

2013

Peanut Variety and Quality Evaluation Results

II. Quality 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 2013

II. Quality Data

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Pam Copeland, below



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INTRODUCTION

Along with agronomic and grade information, data on kernel and pod quality are essential for release of new peanut cultivars to ensure acceptability by the entire peanut trade. The present report contains the quality data collected on 10 Virginia-type commercially available cultivars and 26 advanced breeding lines tested in the Peanut Variety and Quality Evaluation (PVQE) small plots in 2013. The small PVQE plots with 36 varieties were tested at five locations in Virginia, North Carolina, and South Carolina: Suffolk, VA, Martin Co., NC, Rocky Mount, NC, Bladen, NC, and Blackville, SC. At Suffolk, VA, and Martin Co., NC, two Digs were achieved. For the other locations, only one Dig was tested. Each genotype was replicated 2 times at each location and Digging date. Varieties' names and pedigree are presented in Table 1. A detailed description of the plant material, test locations, weather conditions, and cultural practices is included in the PVQE 2013 Results. I. Agronomic and Grade Data, at <http://pubs.ext.vt.edu/AREC/AREC-64/AREC-64-PDF.pdf>.

2013 SMALL PLOT TESTS

Blanching evaluations were determined by a laboratory sample blancher of two 250 g peanut samples from the early-dig at Martin Co., NC, and the Tidewater AREC. Tables 2 through 19 contain blanching data for the extra large kernels (ELK) and medium size kernels. Statistical analysis were determined for percentage of splits, whole blanched, not blanched, and partially blanched.

Small Plot Tests

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)
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

Small Plot Tests

Fatty acid content and composition of the sound mature kernels (SMK) was determined by gas chromatography and expressed as % from total seed oil content. Iodine value, oleic/linoleic (O/L) ratio, % total saturated, polyunsaturated/saturated (P/S) ratio, and % total long chain-saturated acids were also calculated using the following formulas:

$$\text{Iodine Value} = (\% \text{ oleic}) (0.8601) + (\% \text{ linoleic}) (1.7321) + (\% \text{ eicosenoic}) (0.7854)$$

$$\text{Oleic/Linoleic (O/L) ratio} = \% \text{ oleic} / \% \text{ linoleic}$$

$$\% \text{ Total Saturated} = \% \text{ palmitic} + \% \text{ stearic} + \% \text{ arachidic} + \% \text{ behenic} + \% \text{ lignoceric}$$

$$\text{Polyunsaturated/Saturated (P/S) ