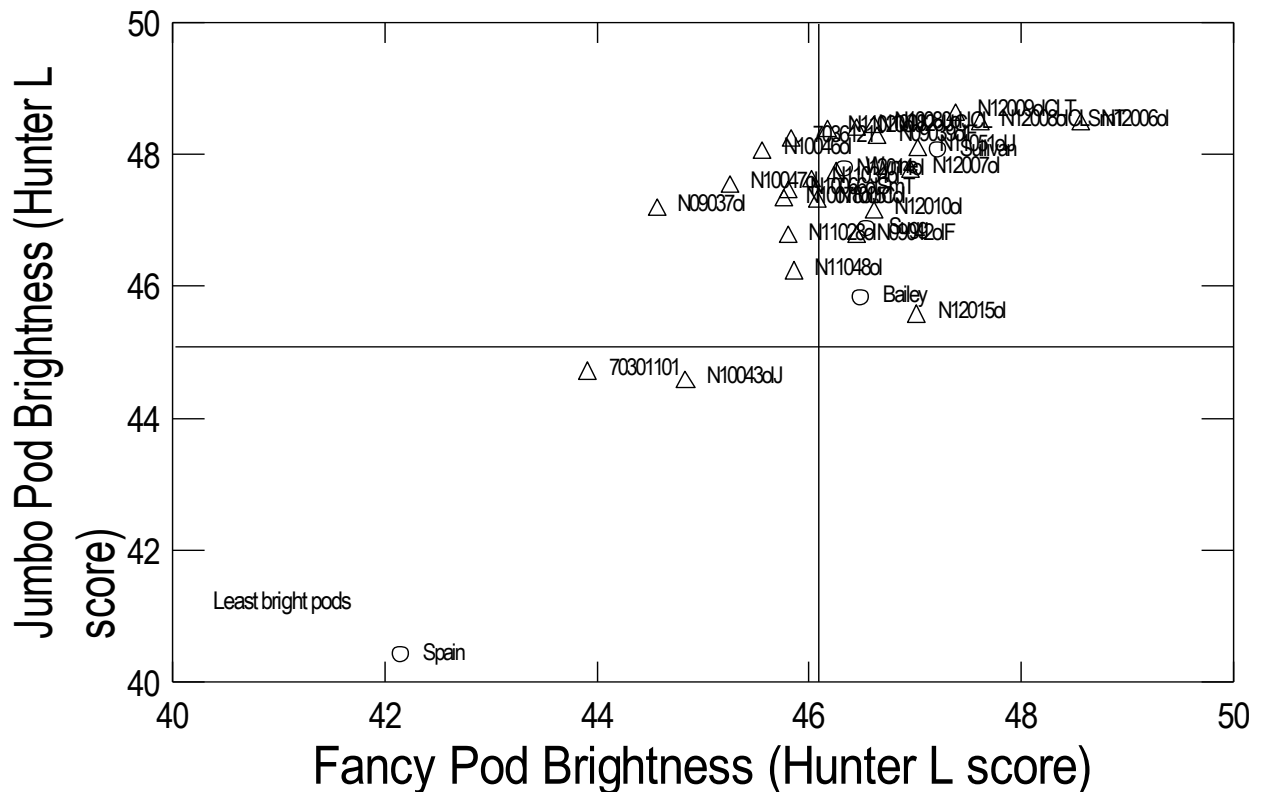


Figure 2. Brightness of jumbo and fancy pods of Digging Date II at Tidewater AREC, Suffolk, VA, in 2014. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 30 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location and digging date.

2014 Results by Location

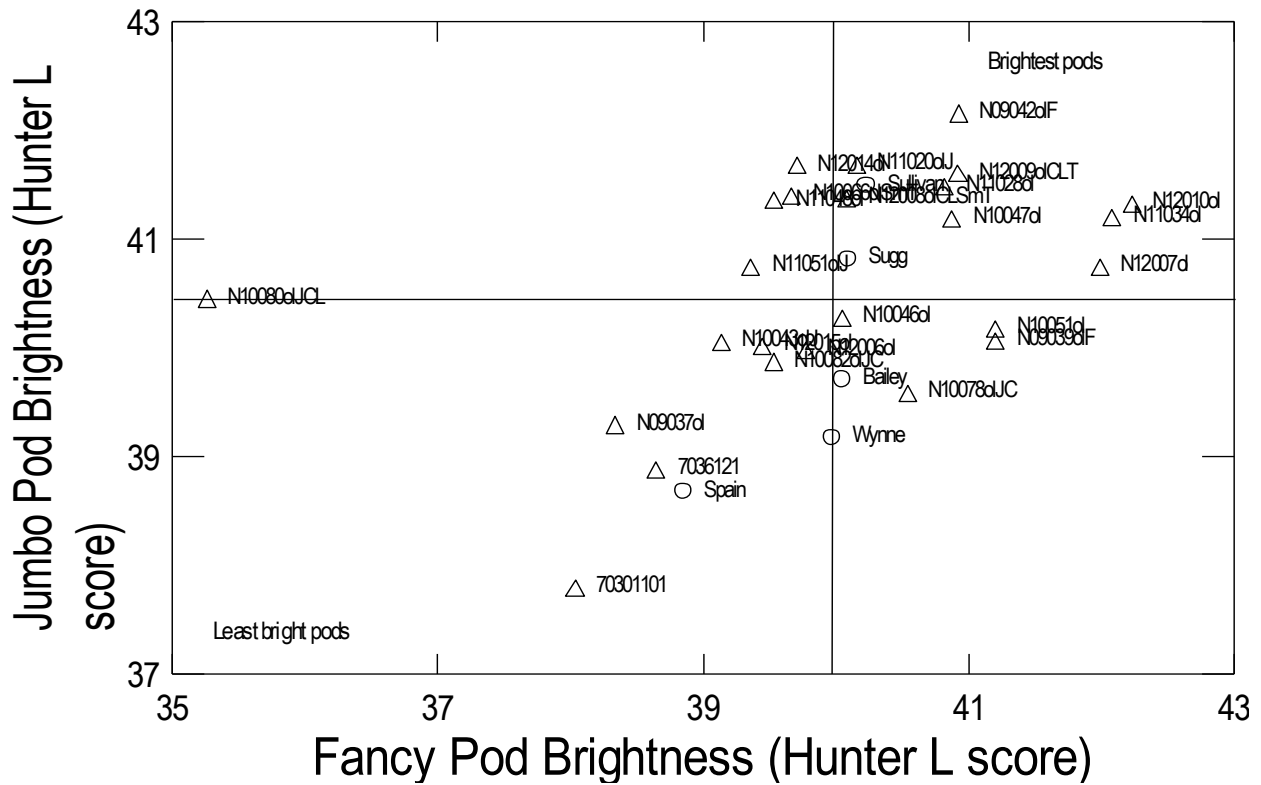


Figure 3. Brightness of jumbo and fancy pods of Digging Date I at Martin Co., NC, in 2014. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 30 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location and digging date.

2014 Results by Location

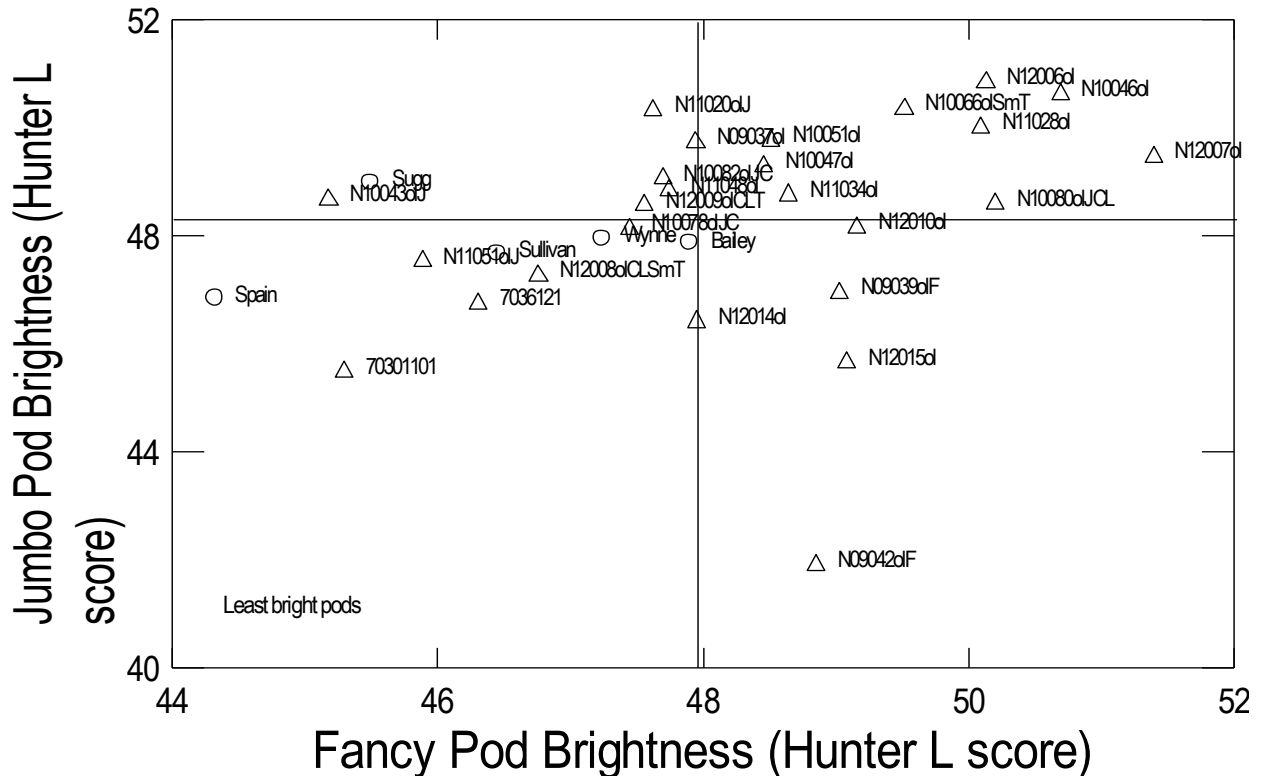


Figure 4. Brightness of jumbo and fancy pods of Digging Date II at Martin Co., NC, in 2014. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 30 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location and digging date.

2014 Results by Location

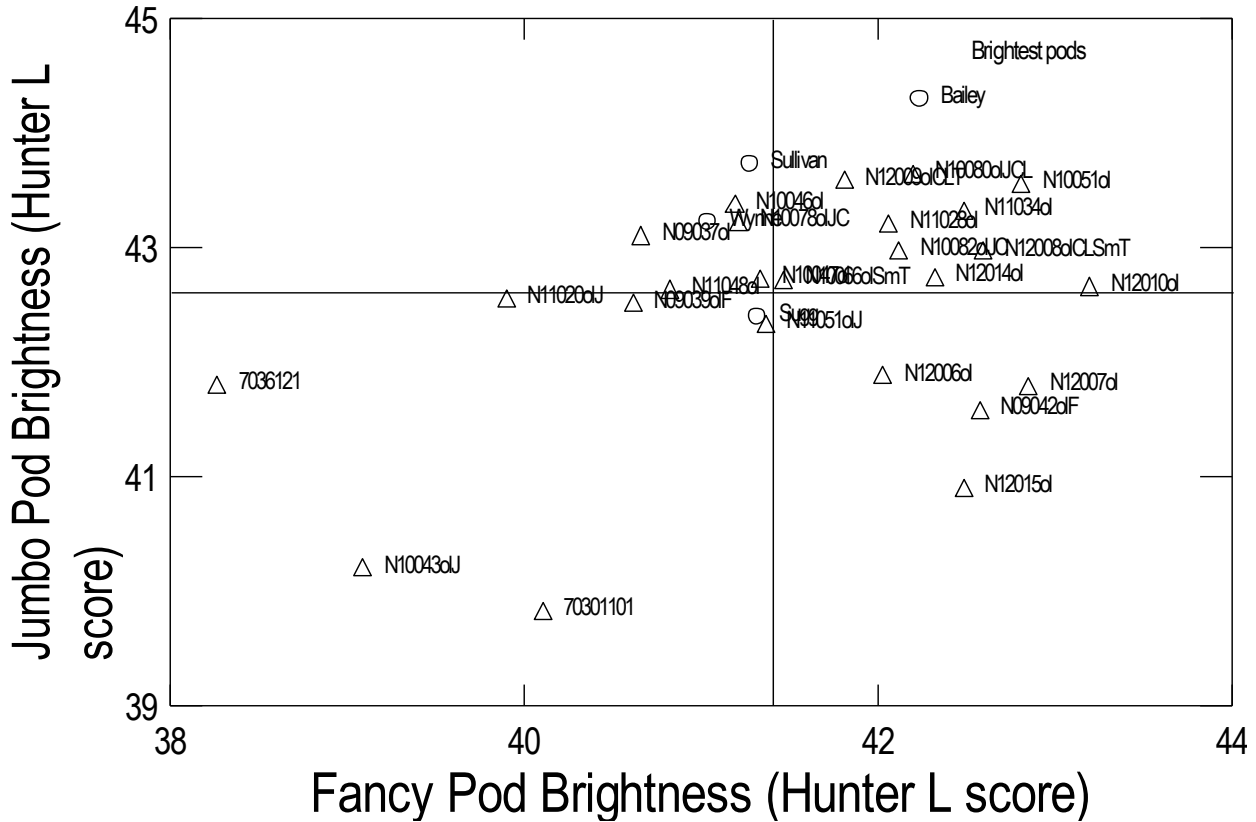


Figure 5. Brightness of jumbo and fancy pods at Rocky Mount, NC, in 2014. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 30 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location.

2014 Results by Location

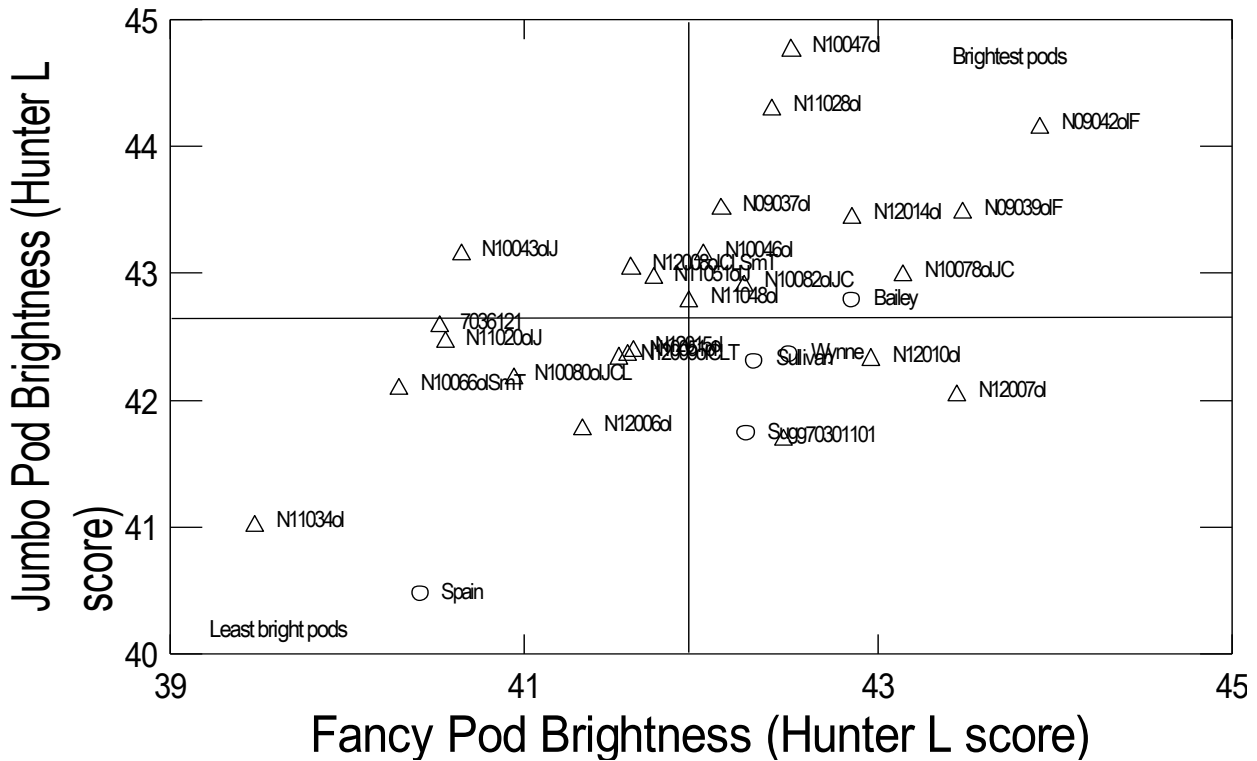


Figure 6. Brightness of jumbo and fancy pods at Bladen Co., NC, in 2014. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 30 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness at this location.

2014 Results by Location

RESULTS – YIELD AND GRADE BY LOCATION

Table 16. Performance of genotypes at Tidewater AREC (Suffolk), VA, in 2014. Dig I averages of two replicated plots planted on 7 May, dug on 18 September, and combined on 28 September.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% Super ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	1.0	0.9	71 kl ²	9.2	32 a-e	8 i-l	1.2	2.5	0.2	70 b-g	73 b-g	18.24 c-h	4645 b-h	848 b-i
Sugg	1.0	0.9	80 h-j	8.8	30 b-e	7 kl	1.1	2.0	0.4	70 b-g	73 c-g	18.28 c-h	4118 f-i	753 h-j
Wynne	1.1	1.2	94 a-d	7.9	31 a-e	18 e-g	0.9	1.7	0.1	70 b-g	73 c-h	18.42 b-g	4128 f-i	760 h-j
Sullivan	0.5	1.1	81 g-j	9.1	34 a-c	15 f-i	0.9	1.8	0.1	72 a-d	74 a-d	18.82 a-d	4036 g-i	761 h-j
Spain	1.1	1.3	97 a	8.1	26 ef	18 e-g	0.5	3.2	0.9	63 h	67 j	16.51 i	3696 i	611 j
07030-1-10-1	0.6	1.0	97 a	9.2	20 f	38 a	0.8	1.1	1.3	69 e-g	72 f-i	18.14 d-h	4703 b-h	851 b-i
07036-1-2-1	1.7	0.9	93 a-e	9.7	28 c-e	31 b	1.7	1.0	1.3	71 a-e	75 a	19.04 ab	4236 e-i	804 f-i
N09037oI	0.7	0.9	96 ab	8.5	32 a-e	17 e-g	0.6	2.0	0.0	69 b-g	72 f-i	18.14 d-h	4649 b-h	847 c-i
N09039oIF	0.8	0.9	73 j-l	8.8	32 a-e	2 l	0.7	3.5	0.0	68 e-g	73 d-i	17.79 gh	5235 a-c	931 a-g
N09042oIF	0.7	1.1	65 l	9.6	32 a-e	3 l	1.0	2.2	0.2	70 b-g	73 c-g	18.15 d-h	4979 a-e	904 a-h
N10043oIJ	1.0	1.5	97 a	9.0	26 ef	29 bc	0.5	1.2	1.0	69 c-g	72 g-i	18.11 e-h	3946 hi	714 ij
N10046oI	1.1	0.8	95 a-c	8.4	35 a-c	27 b-d	0.5	1.1	0.3	73 a	75 ab	19.26 a	5253 a-c	1012 a-c
N10047oI	0.7	1.1	93 a-e	7.9	38 a	20 d-f	1.0	1.5	0.6	71 a-f	74 a-e	18.76 a-e	4860 a-g	912 a-h
N10051oI	0.9	1.0	88 b-g	9.1	38 a	15 f-h	0.8	1.2	0.1	72 a-c	74 a-d	18.87 a-c	5087 a-d	961 a-f
N10066oISmT	0.5	1.3	88 b-g	8.5	34 a-d	9 h-l	0.4	2.0	0.3	69 e-g	71 hi	17.81 gh	4059 g-i	723 ij
N10078oIJC	0.3	1.1	90 a-f	9.5	27 d-f	13 g-k	0.8	2.4	0.5	68 g	71 i	17.69 h	4557 c-h	807 e-i
N10080oIJCL	0.7	1.0	87 c-h	10.9	31 a-e	14 f-k	0.6	1.9	0.6	70 b-g	73 c-g	18.28 c-h	4541 c-i	830 d-i
N10082oIJC	0.5	1.4	87 c-h	8.4	28 c-e	12 g-k	0.7	2.2	0.3	69 d-g	72 f-i	17.92 f-h	4509 c-i	808 e-i
N11020oIJ	1.2	1.1	96 ab	8.3	30 b-e	23 c-e	1.3	1.9	0.2	69 d-g	72 e-i	18.27 c-h	4642 b-h	848 b-i
N11028oI	1.7	1.3	84 f-i	6.9	36 ab	8 j-l	1.8	2.3	0.3	68 fg	73 d-i	18.12 d-h	4201 e-i	761 h-j
N11034oI	1.9	0.9	68 l	7.6	34 a-d	2 l	1.6	3.0	0.1	69 b-g	74 a-d	18.29 c-h	4654 b-h	851 b-i
N11048oI	1.1	0.9	93 a-e	7.2	30 b-e	18 e-g	1.0	2.0	0.6	69 b-g	73 c-h	18.23 c-h	4358 d-i	794 f-i
N11051oIJ	0.9	0.8	91 a-f	7.4	30 b-e	22 de	1.4	1.5	0.5	70 b-g	73 c-g	18.47 b-g	4266 d-i	788 g-i
N12006oI	0.9	0.9	78 i-k	9.2	34 a-d	12 g-k	0.9	1.8	0.7	70 b-g	73 b-f	18.35 b-h	4293 d-i	788 g-i
N12007oI	0.9	0.8	85 e-i	8.7	35 a-c	14 f-j	1.2	2.3	0.2	69 b-g	73 c-h	18.33 c-h	4961 a-f	910 a-h
N12008oICLSmT	0.3	0.7	83 f-i	9.4	36 ab	14 f-k	0.8	2.1	0.1	71 a-f	74 a-e	18.61 a-f	5451 ab	1015 ab
N12009oICLT	1.4	0.6	83 f-i	7.0	36 ab	13 g-k	1.8	2.0	0.5	70 b-g	74 a-c	18.66 a-e	5328 a-c	994 a-d
N12010oI	0.8	0.7	81 g-j	7.6	34 a-c	14 f-j	1.4	2.2	0.2	70 b-g	74 a-e	18.54 b-f	5249 a-c	973 a-e
N12014oI	0.7	0.9	86 d-i	7.0	38 a	12 g-k	1.4	2.5	0.7	69 b-g	74 a-d	18.45 b-g	5574 a	1028 a
N12015oI	1.0	0.9	70 l	8.4	33 a-e	3 l	0.9	2.2	0.2	72 ab	75 a	18.67 a-e	4701 b-h	877 a-i
Mean	0.9	1.0	85	8.5	32	15	1.0	2.0	0.4	70	73	18.31	4630	849
LSD_{0.05}³	1.1	0.5	8	2.6	7	6.8	1.3	1.0	0.8	3	2	0.01	846	167

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.

2014 Results by Location

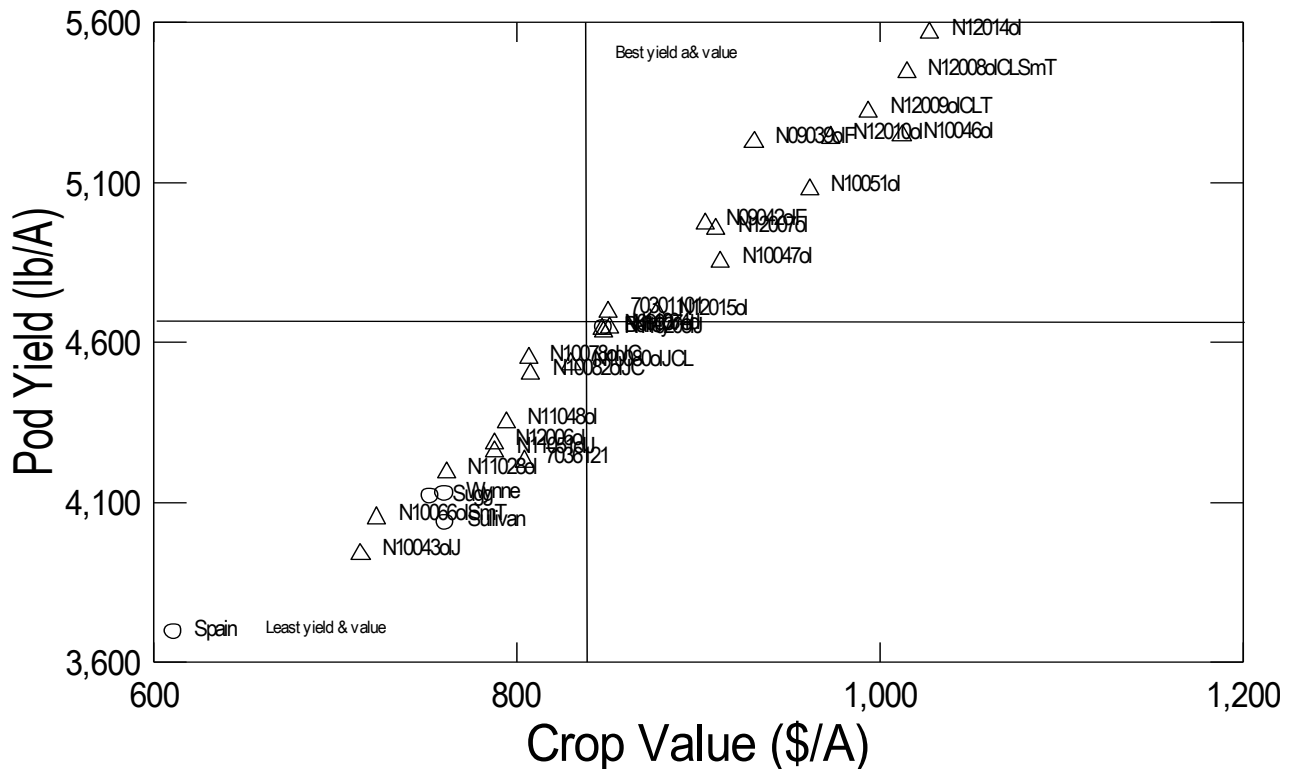


Figure 7. Summary of pod yield and crop value at Tidewater AREC (Suffolk), VA, Digging Date I in 2014. Vertical bar represents mean crop value and horizontal bar mean pod yield of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2014 Results by Location

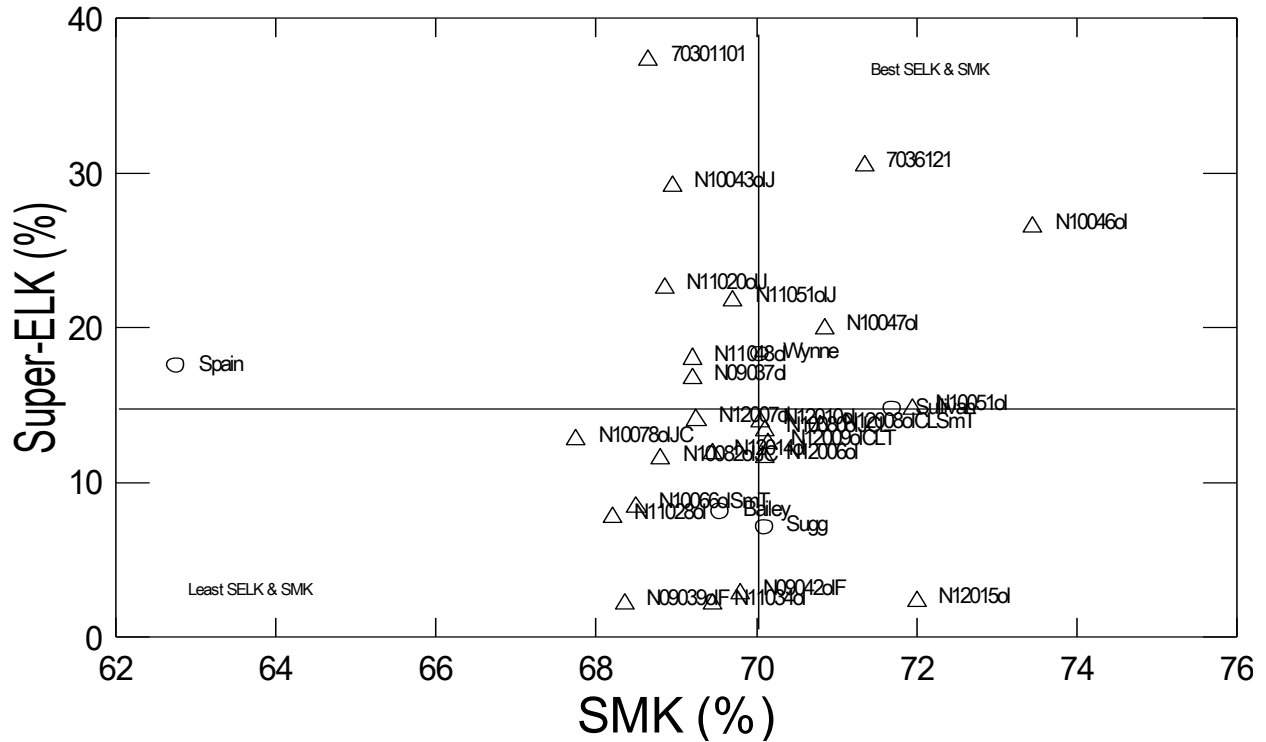


Figure 8. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Tidewater AREC (Suffolk), VA, Digging Date I in 2014. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 36 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

2014 Results by Location

Table 17. Performance of genotypes at Tidewater AREC (Suffolk), VA in 2014. Dig II averages of two replicated plots planted on 7 May, dug on 6 October, and combined on 10 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% Super ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.3	1.6	78 h-j ²	7.5	37 d-g	11 l-o	1.6	2.2	0.1	69 b-f	73 b-f	18.37 b-f	5343 a-e	981 a-g
Sugg	0.5	1.3	80 f-i	6.3	40 a-e	11 l-o	2.7	1.4	0.2	70 a-f	74 a-d	18.78 a-d	4307 fg	808 h-j
Wynne	0.3	1.4	99 a	7.5	33 g-k	18 g-l	1.4	2.0	0.4	68 ef	72 f-h	18.04 e-g	4677 c-g	843 f-i
Sullivan	0.3	1.4	83 e-h	6.6	39 b-f	15 i-l	1.7	2.1	0.3	69 b-f	73 a-f	18.48 a-f	5395 a-d	997 a-f
Spain	0.4	1.1	95 ab	7.3	28 k-m	19 f-k	1.1	2.3	0.8	64 g	68 i	17.02 h	4839 a-f	819 g-j
07030-1-10-1	0.9	1.7	92 b-d	6.4	19 o	33 a-c	2.3	2.2	0.6	65 g	70 hi	17.53 gh	3837 g	674 j
07036-1-2-1	1.3	0.9	97 ab	7.2	22 no	41 a	1.0	0.8	0.5	72 a-c	74 a-d	19.03 ab	4456 e-g	848 e-h
N09037ol	0.5	2.4	97 ab	7.1	35 f-j	22 e-i	1.3	2.0	0.0	68 d-f	72 f-h	18.23 c-g	4794 a-f	874 c-h
N09039olF	0.4	1.9	70 l	6.5	39 b-f	0.6	1.2	2.7	0.0	68 d-f	72 c-g	17.93 fg	5053 a-f	906 b-h
N09042olF	0.6	1.9	56 m	7.5	39 b-f	4 n-p	1.1	2.6	0.1	70 a-f	74 a-e	18.34 b-f	4797 a-f	880 c-h
N10043olJ	0.6	2.1	99 a	6.8	23 m-o	37 ab	0.9	1.7	1.2	67 fg	71 gh	17.92 fg	3803 g	678 ij
N10046ol	0.4	1.5	93 a-c	7.0	36 d-h	26 c-g	1.5	1.3	0.3	72 a-c	75 ab	19.11 a	5309 a-e	1015 a-e
N10047ol	0.4	1.5	91 b-d	6.9	30 i-l	29 b-e	1.7	2.4	0.4	69 c-f	73 a-f	18.51 a-f	5014 a-f	930 a-h
N10051ol	0.5	1.4	91 b-d	6.6	38 b-f	18 f-k	2.0	1.3	0.1	71 a-e	74 a-c	19.03 ab	5336 a-e	1016 a-d
N10066olSmT	0.3	1.5	87 c-e	6.6	38 b-f	15 i-l	1.4	1.7	0.4	69 b-f	72 d-g	18.33 b-f	4720 b-g	865 d-h
N10078olJC	0.4	1.0	90 b-e	7.2	32 h-l	24 d-h	1.2	1.6	0.3	70 a-f	73 c-g	18.47 b-f	5614 ab	1037 a-c
N10080olJCL	0.2	1.4	86 c-f	6.8	30 i-l	21 e-j	2.6	1.8	0.5	69 c-f	74 a-e	18.53 a-f	5473 a-c	1013 a-e
N10082olJC	0.2	0.9	92 b-d	7.2	35 e-i	22 e-i	1.2	1.5	0.4	71 a-d	74 a-d	18.89 a-c	5711 a	1079 a
N11020olJ	3.7	1.7	96 ab	6.7	30 j-l	31 b-d	0.9	1.3	0.5	70 a-f	73 c-g	18.57 a-f	4828 a-f	896 b-h
N11028ol	0.3	1.7	85 d-g	6.5	40 a-e	13 j-l	2.3	2.1	0.3	67 fg	72 e-g	18.18 d-g	5294 a-e	963 a-h
N11034ol	0.4	1.8	71 j-l	6.9	43 ab	4 m-p	1.8	2.1	0.0	70 a-f	74 a-d	18.70 a-e	5420 a-d	1016 a-d
N11048ol	0.3	1.5	91 b-d	7.8	34 f-j	27 c-f	1.0	1.5	0.2	72 a-c	74 a-d	19.00 ab	5013 a-f	953 a-h
N11051olJ	0.3	1.6	92 b-d	6.4	27 l-n	31 b-d	2.3	1.7	0.2	69 b-f	73 a-f	18.67 a-e	4985 a-f	931 a-h
N12006ol	0.2	1.3	80 f-i	8.1	38 c-g	15 i-l	0.5	1.3	0.2	72 a	74 a-c	18.94 ab	5117 a-f	969 a-h
N12007ol	0.5	1.3	77 h-l	7.6	40 a-e	16 h-l	1.7	1.2	0.0	72 ab	75 a	19.16 a	5004 a-f	959 a-h
N12008olCLSmT	0.5	1.3	74 i-l	6.3	37 d-g	12 k-n	2.3	2.3	0.2	68 d-f	73 b-f	18.36 b-f	5281 a-e	969 a-h
N12009olCLT	0.4	1.2	77 h-k	6.8	38 b-f	17 h-l	1.5	1.3	0.0	72 ab	75 a	19.15 a	5297 a-e	1015 a-e
N12010ol	0.7	1.5	78 g-i	6.9	43 a-c	13 k-m	2.1	1.3	0.1	71 a-e	74 a-d	18.96 ab	4550 d-g	863 d-h
N12014ol	0.4	1.2	73 i-l	6.3	45 a	10 l-p	2.7	1.8	0.1	70 a-f	75 ab	18.96 ab	5560 a-c	1053 ab
N12015ol	0.2	1.1	70 kl	6.4	41 a-d	0.6	1.1	2.3	0.3	70 a-f	74 a-d	18.49 a-f	5570 a-c	1030 a-d
Mean	0.5	1.5	84	6.9	35	19	1.6	1.8	0.3	69	73	18.52	5013	929
LSD_{0.05}³	2.0	1.0	7	1.4	5	8.4	1.2	1.0	0.7	3	2	0.01	921	168

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.

2014 Results by Location

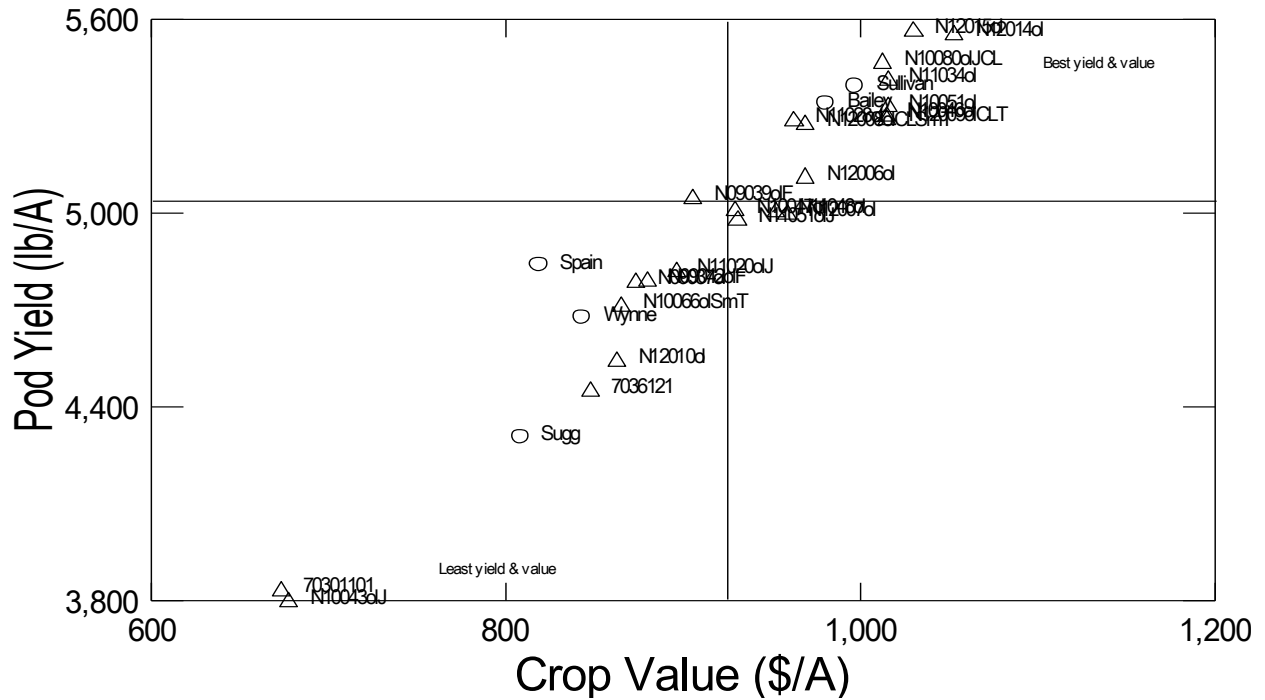


Figure 9. Summary of pod yield and crop value at Tidewater AREC (Suffolk), VA, Digging Date II in 2014. Vertical bar represents mean crop value and horizontal bar mean pod yield of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2014 Results by Location

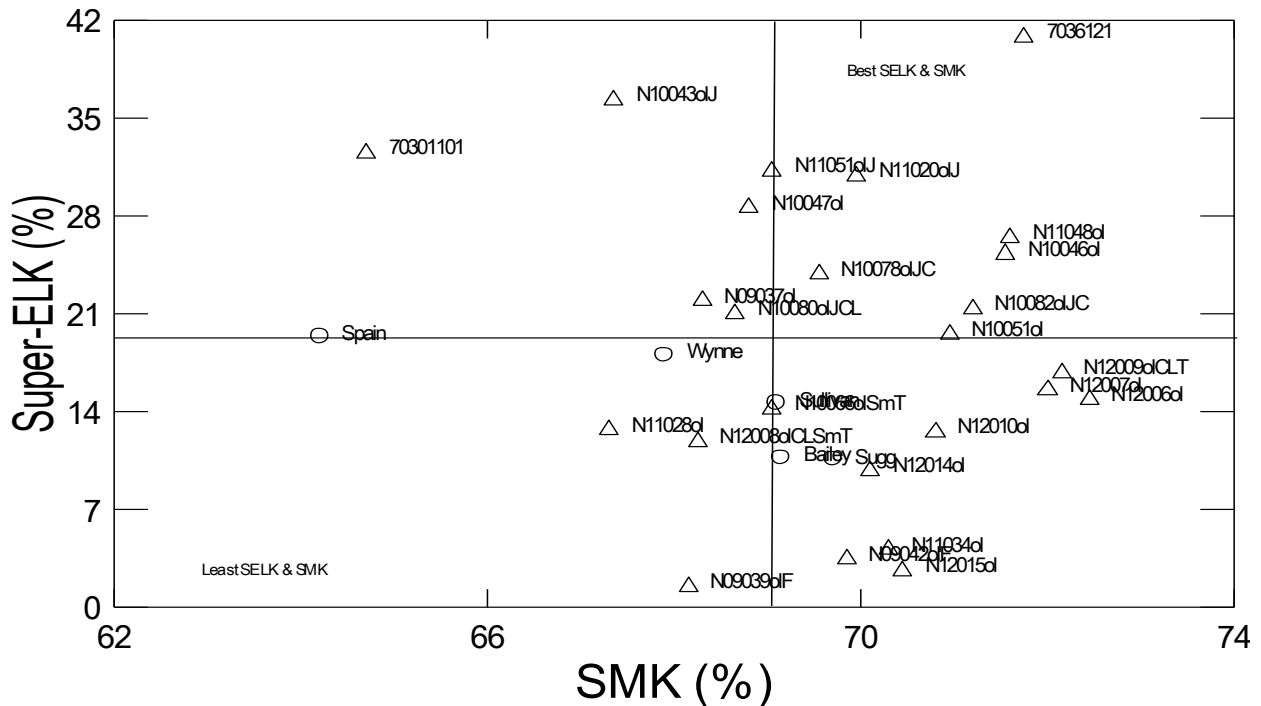


Figure 10. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Tidewater AREC (Suffolk), VA, Digging Date II in 2014. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

2014 Results by Location

Table 18. Performance of genotypes at Martin Co., NC, in 2014. Dig I averages of two replicated plots planted on 30 May, dug on 19 September, and combined on 29 September.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% Super ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	1.0	1.3	86 e-h ²	8.0	29 d-i	1 f-i	0.5	2.1	0.1	70 a	73 d-i	18.03 a	4066 e-j	734 b-e
Sugg	0.6	0.8	81 h-j	7.4	26 f-i	2 e-i	0.7	2.2	0.2	70 a	73 b-h	18.01 a	4189 d-j	755 b-e
Wynne	0.7	0.9	95 a-d	7.8	36 a-e	4 b-e	0.2	2.4	0.1	69 a	72 h-k	17.91 a	4367 b-i	784 a-e
Sullivan	0.8	1.0	88 d-h	7.8	33 b-g	3 c-h	1.0	1.9	0.0	70 a	73 d-i	18.19 a	4615 a-f	840 a-e
Spain	0.9	1.1	96 a-d	9.4	26 f-i	12 a	0.4	1.8	0.5	66 a	69 m	17.13 a	3973 f-j	681 c-e
07030-1-10-1	0.8	0.7	90 a-g	8.1	30 c-h	13 a	0.4	0.9	0.0	71 a	72 g-j	18.34 a	3777 h-j	693 b-e
07036-1-2-1	1.1	0.6	94 a-e	7.5	31 b-g	12 a	0.6	1.1	0.3	73 a	75 a	18.83 a	4406 b-i	830 a-e
N09037ol	0.5	1.2	93 a-e	8.2	34 a-g	4 b-e	0.6	1.1	0.1	70 a	72 i-l	18.04 a	3839 g-j	693 b-e
N09039olF	0.5	1.0	70 k	7.8	20 i	0 i	0.4	2.0	0.0	70 a	72 g-j	17.72 a	4413 b-h	782 a-e
N09042olF	0.9	1.3	70 k	7.8	27 f-i	1 g-i	0.5	2.1	0.0	70 a	72 f-j	17.89 a	4381 b-i	784 a-e
N10043olJ	1.1	1.2	98 a	7.7	34 a-g	11 a	0.2	1.8	0.1	69 a	71 j-l	18.00 a	3648 j	656 de
N10046ol	0.8	0.9	96 a-d	7.3	43 a	10 a	0.9	1.2	0.1	72 a	74 a-c	18.90 a	4707 a-e	891 a-c
N10047ol	0.7	0.9	97 a-c	7.2	40 ab	11 a	0.5	1.3	0.6	71 a	74 a-e	18.63 a	5248 a	978 a
N10051ol	0.8	0.9	94 a-e	8.0	37 a-d	2 d-i	0.9	2.3	0.1	69 a	72 f-j	18.04 a	4802 a-d	867 a-d
N10066olSmT	0.3	1.4	92 a-f	7.9	25 g-i	3 d-i	0.4	3.7	0.1	66 a	70 l	17.15 a	3750 ij	644 ef
N10078olJC	0.7	1.0	90 a-h	8.2	25 g-i	5 b-d	0.2	2.1	0.5	70 a	73 c-h	17.94 a	4257 c-j	764 a-e
N10080olJCL	0.6	1.3	90 a-h	7.9	29 d-i	3 c-h	0.6	2.1	0.0	70 a	73 d-i	18.09 a	4526 b-f	819 a-e
N10082olJC	0.6	1.0	93 a-e	8.1	25 g-i	4 c-g	0.5	2.4	0.3	69 a	73 e-j	10.10 b	4350 b-i	438 f
N11020olJ	0.4	1.6	98 ab	7.6	38 a-d	6 bc	0.3	1.8	0.1	68 a	70 l	17.73 a	4398 b-i	780 a-e
N11028ol	1.0	1.2	94 a-e	7.8	27 e-i	4 c-g	0.6	2.6	0.2	67 a	71 kl	17.38 a	4962 ab	862 a-d
N11034ol	0.8	1.1	75 jk	7.7	21 hi	1 hi	0.6	2.0	0.1	71 a	73 b-g	18.00 a	4451 b-g	801 a-e
N11048ol	0.4	0.7	96 a-d	7.8	33 b-g	7 b	0.5	1.9	0.1	71 a	73 c-h	18.27 a	4786 a-d	875 a-c
N11051olJ	1.0	0.9	95 a-d	7.6	34 a-g	12 a	1.1	1.9	0.1	70 a	73 b-h	18.39 a	4898 a-c	901 ab
N12006ol	0.4	0.9	89 c-h	8.0	35 a-f	4 c-f	0.6	2.4	0.1	70 a	73 a-f	18.28 a	4600 a-f	841 a-e
N12007ol	0.6	0.8	84 f-i	7.8	39 a-c	3 d-i	1.1	1.6	0.1	72 a	74 ab	18.66 a	4585 a-f	856 a-e
N12008olCLSmT	0.7	0.7	88 d-h	8.4	33 b-g	3 d-i	0.7	1.7	0.0	71 a	73 b-g	18.34 a	4169 d-j	764 a-e
N12009olCLT	0.7	0.9	89 b-h	7.1	43 a	4 c-f	1.5	2.0	0.0	71 a	74 ab	18.71 a	4693 a-e	878 a-c
N12010ol	0.4	0.4	82 g-j	7.7	38 a-c	4 b-e	1.3	1.8	0.1	72 a	75 a	18.77 a	4570 a-f	858 a-d
N12014ol	0.8	0.9	81 h-j	7.6	33 b-g	4 b-e	1.1	1.6	0.1	71 a	74 a-e	18.48 a	4201 d-j	777 a-e
N12015ol	1.3	0.8	76 i-k	7.8	21 i	1 hi	1.0	2.1	0.1	71 a	74 a-d	18.15 a	4354 b-i	790 a-e
Mean	0.7	1.0	88	7.8	31	5	0.6	1.9	0.1	69	73	17.87	4399	787
LSD_{0.05}³	0.4	0.6	9	0.8	9	3	0.7	1.2	0.4	16	1	0.41	660	214

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.

2014 Results by Location

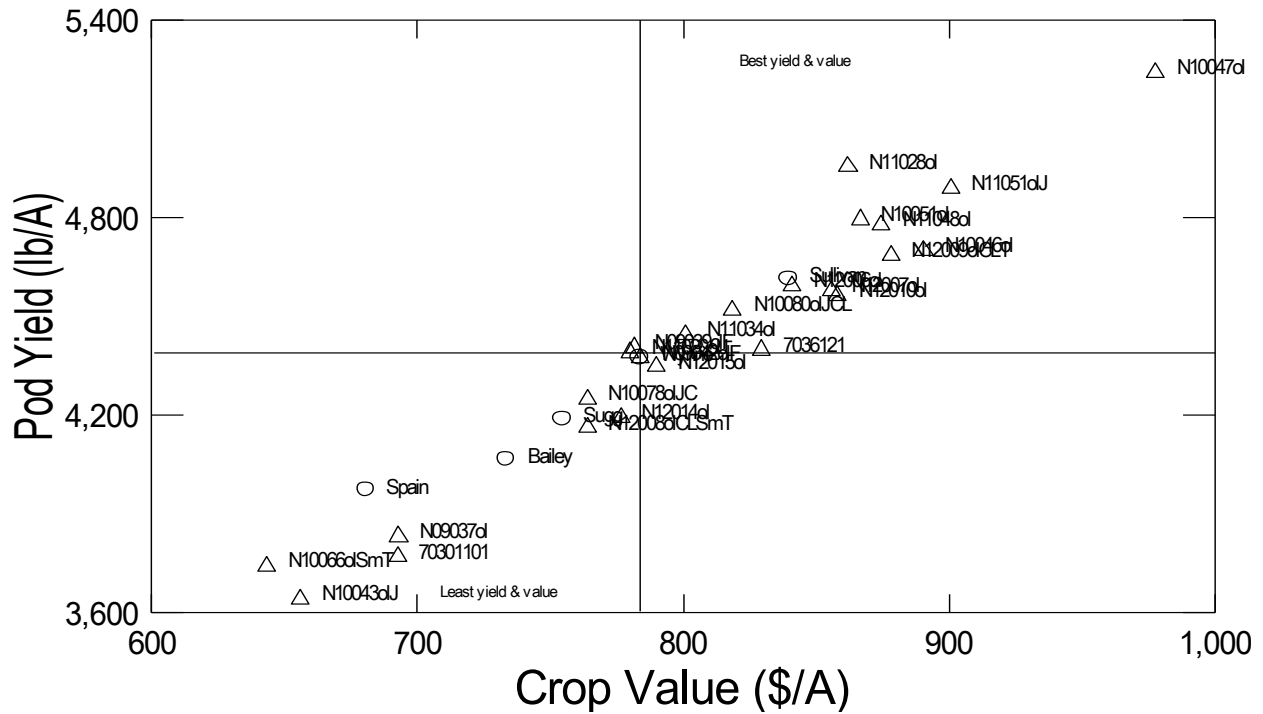


Figure 11. Summary of pod yield and crop value at Martin Co., NC, Digging Date I in 2014. Vertical bar represents mean crop value and horizontal bar mean pod yield of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2014 Results by Location

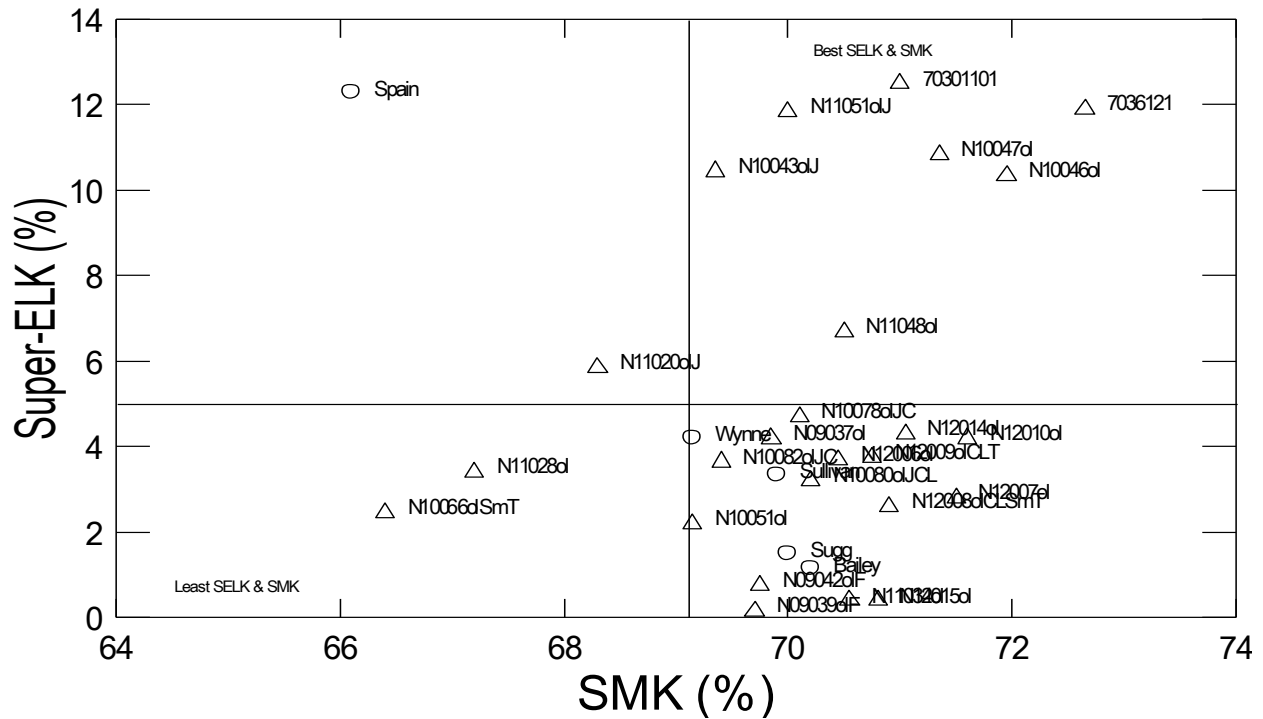


Figure 12. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Martin Co., NC, Digging Date I in 2014. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

2014 Results by Location

Table 19. Performance of genotypes at Martin Co., NC, in 2014. Dig II averages of two replicated plots planted on 30 May, dug on 19 October, and combined on 28 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% Super ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.6	1.2	78 h-j ²	6.7	40 b-f	16 jk	2.4	2.9	0.0	69 b-g	75 f-i	18.82 e-h	6022 a-g	1132 a-g
Sugg	0.3	1.5	81 g-i	6.9	39 b-g	19 g-k	3.1	2.4	0.0	70 b-f	76 a-g	19.24 a-f	5573 e-h	1072 d-h
Wynne	0.7	1.3	93 a-c	7.0	35 d-h	25 e-h	1.8	2.6	0.1	69 b-g	74 i	18.67 f-h	6122 a-g	1142 a-g
Sullivan	0.3	1.7	83 e-i	6.9	34 e-h	21 f-j	2.8	3.4	0.0	68 fg	74 hi	18.58 gh	6104 a-g	1135 a-g
Spain	0.6	0.8	91 a-e	7.9	26 i-k	35 bc	1.7	1.5	0.4	70 b-f	74 i	18.80 e-h	5609 d-h	1055 e-i
07030-1-10-1	0.5	0.8	94 a-c	7.6	17 l	48 a	2.2	1.3	0.3	71 a-f	75 f-i	19.18 a-f	5430 g-i	1041 f-i
07036-1-2-1	1.0	0.4	95 ab	6.9	26 i-k	34 bc	3.6	0.6	1.2	71 a-d	77 a	19.53 a	4754 i	925 i
N09037ol	0.9	1.0	92 a-d	7.0	33 f-i	29 c-e	1.7	2.9	0.0	70 b-g	74 g-i	18.87 d-h	5479 f-i	1031 g-i
N09039olF	0.6	1.6	83 e-i	7.4	50 a	6 lm	1.6	1.5	0.0	73 a	76 a-e	19.44 a-d	6025 a-g	1171 a-f
N09042olF	0.7	1.7	62 l	7.3	41 b-e	5 m	1.9	3.4	0.0	69 c-g	74 hi	18.45 h	5790 a-h	1068 d-h
N10043olJ	1.1	1.3	98 a	7.6	20 kl	47 a	2.1	1.3	0.1	72 a-d	75 d-i	19.35 a-e	5544 e-h	1073 d-h
N10046ol	0.8	1.1	93 a-c	7.2	36 d-h	29 c-e	2.1	1.8	0.1	72 a-c	76 a-f	19.46 a-c	5764 b-h	1121 a-g
N10047ol	0.3	1.3	94 a-c	7.0	30 h-j	33 b-d	2.2	2.8	0.3	70 b-f	75 b-h	19.03 a-g	6201 a-f	1180 a-e
N10051ol	0.7	1.0	92 a-e	7.1	36 d-h	27 d-f	2.9	1.7	0.3	71 a-f	76 a-g	19.36 a-e	6417 a-c	1242 a
N10066olSmT	0.6	1.0	91 a-e	7.1	39 b-g	20 g-j	1.8	2.1	0.0	71 a-e	75 d-i	19.10 a-g	5676 c-h	1084 c-h
N10078olJC	0.4	1.2	86 c-h	7.1	32 g-j	25 e-h	5.3	2.2	0.4	68 e-g	76 a-e	19.23 a-f	5777 a-h	1109 b-g
N10080olJCL	0.4	1.0	84 d-h	7.0	34 e-h	23 e-j	4.0	1.7	0.1	71 a-f	77 ab	19.51 a	5820 a-g	1134 a-g
N10082olJC	0.3	1.2	92 a-d	6.9	31 h-j	29 c-e	2.4	1.5	0.5	72 ab	76 a-c	19.46 ab	6107 a-g	1189 a-d
N11020olJ	0.3	1.1	98 a	7.3	25 jk	39 b	1.5	1.6	0.1	71 a-e	74 hi	19.08 a-g	6010 a-g	1147 a-g
N11028ol	0.3	1.4	87 b-h	6.8	42 b-d	13 kl	3.3	2.4	0.0	68 e-g	74 hi	18.68 f-h	6528 a	1219 ab
N11034ol	0.6	2.1	71 jk	6.9	45 ab	7 lm	3.4	1.9	0.1	71 a-f	76 a-f	19.22 a-f	5886 a-g	1130 a-g
N11048ol	0.3	1.2	89 b-g	7.2	37 c-h	26 d-g	2.2	2.4	0.5	71 a-e	76 a-f	19.23 a-f	6083 a-g	1170 a-f
N11051olJ	0.6	1.7	90 a-e	7.1	26 i-k	34 bc	3.1	2.1	0.3	69 b-g	75 e-i	19.01 a-h	6403 a-c	1217 ab
N12006ol	0.9	1.1	82 f-i	7.0	42 b-d	16 i-k	2.7	1.6	0.0	72 a-c	76 a-e	19.46 ab	5999 a-g	1167 a-f
N12007ol	0.8	0.9	79 h-j	6.9	42 b-d	13 kl	3.3	2.4	0.3	69 c-g	75 d-i	18.88 c-h	5047 hi	953 hi
N12008olCLSmT	0.5	1.1	85 c-h	7.1	35 d-h	24 e-h	2.8	2.7	0.1	69 d-g	74 hi	18.79 e-h	6288 a-e	1181 a-e
N12009olCLT	0.9	1.0	80 h-j	7.2	41 b-e	18 h-k	3.5	1.9	0.0	71 a-f	76 a-d	19.46 ab	6092 a-g	1184 a-e
N12010ol	0.5	1.5	82 f-i	7.0	36 c-h	23 e-i	4.1	2.3	0.0	69 d-g	75 c-h	19.10 a-g	6363 a-d	1214 a-c
N12014ol	0.2	1.5	75 i-k	6.9	36 d-h	20 g-j	4.3	3.1	0.4	67 g	75 f-i	18.68 f-h	5488 f-i	1023 g-i
N12015ol	0.4	1.3	66 kl	7.2	43 a-c	4 m	4.1	2.9	0.1	69 d-g	76 a-g	18.92 b-h	6465 ab	1223 ab
Mean	0.6	1.2	85	7.1	35	24	2.8	2.1	0.2	70	75	19.08	5895	1124
LSD_{0.05}³	0.5	0.6	9	0.5	7	7	1.7	1.1	0.5	3	1	0.01	755	131

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.

2014 Results by Location

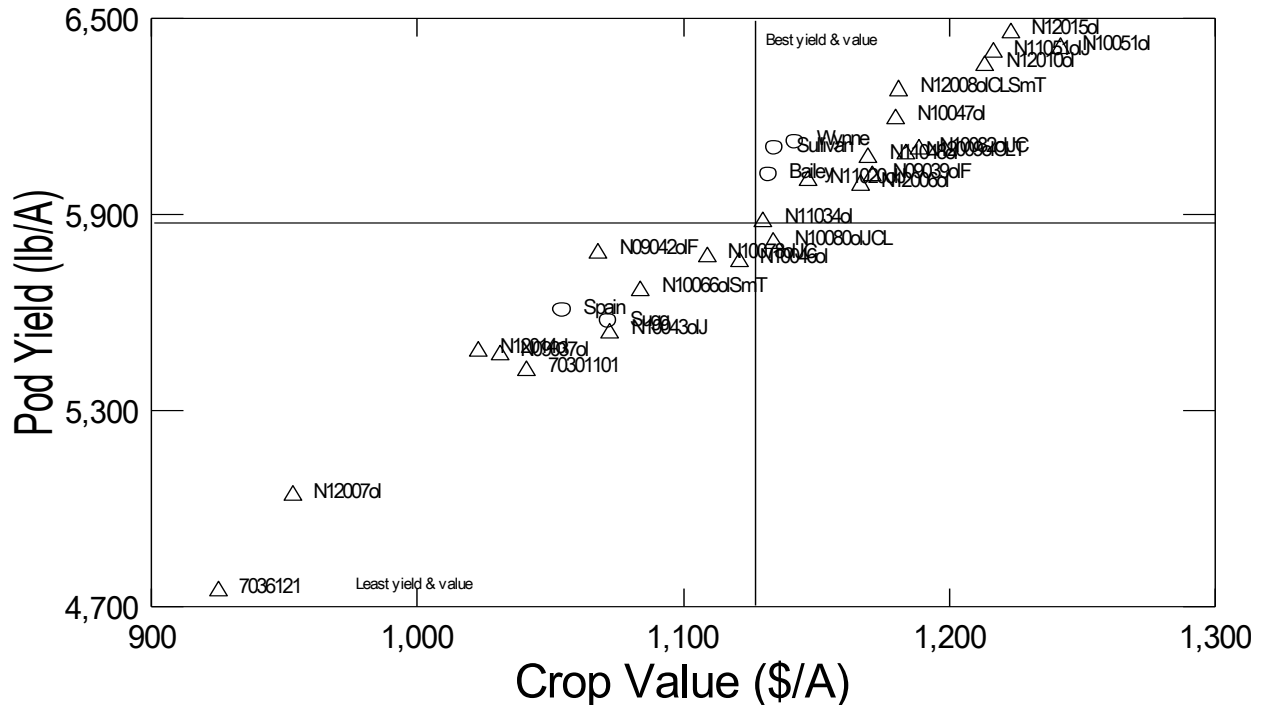


Figure 13. Summary of pod yield and crop value at Martin Co., NC, Digging Date II in 2014. Vertical bar represents mean crop value and horizontal bar mean pod yield of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location and digging date.

2014 Results by Location

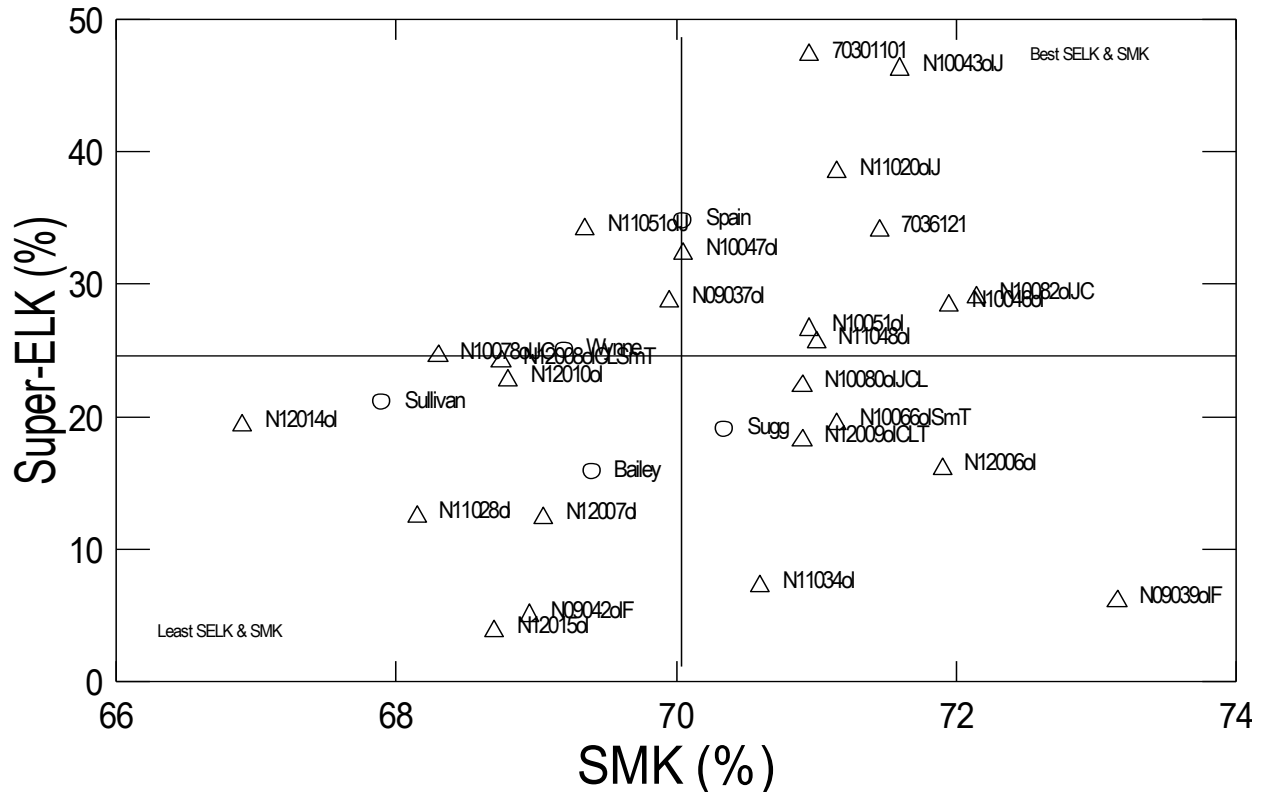


Figure 14. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Martin Co., NC, Digging Date II in 2014. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location and digging date.

2014 Results by Location

Table 20. Performance of genotypes at Rocky Mount, NC, in 2014. Averages of three replicated plots planted on 9 May, dug on 7 October, and combined on 22 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% Super ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.5	0.5	81 gh ²	6.0	40 a-d	9 l-o	3.8	1.2	0.4	70 a-d	76 a-e	19.18 b-g	5370 e-j	1030 d-h
Sugg	0.5	0.4	79 g-i	6.0	39 b-f	9 l-o	4.5	1.8	0.2	69 b-d	76 a-e	19.10 b-g	5387 e-i	1028 d-h
Wynne	0.5	0.6	96 a-c	5.9	34 fg	24 c-h	3.0	1.4	0.3	71 a-d	76 b-e	19.26 a-g	5255 f-j	1011 e-h
Sullivan	0.3	0.7	88 d-f	5.9	35 e-g	12 k-m	2.9	1.7	0.6	70 a-d	75 c-g	18.79 fg	5957 a-f	1119 a-f
Spain	0.6	1.0	96 a-c	6.0	24 i	29 b-e	3.6	1.3	1.5	65 e	72 h	17.98 h	4078 l	726 j
07030-1-10-1	0.5	0.4	96 a-c	5.8	19 j	43 a	3.7	0.8	0.0	70 a-d	75 d-g	19.27 a-f	5652 c-h	1089 a-g
07036-1-2-1	0.4	0.3	96 a-c	6.0	26 i	37 ab	3.1	0.9	0.7	73 a	77 a	19.79 a	6212 a-c	1230 a
N09037oI	0.4	0.4	99 ab	5.8	40 a-d	22 d-j	2.3	1.0	0.1	72 ab	76 b-e	19.49 a-d	5394 e-i	1051 c-g
N09039oIF	0.3	0.6	75 h-j	6.1	34 fg	1 o	2.0	1.6	0.1	73 a	76 a-c	19.08 c-g	5744 b-h	1096 a-g
N09042oIF	0.3	0.6	60 k	6.1	34 fg	2 o	3.4	1.1	0.3	70 a-d	75 c-g	18.85 e-g	5845 a-g	1102 a-g
N10043oIJ	0.5	0.9	99 ab	5.9	27 hi	32 bc	3.3	1.3	0.5	69 b-d	74 e-g	18.93 d-g	5111 h-k	967 g-i
N10046oI	0.5	0.7	96 a-c	5.8	32 gh	31 b-d	3.4	1.2	0.2	71 a-d	75 c-f	19.39 a-f	5576 c-h	1081 b-g
N10047oI	0.5	0.8	97 a-c	5.8	35 d-g	28 b-f	2.8	1.0	0.6	72 ab	77 a-c	19.59 a-c	5671 c-h	1111 a-f
N10051oI	0.4	0.7	88 d-f	5.9	42 ab	13 j-m	3.7	1.2	0.0	71 a-d	76 b-e	19.34 a-f	6141 a-d	1186 a-c
N10066oISmT	0.4	0.7	94 a-d	5.9	39 b-f	14 i-m	2.8	1.6	0.3	70 a-d	75 d-g	18.87 e-g	4527 kl	855 ij
N10078oIJC	0.4	0.6	93 b-e	5.9	34 fg	21 e-k	3.5	1.4	0.4	71 a-d	76 a-d	19.31 a-f	5371 e-j	1037 d-h
N10080oIJCL	0.2	0.4	92 c-e	6.0	36 c-g	19 f-k	2.3	1.4	0.5	72 ab	76 a-c	19.36 a-f	4672 j-l	905 hi
N10082oIJC	0.2	0.9	95 a-c	6.0	35 e-g	23 c-i	2.5	1.2	0.4	71 a-d	75 c-f	19.22 a-g	5673 c-h	1089 a-g
N11020oIJ	0.3	0.5	100 a	5.8	36 d-g	25 c-g	1.6	1.1	0.1	72 ab	75 c-g	19.28 a-f	5451 d-i	1050 c-g
N11028oI	0.2	0.8	92 c-e	5.8	41 a-c	15 h-m	3.0	1.6	0.6	69 de	74 g	18.65 g	5955 a-f	1111 a-f
N11034oI	0.5	0.7	74 ij	6.0	42 ab	3 no	1.9	1.8	0.2	72 a-c	76 b-e	19.02 c-g	6473 a	1232 a
N11048oI	0.3	0.6	95 a-c	5.8	36 c-g	20 e-k	1.6	1.7	0.7	71 a-d	75 c-f	19.02 c-g	5564 c-h	1059 d-g
N11051oIJ	0.6	0.9	95 a-c	6.0	33 g	25 c-g	2.9	1.2	0.4	70 a-d	74 fg	18.91 d-g	6440 ab	1218 ab
N12006oI	0.3	0.5	88 d-f	5.9	40 a-e	13 k-m	3.1	1.3	0.3	71 a-d	76 a-e	19.25 a-g	5169 g-k	995 f-i
N12007oI	0.3	0.4	83 fg	6.0	43 ab	12 k-n	4.4	1.5	0.4	69 b-d	75 b-e	19.16 b-g	6071 a-e	1163 a-d
N12008oICLSmT	0.4	0.5	74 ij	5.9	42 ab	8 m-o	4.1	1.0	0.3	71 a-d	76 a-c	19.43 a-e	6258 a-c	1215 ab
N12009oICLT	0.2	0.3	87 ef	6.0	41 a-c	18 g-l	4.0	0.7	0.1	72 a-c	77 a-c	19.69 ab	5866 a-g	1154 a-e
N12010oI	0.5	0.5	83 fg	5.9	45 a	12 k-n	5.1	1.3	0.5	70 a-d	77 ab	19.58 a-c	5248 f-j	1026 d-g
N12014oI	0.4	1.1	81 gh	5.8	43 ab	12 k-n	3.5	2.0	0.9	69 cd	75 c-f	18.88 e-g	4741 i-l	894 hi
N12015oI	0.3	0.4	73 j	6.0	40 a-e	2 o	3.3	1.5	0.6	71 a-d	76 a-c	19.05 c-g	5398 e-i	1029 d-h
Mean	0.4	0.6	88	5.9	36	18	3.1	1.3	0.4	71	75	19.16	5542	1062
LSD_{0.05}³	0.4	0.4	6	0.3	5	9	2.1	0.6	1.0	3	2	0.01	713	144

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.

2014 Results by Location

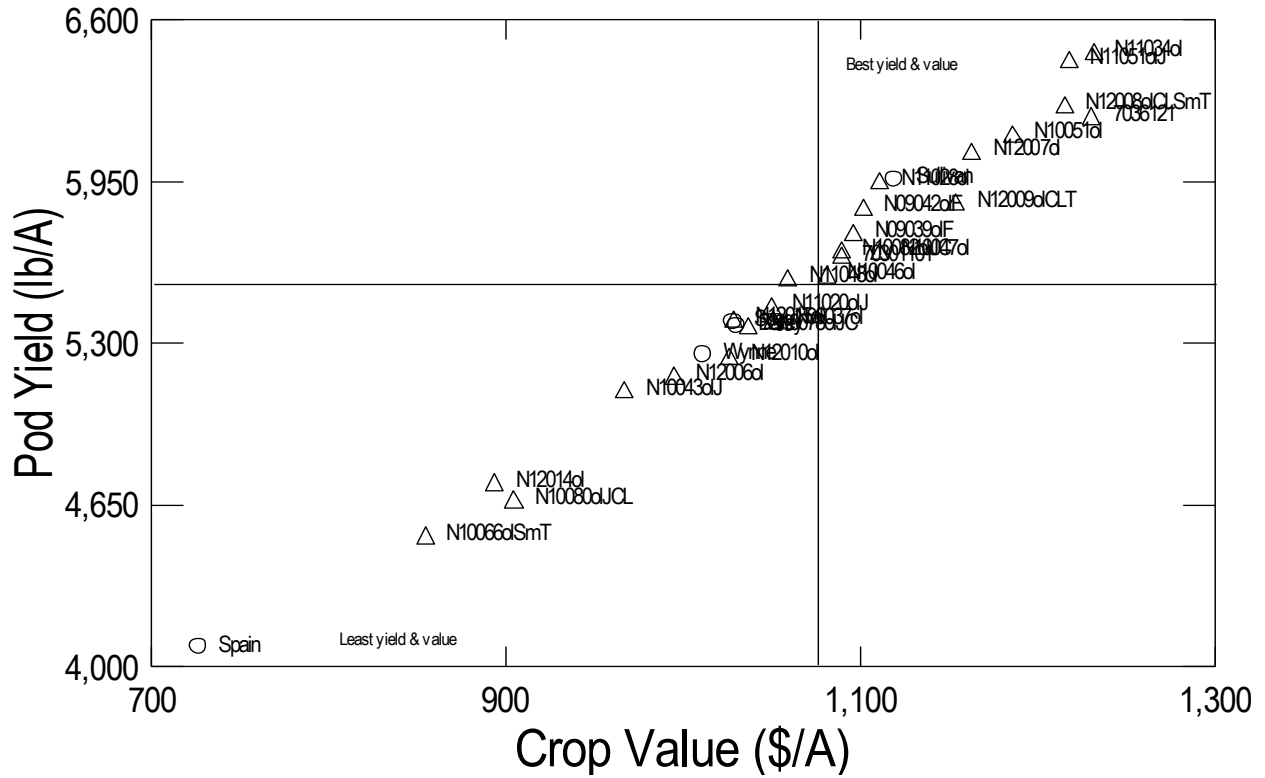


Figure 15. Summary of pod yield and crop value at Rocky Mount, NC, in 2014. Vertical bar represents mean crop value and horizontal bar mean pod yield of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location.

2014 Results by Location

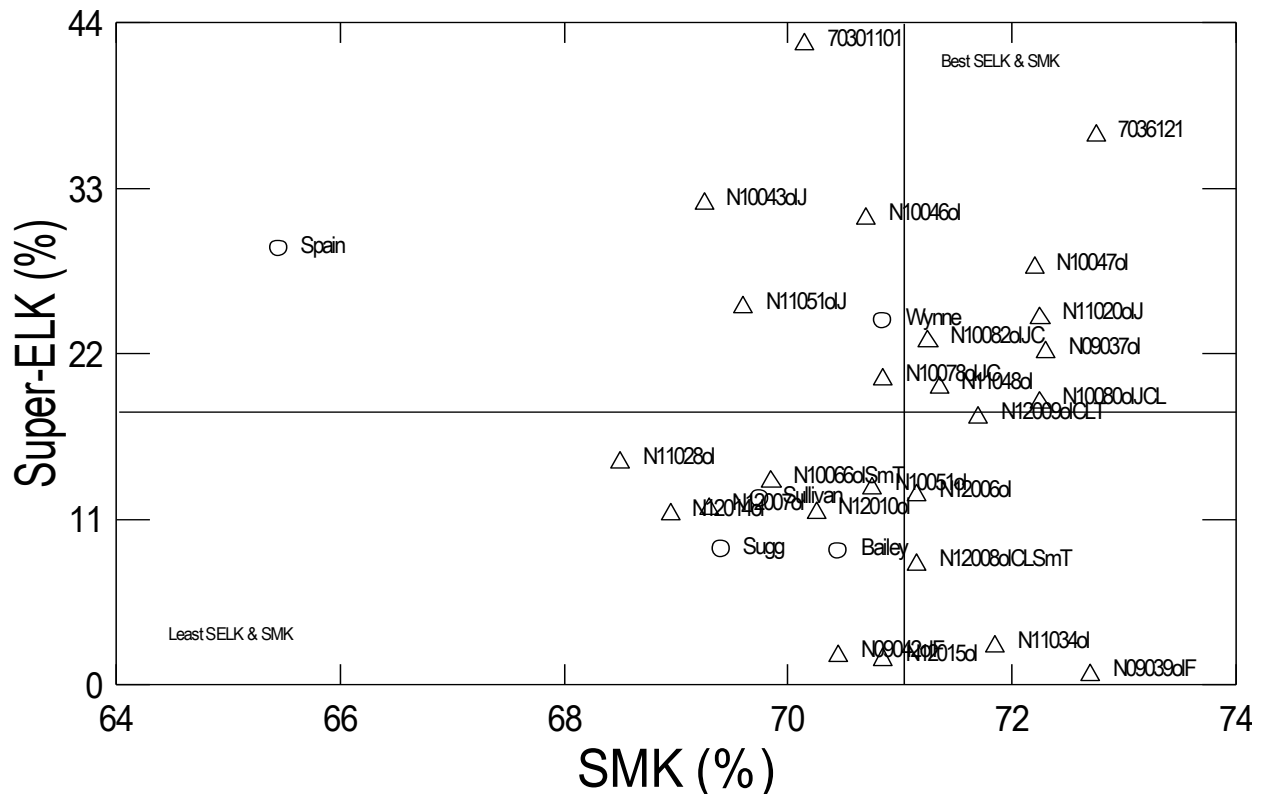


Figure 16. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Rocky Mount, NC in 2014. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location.

2014 Results by Location

Table 21. Performance of genotypes at Bladen County, NC, in 2014. Averages of three replicated plots planted on 14 May, dug on 9 October, and combined on 21 October.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% Super ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.5	0.8	84 e-g ²	5.7	35 b-g	9.4 f-h	6.6	2.5	0.5	65 c-e	74 b-i	18.46 e-g	4295 g-j	792 h-k
Sugg	0.4	1.3	88 b-f	5.7	39 ab	12.9 d-g	6.9	1.5	0.6	66 a-d	75 a-g	18.98 a-f	4853 d-i	919 d-j
Wynne	1.6	1.2	91 a-d	5.7	35 b-g	13.8 d-f	5.2	2.0	0.1	66 a-d	74 e-i	18.57 d-f	4310 g-j	800 h-k
Sullivan	0.3	1.0	90 b-f	5.8	36 a-f	11.7 d-g	7.0	1.4	0.4	67 a-d	75 a-g	18.97 a-f	5611 a-f	1063 a-f
Spain	0.3	0.9	91 a-d	5.8	26 i	27.1 ab	6.0	0.9	0.7	66 b-d	74 f-i	18.66 d-f	3685 j	689 k
07030-1-10-1	0.6	0.8	92 a-c	5.8	26 i	30.8 a	4.7	0.6	0.7	67 a-d	73 h-	18.71 b-f	4174 h-j	781 h-k
07036-1-2-1	0.7	0.9	94 ab	5.6	31 f-i	26.6 ab	4.4	0.6	0.4	70 a	76 a-d	19.37 ab	4661 e-j	903 e-i
N09037ol	0.3	1.0	94 ab	5.8	37 a-c	17.1 cd	6.2	1.3	0.3	66 b-e	74 e-i	18.74 b-f	4853 d-i	908 e-i
N09039olF	0.5	1.2	77 gh	5.9	28 hi	1.1 j	4.3	1.4	0.2	69 ab	75 a-h	18.62 d-f	4569 a-f	1013 a-g
N09042olF	0.2	0.7	70 i	5.7	30 g-i	2.0 ij	5.5	1.5	0.3	67 a-d	75 a-i	18.56 d-f	6098 ab	1131 a-d
N10043olJ	1.0	1.0	94 ab	5.7	30 g-i	24.5 ab	6.2	0.8	0.7	66 a-d	74 c-i	18.83 a-f	4634 e-j	870 f-k
N10046ol	0.5	0.7	88 b-f	5.8	39 ab	14.5 d-f	4.7	1.3	0.2	69 a-c	75 a-i	19.02 a-e	5478 a-f	1043 a-g
N10047ol	0.4	0.7	90 a-e	5.9	38 ab	16.0 de	6.3	1.0	0.2	69 a-c	76 a	19.45 a	4516 f-j	872 f-k
N10051ol	0.6	0.8	89 b-f	5.7	36 a-e	11.1 d-g	7.6	1.9	0.1	65 b-e	74 a-i	18.79 a-f	5062 b-h	945 c-i
N10066olSmT	0.4	1.4	89 b-f	5.8	36 a-f	13.9 d-f	5.3	1.7	0.5	66 a-d	74 d-i	18.58 d-f	4824 d-i	895 e-k
N10078olJC	0.3	1.0	90 a-e	5.8	39 ab	12.8 d-g	5.7	1.2	0.6	68 a-d	75 a-i	18.96 a-f	5062 b-h	958 b-h
N10080olJCL	0.4	0.9	84 d-g	5.7	32 c-h	9.7 e-h	6.9	1.6	1.0	64 de	74 d-i	18.31 fg	3992 h-j	728 jk
N10082olJC	0.4	1.9	88 b-f	5.8	32 d-h	14.4 d-f	8.0	1.6	0.9	64 de	75 a-i	18.65 d-f	4077 h-j	759 h-k
N11020olJ	0.4	1.3	97 a	5.9	31 e-h	25.6 ab	5.1	0.8	0.6	67 a-d	73 g-i	18.73 b-f	4960 c-i	928 d-j
N11028ol	0.3	0.7	88 b-f	5.8	40 a	6.9 g-j	5.5	2.0	0.2	67 a-d	74 a-i	18.68 c-f	6339 a	1182 a
N11034ol	0.5	1.0	76 hi	5.9	30 g-i	4.0 h-j	7.7	2.7	0.6	62 e	73 i	17.87 g	5774 a-d	1030 a-g
N11048ol	0.5	1.2	93 a-c	5.6	36 a-e	13.7 d-f	6.8	1.6	0.7	64 de	73 g-i	18.47 e-g	4521 f-j	837 g-k
N11051olJ	0.3	0.9	92 a-c	5.7	32 c-h	23.0 bc	5.9	1.4	0.4	68 a-d	76 a-d	19.19 a-d	4784 d-i	916 e-i
N12006ol	0.4	1.3	83 f-h	5.8	39 ab	8.2 f-i	7.7	1.9	0.2	66 b-d	76 a-c	19.07 a-e	3896 ij	744 i-k
N12007ol	0.3	0.6	88 b-f	5.8	39 ab	11.3 d-g	6.1	1.4	0.4	67 a-d	75 a-f	19.05 a-e	5641 a-e	1074 a-f
N12008olCLSmT	0.3	1.0	86 c-f	5.8	39 ab	14.5 d-f	6.3	1.5	0.2	68 a-d	76 a	19.36 a-c	6024 a-c	1164 ab
N12009olCLT	0.6	0.8	89 b-f	5.8	37 a-d	15.9 de	6.1	1.0	0.0	69 a-c	76 a-c	19.35 a-c	5635 a-e	1089 a-e
N12010ol	0.5	0.9	84 d-g	5.9	40 ab	11.0 d-g	7.3	1.1	0.3	67 a-d	75 a-e	19.17 a-d	5978 a-c	1143 a-c
N12014ol	0.4	0.8	84 e-g	5.8	39 ab	13.1 d-g	7.7	1.7	0.4	66 b-d	76 ab	19.16 a-d	4959 c-i	948 c-i
N12015ol	0.5	1.0	86 c-f	5.8	40 ab	4.1 h-j	7.1	1.5	0.6	67 a-d	76 ab	19.05 a-e	5378 a-g	1022 a-g
Mean	0.5	1.0	87	5.7	35	14.0	6.2	1.4	0.4	67	75	18.84	4983	938
LSD_{0.05}³	0.8	0.6	7	0.2	5	6.3	2.8	0.9	0.7	4	2	0.01	1096	212

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.

2014 Results by Location

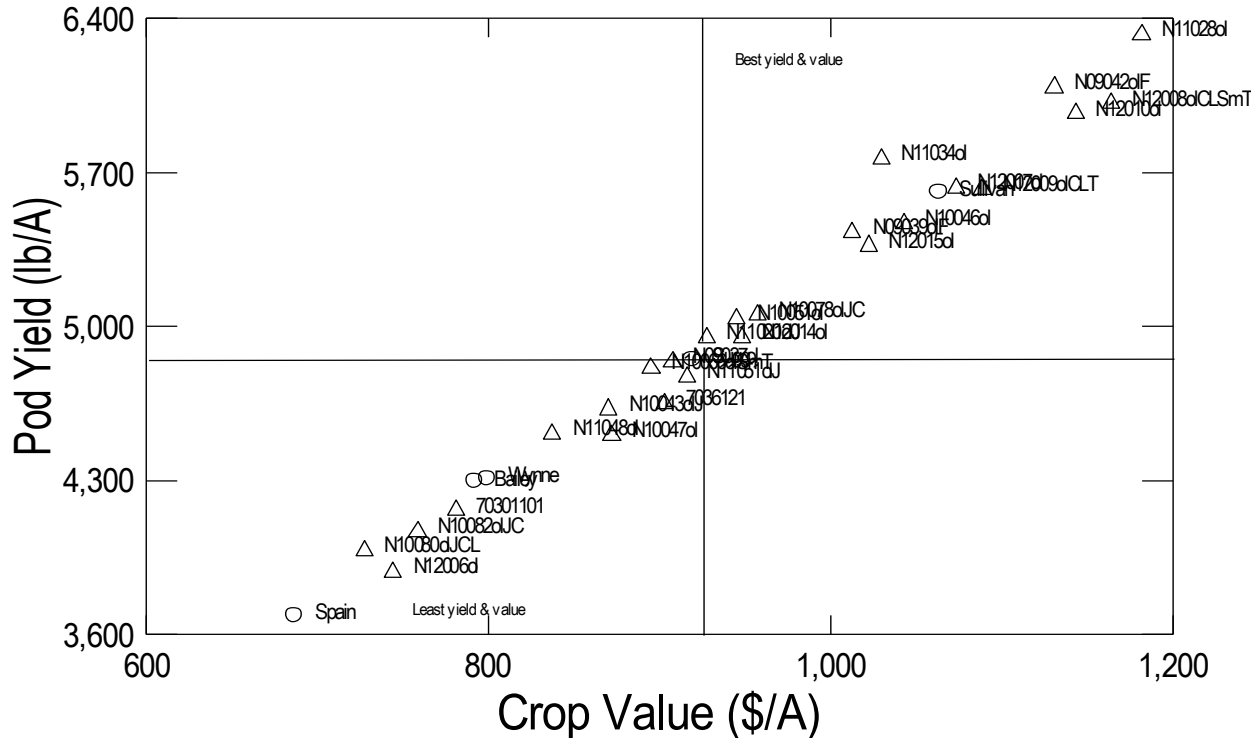


Figure 17. Summary of pod yield and crop value at Bladen Co., NC, in 2014. Vertical bar represents mean crop value and horizontal bar mean pod yield of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right upper rectangle shows the best genotypes for yield and value at this location.

2014 Results by Location

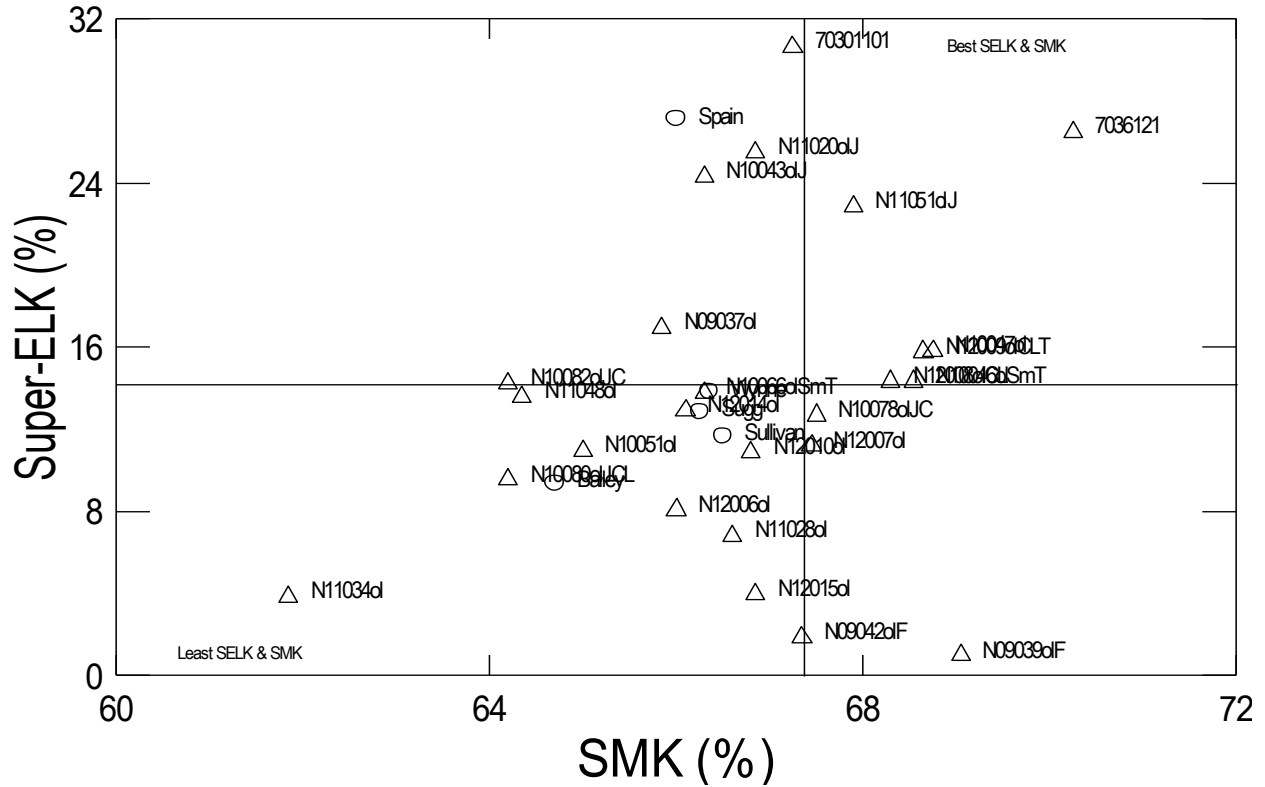


Figure 18. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content at Bladen, NC, in 2014. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content at this location.

2014 Results Across Locations

Table 22. Performance of genotypes averaged across test locations in 2014.

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% Super ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.6	1.0	79 m ²	7.2	35 a-g	9 j	2.7	2.2	0.2	69 a-c	74 d-h	18.51 a-c	4957 b-f	919 b-f
Sugg	0.5	1.0	81 lm	6.8	35 a-g	10 i	3.2	1.9	0.3	69 ab	75 a-d	18.73 a-c	4737 d-g	889 d-g
Wynne	0.8	1.1	94 a-d	6.9	34 e-i	17 e-h	2.1	2.0	0.1	69 a-c	73 e-i	18.48 a-d	4811 c-g	890 d-g
Sullivan	0.4	1.1	85 i-k	7.0	35 c-g	13 f-i	2.7	2.0	0.2	69 ab	74 c-g	18.64 a-c	5286 a-d	986 a-d
Spain	0.6	1.0	94 a-d	7.4	26 lm	23 cd	2.2	1.8	0.8	66 cd	71 j	17.68 de	4313 g	763 g
07030-1-10-1	0.6	0.9	93 c-f	7.1	22 m	34 a	2.3	1.1	0.5	69 a-c	73 i	18.53 a-c	4595 e-g	855 e-g
07036-1-2-1	1.0	0.7	95 a-d	7.1	27 k-l	30 ab	2.4	0.8	0.7	72 a	76 a	19.26 a	4787 c-g	923 a-f
N09037ol	0.5	1.1	95 a-c	7.1	35 d-h	19 d-f	2.1	1.7	0.1	69 ab	73 f-i	18.58 a-c	4835 c-g	901 c-f
N09039olF	0.5	1.2	75 n	7.1	34 e-i	2 k	1.7	2.1	0.0	70 ab	74 c-h	18.43 b-d	5318 a-d	983 a-e
N09042olF	0.5	1.2	64 o	7.3	34 e-i	3 k	2.2	2.1	0.1	69 ab	74 d-i	18.37 b-d	5315 a-d	978 a-e
N10043olJ	0.9	1.3	97 a	7.1	27 kl	30 ab	2.2	1.3	0.6	69 a-c	73 g-i	18.52 a-c	4448 fg	826 fg
N10046ol	0.6	0.9	93 c-e	6.9	36 a-e	23 c-e	2.3	1.3	0.2	71 a	75 a-d	19.19 ab	5348 a-c	1027 a-c
N10047ol	0.5	1.0	94 b-e	6.8	35 b-g	23 c-e	2.4	1.7	0.4	70 ab	75 a-d	18.99 a-c	5251 a-d	997 a-d
N10051ol	0.6	0.9	90 e-h	7.1	38 a-e	15 f-i	3.0	1.6	0.1	70 ab	74 a-d	18.90 a-c	5472 ab	1036 ab
N10066olSmT	0.4	1.2	90 e-h	7.0	35 c-g	12 hi	2.0	2.1	0.3	69 a-c	73 g-i	18.31 cd	4592 e-g	844 fg
N10078olJC	0.4	0.9	90 f-h	7.3	31 g-j	17 f-h	2.8	1.8	0.4	69 ab	74 d-i	18.60 a-c	5106 a-e	952 a-f
N10080olJCL	0.4	1.0	87 h-j	7.4	32 f-i	15 f-i	2.8	1.7	0.4	69 ab	74 b-e	18.68 a-c	4837 c-g	905 c-f
N10082olJC	0.3	1.2	91 d-g	7.0	31 h-k	17 e-h	2.5	1.7	0.4	64 d	74 b-f	17.37 e	5071 a-e	893 d-f
N11020olJ	1.0	1.2	97 ab	6.9	31 g-i	25 bc	1.8	1.4	0.2	70 ab	73 g-i	18.61 a-c	5048 a-e	941 a-f
N11028ol	0.6	1.2	88 g-i	6.6	38 a-e	10 i	2.7	2.2	0.2	68 bc	73 hi	18.28 cd	5546 ab	1016 a-d
N11034ol	0.8	1.3	72 n	6.8	36 a-f	4 jk	2.8	2.3	0.2	69 ab	74 b-e	18.51 a-c	5443 ab	1010 a-d
N11048ol	0.5	1.0	93 c-f	6.9	34 e-i	18 d-g	2.2	1.8	0.4	70 ab	74 c-g	18.52 a-c	5054 a-e	948 a-f
N11051olJ	0.6	1.1	92 c-f	6.7	30 i-k	25 bc	2.8	1.6	0.3	69 ab	74 d-i	18.77 a-c	5296 a-d	995 a-d
N12006ol	0.5	1.0	83 k-m	7.3	38 a-e	11 hi	2.6	1.7	0.3	70 ab	75 a-d	18.89 a-c	4845 c-g	917 b-f
N12007ol	0.6	0.8	83 k-m	7.1	39 a	11 hi	2.9	1.7	0.2	70 ab	75 a-d	18.87 a-c	5218 a-d	985 a-d
N12008olCLSmT	0.4	0.9	81 lm	7.1	37 a-e	13 g-i	2.8	1.9	0.1	70 ab	74 a-d	18.81 a-c	5578 a	1051 a
N12009olCLT	0.7	0.8	84 j-l	6.6	39 ab	14 f-i	3.1	1.5	0.1	71 ab	75 ab	19.17 ab	5485 ab	1052 a
N12010ol	0.5	0.9	82 lm	6.8	39 a-c	13 f-i	3.5	1.7	0.2	70 ab	75 a-d	19.02 a-c	5353 a-d	1013 a-d
N12014ol	0.5	1.1	80 m	6.6	39 a-d	12 hi	3.4	2.1	0.4	69 a-c	75 a-d	18.76 a-c	5087 a-e	954 a-f
N12015ol	0.6	0.9	73 n	6.9	36 a-f	3 k	2.9	2.1	0.3	70 ab	75 a-c	18.72 a-c	5311 a-d	995 a-d
Mean	0.6	1.0	86	7.0	34	16	2.6	1.8	2.9	69	74	18.63	5077	948
LSD_{0.05}³	0.4	0.3	4	1.0	4	6	1.7	0.5	0.3	3	1	0.01	596	129

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.

2014 Results Across Locations

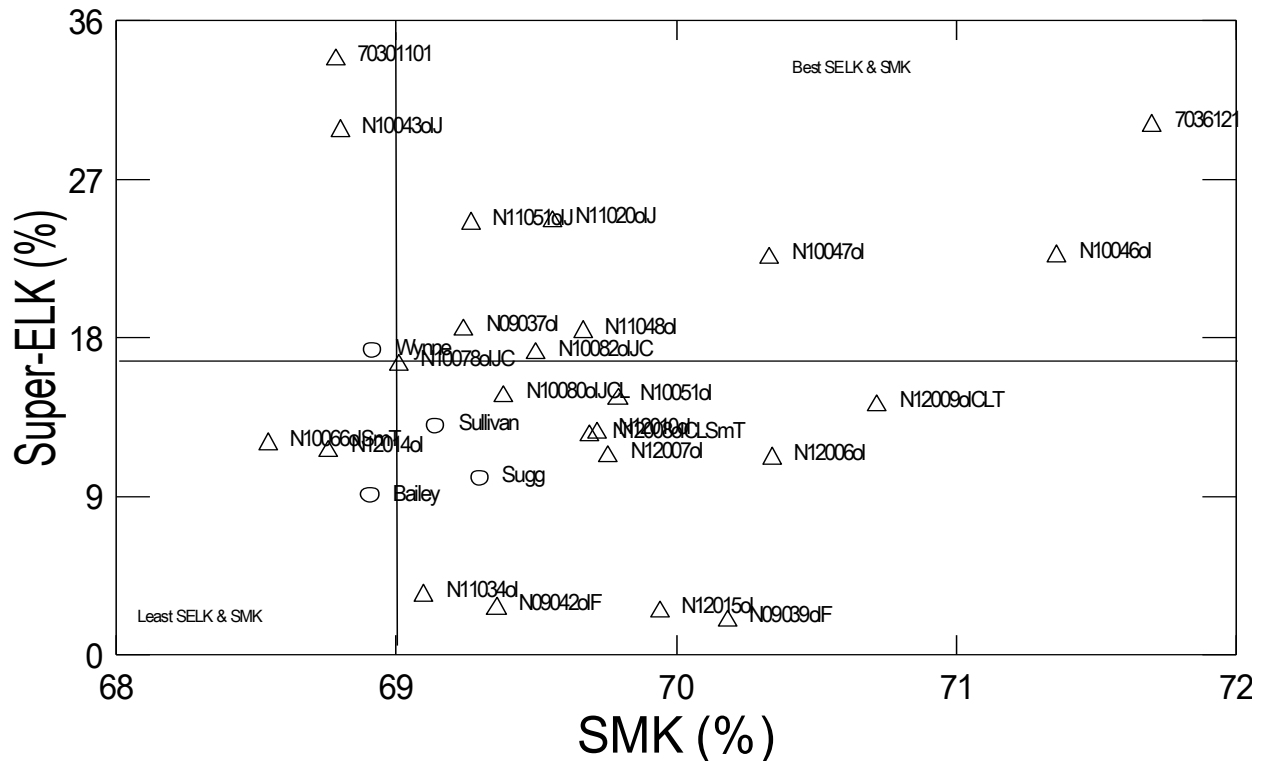


Figure 20. Summary of Extra Large Kernel (ELK) and Sound Mature Kernel (SMK) content across all locations and digging dates in 2014. Vertical bar represents mean of SMK content and horizontal bar mean of ELK content of 30 genotypes. Circles represent commercial cultivars and triangles advanced breeding lines. The right and upper rectangle shows the best genotypes for ELK and SMK content.

2014 Results Across Locations

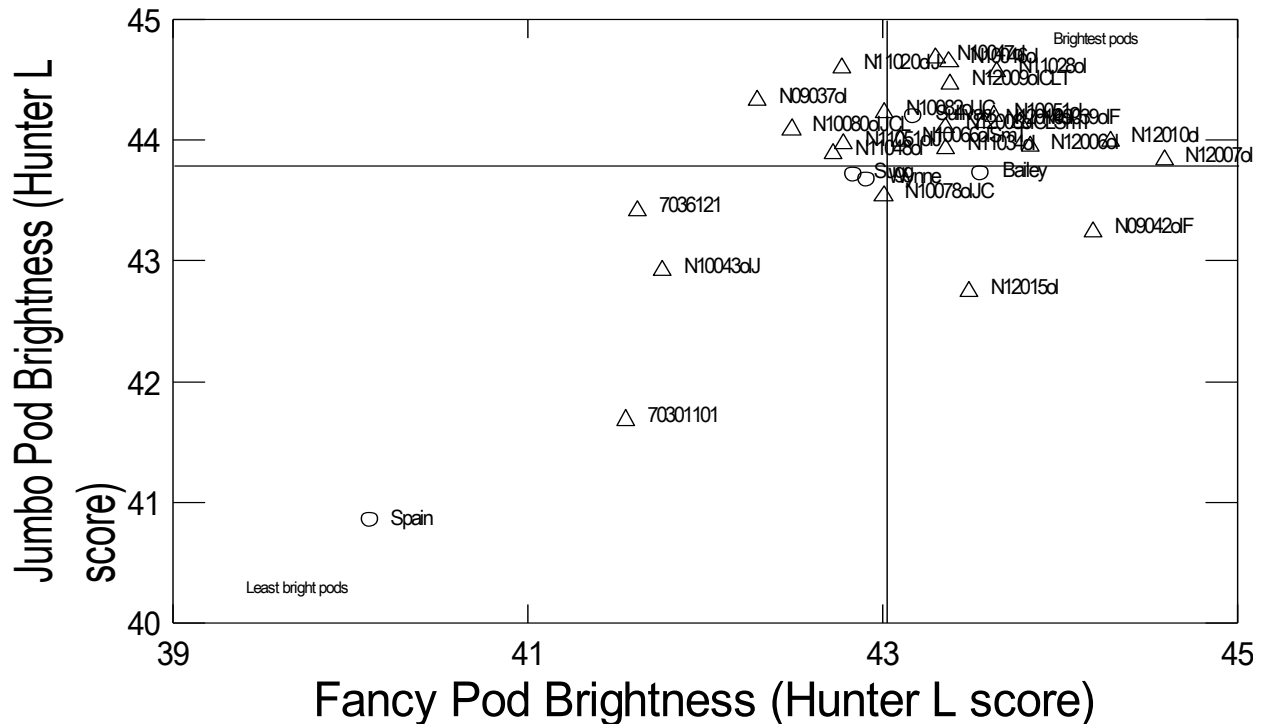


Figure 21. Brightness of jumbo and fancy pods across all test locations and digging dates in 2014. Circles represent commercial cultivars and triangles advanced breeding lines. Vertical bar represents mean fancy pod brightness and horizontal bar mean jumbo pod brightness of 30 genotypes. The right upper rectangle shows the best genotypes for jumbo and fancy pod brightness.

Two-year Averages by Location

RESULTS – TWO-YEAR AVERAGES

Table 23. Performance of genotypes at Tidewater AREC (Suffolk), VA. Two-year averages (2013-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.6	0.9	80 gh	7.6	43 e-h	1.7	2.9	1.1	67 ab	73 a-c	17.75 a	5491 ab	973 ab
Sugg	0.5	0.9	84 fg	7.4	43 d-h	1.8	2.8	1.5	67 ab	73 a	17.75 a	5003 a-c	883 a-c
Wynne	0.8	1.0	96 ab	7.4	38 h	1.3	2.5	1.9	65 ab	71 de	17.12 a	4998 a-c	848 bc
Sullivan	0.7	0.9	88 d-f	7.6	48 b-e	1.8	2.5	2.1	66 ab	72 a-d	17.19 a	5154 a-c	879 a-c
Spain	0.8	1.1	95 a-c	7.8	40 f-h	0.9	3.0	7.7	56 c	67 f	12.47 b	4636 cd	562 e
N09037oI	0.6	1.2	95 a-c	7.5	50 a-d	1.6	2.5	1.5	66 ab	71 b-e	17.34 a	5248 a-c	907 a-c
N09039oIF	0.5	1.2	79 h	7.6	38 h	0.8	3.7	1.1	65 ab	71 c-e	17.14 a	5382 ab	923 a-c
N09042oIF	1.0	1.1	70 i	8.0	40 gh	1.8	3.0	1.3	66 ab	72 a-d	17.53 a	5375 ab	939 a-c
N10043oIJ	0.7	1.5	98 a	7.4	52 a-c	1.0	2.0	2.4	64 ab	70 e	16.83 a	4201 d	702 d
N10046oI	0.7	1.0	93 a-d	7.5	54 a	1.6	2.0	1.6	68 a	73 a	17.87 a	5212 a-c	935 a-c
N10047oI	0.5	1.2	92 b-e	7.4	54 ab	1.4	2.6	2.4	66 ab	73 a-c	17.27 a	5074 a-c	878 a-c
N10051oI	0.5	0.9	92 b-e	8.1	52 a-c	1.2	2.2	1.7	67 ab	72 a-d	17.61 a	5622 a	988 a
N10066oISmT	0.3	1.0	89 d-f	7.4	47 c-f	1.0	2.4	1.1	67 ab	71 a-d	17.62 a	4885 b-d	861 a-c
N10078oIJC	0.4	1.0	90 c-e	7.8	45 d-g	1.7	2.9	2.0	65 ab	72 a-d	17.17 a	5293 a-c	908 a-c
N10080oIJCL	0.4	1.0	89 d-f	8.0	46 c-f	1.8	2.5	1.9	66 ab	72 a-d	17.50 a	5599 a	976 a
N10082oIJC	0.3	1.1	92 b-e	7.6	47 c-f	1.4	2.2	1.5	67 ab	72 a-d	17.76 a	5512 ab	978 a
N11020oIJ	1.4	1.0	96 ab	7.5	52 a-c	1.2	2.0	2.0	66 ab	71 de	17.18 a	5282 a-c	901 a-c
N11028oI	0.7	1.1	87 ef	6.9	44 d-h	2.5	2.8	2.6	63 b	71 b-e	16.41 a	5203 a-c	845 c
N11034oI	0.9	1.1	77 h	7.2	39 gh	2.0	3.2	0.8	67 ab	73 ab	17.78 a	5266 a-c	936 a-c
N11048oI	0.5	1.1	93 a-d	7.6	49 a-e	1.4	2.7	1.7	66 ab	72 a-d	17.50 a	5109 a-c	893 a-c
N11051oIJ	0.5	1.0	92 b-e	7.2	51 a-c	2.1	2.2	2.4	66 ab	72 a-d	17.14 a	5110 a-c	875 a-c
Mean	0.6	1.1	89	7.5	46	1.5	2.6	2.0	66	72	17.14	5174	885
LSD_{0.05}³	0.8	0.5	5	1.1	6	0.8	1.4	2.5	5	2	0.02	700	127

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 24. Performance of genotypes at Martin Co., NC. Two-year averages (2013-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.7	1.1	83 g ²	7.1	35 a-c	1.5	3.1	1.0	67 a	72 a	17.50 ab	4749 a-c	836 a
Sugg	0.7	1.1	81 g	7.0	35 a-c	1.9	3.4	1.4	66 a	72 a	17.36 ab	4479 a-c	785 a
Wynne	0.8	1.3	93 a-d	7.1	34 a-c	1.4	3.1	1.6	65 ab	71 ab	16.93 ab	4754 a-c	813 a
Sullivan	0.7	1.2	89 d-f	7.3	38 a-c	1.6	3.0	1.3	65 ab	71 ab	17.14 ab	4765 a-c	825 a
Spain	0.8	0.9	93 a-c	8.2	41 a-c	0.8	2.5	4.0	62 ab	69 b	14.89 c	4432 a-c	670 a
N09037oI	0.7	1.1	92 c-e	7.3	43 a-c	1.6	2.3	1.5	66 a	71 ab	17.36 ab	4557 a-c	793 a
N09039oIF	0.8	1.2	79 gh	7.3	31 c	1.0	3.0	0.7	68 a	72 a	17.57 ab	4546 a-c	809 a
N09042oIF	0.7	1.2	68 i	7.3	31 c	1.8	3.3	0.6	67 a	72 a	17.63 a	4591 a-c	814 a
N10043oIJ	1.1	1.3	96 ab	7.3	47 a	1.1	2.1	1.2	67 a	72 ab	17.68 a	4436 a-c	789 a
N10046oI	0.8	1.0	92 b-d	7.3	47 ab	1.4	2.2	0.7	68 a	73 a	18.01 a	4510 a-c	820 a
N10047oI	0.6	1.1	92 b-d	7.0	46 ab	1.4	2.5	1.1	68 a	73 a	17.91 a	4866 a-c	881 a
N10051oI	0.7	1.0	91 c-f	7.4	43 a-c	1.6	2.6	1.0	67 a	72 ab	17.68 a	4962 a-c	887 a
N10066oISmT	0.6	1.4	89 d-f	7.3	34 a-c	0.9	3.8	0.8	65 ab	70 ab	16.99 ab	4127 c	713 a
N10078oIJC	0.6	1.1	87 f	7.6	33 bc	1.8	4.0	1.7	64 ab	72 ab	16.93 ab	4304 bc	743 a
N10080oIJCL	0.8	1.3	88 f	7.3	34 a-c	2.0	3.7	1.3	65 ab	71 ab	17.03 ab	4328 bc	758 a
N10082oIJC	0.6	1.2	91 c-f	7.3	35 a-c	1.3	2.9	1.3	59 b	72 a	15.57 bc	4511 a-c	717 a
N11020oIJ	0.5	1.2	97 a	7.2	45 ab	1.0	2.3	0.8	67 a	71 ab	17.56 ab	5098 ab	900 a
N11028oI	0.7	1.3	88 ef	7.1	36 a-c	2.2	3.0	1.9	64 ab	71 ab	16.57 a-c	5374 a	899 a
N11034oI	0.9	1.6	76 h	7.2	30 c	1.7	2.8	0.9	67 a	73 a	17.64 a	4870 a-c	865 a
N11048oI	0.5	1.2	91 c-f	7.3	42 a-c	1.5	2.9	1.4	66 a	72 ab	17.31 ab	4587 a-c	810 a
N11051oIJ	0.7	1.2	91 c-f	7.1	43 a-c	1.7	2.6	1.7	66 a	72 ab	17.34 ab	4581 a-c	810 a
Mean	0.7	1.9	88	7.3	38	1.5	2.9	1.3	66	72	17.17	4639	806
LSD_{0.05}³	0.4	0.4	4	0.8	14	1.1	1.5	1.7	7	3	0.02	956	233

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 25. Performance of genotypes at Rocky Mount, NC. Two-year averages (2013-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.4	0.8	80 c ²	6.0	46 d-f	3.5	1.4	0.9	69 ab	74 a	18.65 a	5804 a-f	1080 a-d
Sugg	0.3	1.0	81 c	6.1	44 e-g	3.6	2.0	2.2	66 a-c	74 a	17.89 a	5658 a-f	1008 b-e
Wynne	0.5	0.9	94 ab	6.0	44 e-g	2.8	1.5	0.7	69 ab	74 a	18.77 a	5826 a-f	1090 a-d
Sullivan	0.2	0.9	91 b	6.0	49 c-e	3.5	1.6	2.1	66 a-c	73 a	17.94 a	6034 a-d	1082 a-d
Spain	0.4	1.1	93 ab	6.2	51 b-e	3.1	1.3	3.5	62 c	70 b	16.31 b	4705 g	755 f
N09037oI	0.3	0.8	95 ab	5.9	56 a-c	3.7	1.2	0.9	68 ab	74 a	18.76 a	5487 c-f	1029 b-e
N09039oIF	0.2	0.7	80 c	6.1	38 g	2.9	1.4	0.7	70 ab	75 a	18.61 a	5954 a-e	1107 ab
N09042oIF	0.3	0.8	69 d	6.1	39 fg	4.0	1.5	0.8	68 ab	74 a	18.43 a	5943 a-f	1095 a-c
N10043oIJ	0.5	1.2	97 a	6.0	58 ab	2.8	1.3	0.7	68 ab	73 a	18.66 a	5452 c-g	1016 b-e
N10046oI	0.3	0.9	94 ab	5.9	60 a	2.8	1.3	1.0	70 ab	75 a	18.86 a	5853 a-f	1103 ab
N10047oI	0.3	0.9	95 ab	6.0	58 ab	2.7	1.3	1.6	69 ab	75 a	18.69 a	5980 a-d	1115 ab
N10051oI	0.3	0.7	91 b	6.0	51 b-e	3.0	1.3	1.2	69 ab	74 a	18.59 a	5902 a-f	1099 ab
N10066oISmT	0.3	0.9	93 ab	6.0	52 a-e	2.7	1.6	1.0	69 ab	74 a	18.47 a	5188 e-g	956 de
N10078oIJC	0.3	0.9	90 b	6.0	51 b-e	3.5	1.4	2.2	68 ab	75 a	18.27 a	5658 a-f	1032 b-e
N10080oIJCL	0.2	0.7	90 b	6.0	54 a-d	2.6	1.2	2.6	69 ab	75 a	17.94 a	5391 d-g	960 c-e
N10082oIJC	0.2	1.2	93 ab	6.0	54 a-d	2.8	1.3	2.0	68 ab	74 a	18.30 a	5557 b-f	1018 b-e
N11020oIJ	0.2	0.9	98 a	5.9	60 a	2.0	1.0	1.3	70 a	74 a	18.80 a	5968 a-d	1119 ab
N11028oI	0.2	1.2	91 b	5.8	50 b-e	4.3	1.5	2.1	65 bc	73 a	17.81 ab	6284 ab	1117 ab
N11034oI	0.4	1.1	77 c	5.9	40 fg	2.7	1.8	1.1	69 ab	74 a	18.29 a	6420 a	1175 a
N11048oI	0.3	1.0	94 ab	6.0	53 a-d	2.0	1.7	2.0	68 ab	74 a	18.05 a	5175 fg	939 e
N11051oIJ	0.4	1.1	93 ab	6.0	55 a-d	3.8	1.4	2.6	66 a-c	73 a	17.91 a	6225 a-c	1116 ab
Mean	0.3	0.9	89	6.0	50	3.1	1.4	1.6	68	74	18.29	5736	1048
LSD_{0.05}³	0.2	0.7	6	0.2	9	1.6	0.5	2.2	5	2	0.02	776	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.

Two-year Averages by Location

Table 26. Performance of genotypes at Bladen, NC. Two-year averages (2013-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.4	1.1	84 ef ²	6.7	46 ef	4.1	1.8	1.0	67 a-c	74 a-c	18.36 a	4221 d-h	774 a-d
Sugg	0.3	1.3	89 cd	7.1	50 a-f	4.2	1.5	2.4	67 a-c	75 ab	18.17 a	4367 c-h	797 a-d
Wynne	0.8	1.2	91 b-d	6.9	45 f	3.9	1.4	1.0	68 a-c	74 a-c	18.54 a	4497 b-g	834 a-d
Sullivan	0.3	1.1	92 a-d	7.0	50 a-f	4.7	1.0	1.9	67 a-c	74 a-c	18.33 a	5170 a-c	950 a
Spain	0.2	1.0	94 a-c	8.8	49 b-f	3.2	0.8	7.2	60 d	71 d	13.98 b	3486 h	496 e
N09037oI	0.2	1.0	93 a-d	6.6	55a-c	4.5	1.0	0.8	68 a-c	74 a-c	18.77 a	4471 b-g	838 a-d
N09039oIF	0.5	1.0	83 f	7.2	33 g	2.8	1.1	0.5	70 a	74 ab	18.61 a	4925 a-e	917 ab
N09042oIF	0.3	1.2	73 g	7.2	35 g	4.1	1.4	1.4	67 a-c	74 a-c	18.20 a	5378 ab	981 a
N10043oIJ	0.6	0.9	94 ab	6.7	56 a	3.9	0.8	1.0	68 a-c	73 bc	18.66 a	4576 b-f	853 a-c
N10046oI	0.4	0.9	92 b-d	6.4	56 a	3.5	0.9	1.0	70 ab	75 ab	18.95 a	5126 a-d	972 a
N10047oI	0.9	1.0	91 b-d	7.0	56 ab	4.4	0.9	1.5	68 a-c	75 a	18.81 a	4425 c-g	831 a-d
N10051oI	0.4	0.8	89 b-d	6.7	48 c-f	4.6	1.4	1.3	67 a-c	74 a-c	18.45 a	4727 a-f	872 a-c
N10066oISmT	0.3	1.4	92 b-d	6.5	51 a-f	3.5	1.2	0.9	68 a-c	74 a-c	18.62 a	4632 a-f	862 a-c
N10078oIJC	0.2	1.0	89 cd	7.1	52 a-e	3.7	1.2	2.0	68 a-c	75 ab	18.35 a	4483 b-g	825 a-d
N10080oIJCL	0.3	1.2	88 de	6.8	47 d-f	4.3	1.3	2.4	66 bc	74 a-c	18.04 a	3833 f-h	690 c-e
N10082oIJC	0.3	2.0	91 b-d	6.8	48 c-f	4.9	1.2	2.8	65 c	74 a-c	17.51 a	3640 gh	642 de
N11020oIJ	0.2	1.1	97 a	6.9	57 a	3.2	0.8	1.1	68 a-c	73 c	18.44 a	4608 a-f	851 a-c
N11028oI	0.2	0.9	90 b-d	6.8	48 c-f	3.9	1.4	2.5	66 bc	74 a-c	17.53 a	5514 a	975 a
N11034oI	0.4	1.0	77 g	6.8	38 g	5.3	2.0	1.3	65 c	74 a-c	18.13 a	4925 a-e	890 a-c
N11048oI	0.4	1.2	94 a-c	6.8	53 a-d	4.4	1.4	2.2	66 c	74 bc	17.86 a	4109 e-h	739 b-d
N11051oIJ	0.4	1.1	91 b-d	6.8	54 a-c	5.0	1.1	2.1	67 a-c	75 ab	18.28 a	4689 a-f	858 a-c
Mean	0.4	1.1	89	6.9	49	4.1	1.2	1.8	67	74	18.12	4562	831
LSD_{0.05}³	0.6	0.6	5	2.2	7	3.8	0.8	3.2	4	2	0.02	922	208

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 27. Performance of genotypes at all locations. Two-year averages (2013-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.5	1.0	80 j ²	6.8	40 de	2.9	2.5	1.1	66 a-c	73 a-c	17.90 ab	4942 ab	885 ab
Sugg	0.5	1.1	84 i	7.0	42 cd	2.5	2.6	1.7	66 a-c	73 ab	17.71 ab	4832 a-d	857 a-c
Wynne	0.7	1.2	93 a-c	6.7	39 d-f	2.8	2.3	1.7	65 a-d	72 c-f	17.47 a-c	4728 a-d	829 a-c
Sullivan	0.6	1.2	89 e-h	6.9	44 b-d	3.0	2.3	2.0	65 a-d	72 a-f	17.40 a-c	5078 a	888 ab
Spain	0.6	1.0	94 ab	7.8	44 b-d	1.6	2.2	5.7	60 e	69 g	14.17 d	4388 cd	619 d
N09037oI	0.5	1.1	92 b-d	6.8	48 ab	3.1	2.0	1.4	66 a-c	72 a-f	17.81 ab	4772 a-d	850 a-c
N09039oIF	0.5	1.2	76 k	6.9	32 g	2.1	2.8	1.2	67 ab	73 a-f	17.53 a-c	4963 ab	877 a-c
N09042oIF	0.7	1.1	66 l	7.0	34 fg	3.1	2.6	1.2	66 a-c	73 a-c	17.73 ab	5021 a	893 ab
N10043oIJ	0.7	1.3	95 a	6.8	51 a	2.4	1.8	1.5	66 a-c	72 f	17.72 ab	4369 d	776 c
N10046oI	0.6	1.0	91 b-e	6.7	52 a	2.7	1.8	1.2	68 a	74 a	18.23 a	4899 ab	896 ab
N10047oI	0.5	1.1	91 b-f	6.7	51 a	2.8	2.1	1.8	67 ab	74 a	17.92 ab	4895 ab	885 ab
N10051oI	0.5	0.9	89 e-h	7.0	47 a-c	2.7	2.1	1.4	67 a-c	73 a-e	17.87 ab	5020 a	901 a
N10066oISmT	0.4	1.3	88 f-h	6.7	43 cd	2.2	2.6	1.2	66 a-c	72 d-f	17.60 ab	4398 cd	780 c
N10078oIJC	0.4	1.1	87 gh	7.0	42 cd	2.9	2.7	2.1	65 b-d	73 a-d	17.41 a-c	4660 a-d	817 a-c
N10080oIJCL	0.5	1.2	86 hi	6.9	42 cd	3.1	2.5	2.1	65 a-d	73 a-d	17.33 bc	4681 a-d	819 a-c
N10082oIJC	0.4	1.4	90 d-g	6.8	43 b-d	2.9	2.1	1.8	64 cd	73 a-c	17.09 bc	4692 a-d	810 a-c
N11020oIJ	0.7	1.2	96 a	6.8	50 a	2.4	1.7	1.5	66 a-c	72 ef	17.64 ab	4915 ab	870 a-c
N11028oI	0.6	1.2	86 hi	6.5	41 d	3.6	2.5	2.6	63 d	72 d-f	16.68 c	5154 a	867 a-c
N11034oI	0.7	1.3	73 k	6.7	35 e-g	3.1	2.6	1.1	66 a-c	73 a-c	17.80 ab	4953 ab	885 ab
N11048oI	0.5	1.3	92 b-e	6.8	47 a-c	2.6	2.4	2.0	65 a-d	72 b-f	17.41 a-c	4505 b-d	793 bc
N11051oIJ	0.5	1.1	90 c-g	6.7	48 ab	3.4	2.1	2.3	65 b-d	73 a-f	17.43 a-c	4870 a-c	855 a-c
Mean	0.6	1.2	87	6.9	43	2.8	2.3	1.8	66	72	17.44	4798	842
LSD_{0.05}³	0.3	0.3	3	0.6	5	1.1	0.7	1.0	3	1	0.01	495	104

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.

Three-year Averages at All Locations

Table 28. Performance of genotypes at Tidewater AREC (Suffolk), VA. Three-year averages (2012-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.7	0.8	83 e	7.7	44 cd	1.7	2.7	1.1	67 ab	73 a	17.87 a	5446 a-c	970 ab
Wynne	0.8	0.9	95 a	7.5	42 d	1.5	2.5	2.1	65 b	71 c	17.24 a	4952 cd	842 e
Sullivan	0.6	1.0	88 d	8.0	48 bc	1.6	2.6	2.0	66 ab	72 a-c	17.34 a	5027 b-d	865 de
N09037ol	0.6	1.1	95 a	7.8	51 ab	1.6	2.6	1.8	65 ab	71 bc	17.47 a	5014 cd	870 c-e
N10046ol	0.7	1.0	93 ab	7.8	55 a	1.4	2.0	1.5	68 a	73 a	18.04 a	5321 a-d	961 a-c
N10047ol	0.5	1.1	92 a-c	7.7	55 a	1.4	2.3	2.2	67 ab	73 a	17.71 a	5060 b-d	895 b-e
N10066olSmT	0.4	1.1	89 cd	7.7	46 cd	1.0	2.5	1.6	66 ab	71 bc	17.56 a	4800 d	840 e
N10078olJC	0.4	0.8	91 b-d	8.1	46 cd	1.7	2.5	2.5	66 ab	72 ab	17.43 a	5538 ab	952 a-d
N10080olJCL	0.4	0.9	89 cd	8.3	48 bc	1.7	2.2	2.0	67 ab	73 a	17.80 a	5683 a	1005 a
N10082olJC	0.3	1.0	92 a-c	7.7	47 bc	1.6	2.2	2.0	68 ab	72 ab	17.76 a	5453 a-c	960 a-c
Mean	0.5	1.0	91	7.8	48	1.5	2.4	1.9	66	72	17.62	5229	916
LSD_{0.05}³	0.3	0.3	4	1.0	5	0.8	0.9	1.3	3	1	0.01	522	94

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.

Three-year Averages at All Locations

Table 29. Performance of genotypes at Martin Co., NC. Three-year averages (2012-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.6	0.9	81 e ²	7.0	39 a-c	1.6	3.1	1.3	67 ab	73 a	17.71 ab	4827 a	857 a
Wynne	0.7	1.1	90 ab	7.0	34 c	1.5	3.5	1.9	64 ab	71 a	16.90 ab	4377 a	747 a
Sullivan	0.6	1.1	86 cd	7.4	40 a-c	1.7	3.3	1.8	65 ab	72 a	17.22 ab	4587 a	790 a
N09037ol	0.6	0.9	90 a	7.3	45 ab	1.6	2.4	1.6	66 ab	72 a	17.62 ab	4534 a	800 a
N10046ol	0.7	0.9	90 ab	7.2	48 a	1.5	2.4	0.7	68 a	73 a	18.20 a	4561 a	836 a
N10047ol	0.5	0.9	90 ab	6.9	47 a	1.6	2.6	1.1	68 a	73 a	18.11 a	4822 a	879 a
N10066olSmT	0.6	1.1	88 a-d	7.2	39 a-c	1.0	3.3	0.9	66 ab	71 a	17.44 ab	4369 a	771 a
N10078olJC	0.5	0.9	85 d	7.5	37 bc	1.8	3.8	2.0	64 ab	72 a	17.15 ab	4434 a	768 a
N10080olJCL	0.6	1.1	87 b-d	7.2	37 bc	2.0	3.5	1.7	65 ab	72 a	17.29 ab	4395 a	771 a
N10082olJC	0.6	1.0	89 a-c	7.2	39 a-c	1.6	2.7	1.4	62 b	73 a	16.42 b	4668 a	779 a
Mean	0.6	1.0	88	7.2	40	1.6	3.1	1.4	66	72	17.41	4556	800
LSD_{0.05}³	0.3	0.4	4	0.6	10	0.9	1.3	1.1	6	2	0.02	765	181

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.

Three-year Averages at All Locations

Table 30. Performance of genotypes at Rocky Mount, NC. Three-year averages (2012-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.5	0.7	82 c	6.3	45 b	2.5	2.6	1.5	66 ab	73 a-c	18.01 a	5794 a	1035 a
Wynne	0.7	0.8	95 a	6.3	45 b	2.1	2.1	2.4	66 ab	73 a-c	17.93 a	5296 ab	927 ab
Sullivan	0.3	1.0	90 b	6.3	46 b	2.5	2.9	2.9	63 b	71 c	17.11 a	5586 ab	942 ab
N09037ol	0.4	0.8	94 a	6.2	51 ab	2.7	2.2	2.9	65 ab	72 bc	17.66 a	4924 b	835 b
N10046ol	0.4	0.9	94 a	6.2	57 a	1.9	2.3	2.6	67 ab	73 a-c	18.06 a	5530 ab	978 ab
N10047ol	0.4	0.8	94 a	6.3	56 a	2.0	1.9	2.5	67 ab	74 ab	18.17 a	5500 ab	979 ab
N10066olSmT	0.5	1.0	92 ab	6.3	51 ab	2.0	2.5	1.2	67 ab	73 a-c	18.09 a	5032 b	908 ab
N10078olJC	0.4	0.9	92 ab	6.3	51 ab	2.4	2.1	3.5	66 ab	74 ab	17.82 a	5392 ab	929 ab
N10080olJCL	0.5	0.7	93 ab	6.3	54 a	2.3	1.7	2.8	68 a	75 a	18.04 a	5319 ab	947 ab
N10082olJC	0.4	1.2	93 ab	6.2	51 ab	1.9	2.2	3.2	66 ab	73 a-c	17.66 a	4952 b	862 ab
Mean	0.4	0.9	92	6.3	51	2.2	2.2	2.5	66	73	17.86	5333	934
LSD_{0.05}³	0.3	0.4	3	0.4	7	1.3	1.2	2.3	4	2	0.01	734	190

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.

Three-year Averages at All Locations

Table 31. Performance of genotypes at Bladen, NC. Three-year averages (2012-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.6	0.9	87 b	6.9	44 cd	3.4	1.3	1.2	67 ab	73 ab	18.30 a-d	5074 ab	926 ab
Wynne	1.1	1.0	94 a	7.4	42 d	4.2	1.4	2.6	64 c	72 b	17.69 cd	4670 ab	792 b
Sullivan	0.5	1.0	93 a	7.2	48 a-d	3.7	1.0	2.0	67 a-c	73 ab	18.18 a-d	5301 ab	961 ab
N09037ol	0.6	0.9	94 a	6.9	50 a-c	4.3	1.0	1.0	67 ab	73 ab	18.51 ab	4981 ab	920 ab
N10046ol	0.9	0.8	93 a	7.0	54 a	3.4	0.8	1.1	69 a	74 a	18.76 a	5507 a	1030 a
N10047ol	1.0	0.8	93 a	7.2	51 ab	3.7	0.8	1.8	67 ab	73 ab	18.36 a-c	4929 ab	893 ab
N10066olSmT	0.9	1.2	93 a	7.3	48 a-d	2.9	1.1	1.1	68 ab	73 ab	18.36 a-c	5083 ab	930 ab
N10078olJC	0.5	0.7	91 ab	7.6	45 b-d	2.8	1.1	2.0	68 ab	73 ab	18.14 a-d	5143 ab	929 ab
N10080olJCL	0.8	1.0	91 ab	7.0	42 d	3.5	1.2	2.2	66 a-c	73 ab	17.81 b-d	4934 ab	870 ab
N10082olJC	0.7	1.4	94 a	7.5	46 b-d	3.6	1.1	2.6	65 bc	73 ab	17.58 d	4504 b	790 b
Mean	0.8	1.0	92	7.2	47	3.6	1.1	1.8	67	73	18.17	5013	904
LSD_{0.05}³	0.7	0.5	4	1.3	7	2.3	0.5	1.5	3	2	0.01	949	176

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.

Three-year Averages at All Locations

Table 32. Performance of genotypes at all locations. Three-year averages (2012-2014).

Variety or Line	% LSK	% FM	% Fancy	% Water	% ELK	% SS	% OK	% DK	% SMK	% Total Kernels	Support Price \$/cwt	Yield ¹ lb/A	Value \$/A
Bailey	0.5	0.9	82 d	6.8	42 d	2.6	2.5	1.3	67 ab	73 ab	17.94 a-c	5093 a	912 a
Wynne	0.8	1.0	93 a	6.9	41 d	2.7	2.4	2.4	64 c	72 d	17.34 d	4615 bc	789 d
Sullivan	0.5	1.1	88 c	7.0	45 cd	2.6	2.5	2.2	65 bc	72 cd	17.42 cd	4928 ab	855 a-d
N09037ol	0.5	1.0	92 a	6.9	48 bc	2.8	2.1	1.9	65 bc	72 b-d	17.75 a-d	4713 a-c	828 b-d
N10046ol	0.6	0.9	91 a	6.9	52 a	2.5	1.9	1.5	67 a	73 a	18.24 a	4991 ab	907 ab
N10047ol	0.6	1.0	91 a	6.8	51 ab	2.7	2.0	2.0	67 ab	73 a	18.01 ab	4892 a-c	878 a-c
N10066olSmT	0.5	1.2	89 bc	7.0	44 d	1.9	2.5	1.5	66 a-c	72 d	17.67 b-d	4514 c	799 cd
N10078olJC	0.4	1.0	88 bc	7.2	44 d	2.5	2.5	2.7	65 bc	73 a-c	17.49 b-d	4852 a-c	839 a-d
N10080olJCL	0.6	1.0	88 c	7.1	43 d	2.8	2.3	2.4	65 bc	73 ab	17.52 b-d	4870 a-c	851 a-d
N10082olJC	0.5	1.2	91 ab	7.1	45 cd	2.6	2.1	2.2	65 c	73 ab	17.30 d	4817 a-c	833 a-d
Mean	0.6	1.0	89	7.0	46	2.6	2.3	2.0	66	73	17.67	4828	849
LSD_{0.05}³	0.2	0.2	2	0.5	4	0.8	0.5	0.7	2	1	0.01	382	79

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.

Multi-Year Averages Across Locations

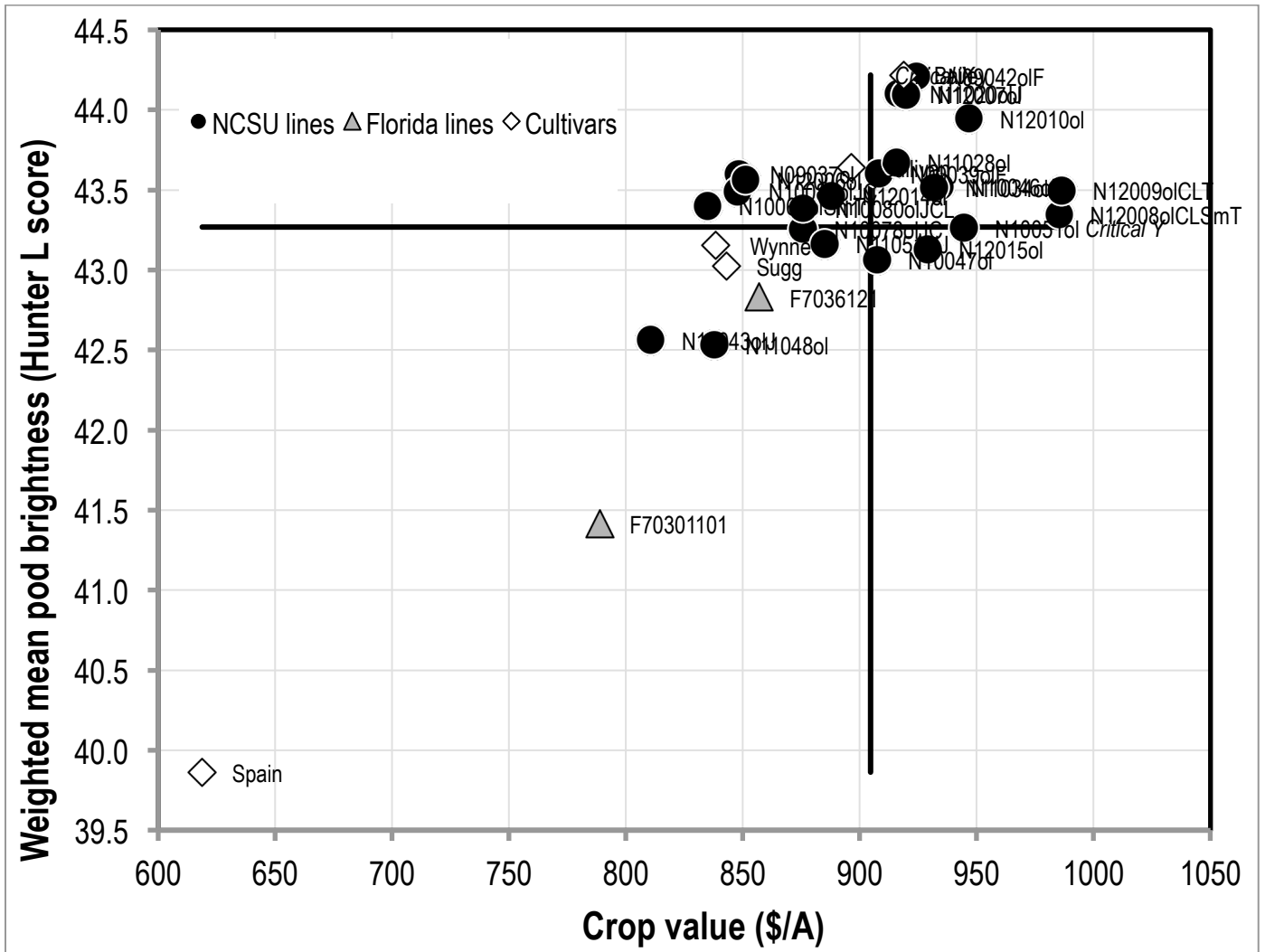


Figure 22. Mean pod brightness and crop value for lines and cultivars including multi-year PVQE tests. Breeding lines developed by Isleib (TGI) and Tallury (SPT) are marked by circles and cultivars are marked by diamonds. Dotted lines represent critical values for crop value (*Critical X*) and pod brightness (*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

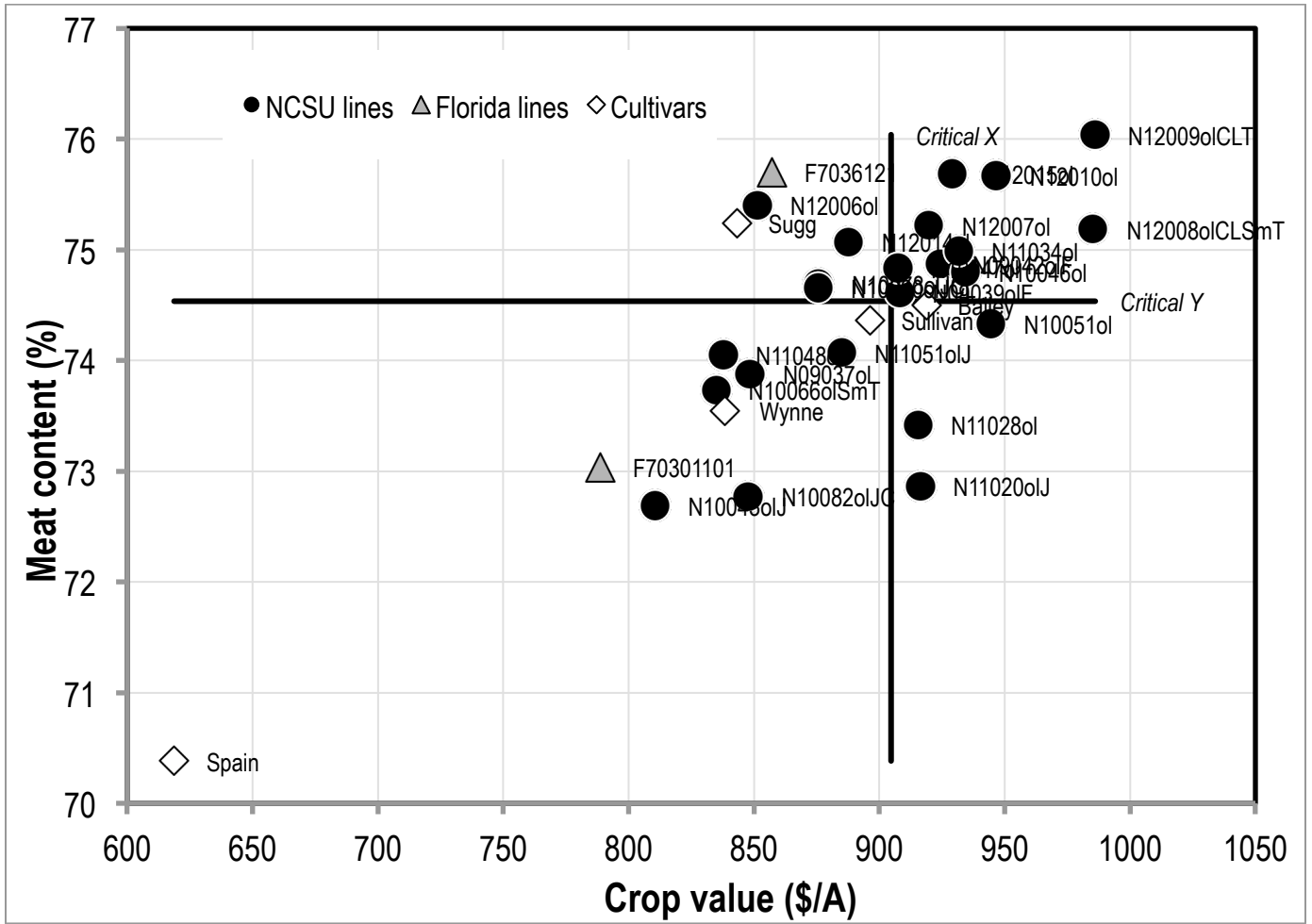


Figure 23. Meat content and crop value for lines and cultivars, virginia-type and runners, including multi-year PVQE tests. Breeding lines developed by Isleib (TGI) and Tallury (SPT) are marked by circles and cultivars are marked by diamonds. Dotted lines represent critical values for crop value (*Critical 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 meat content.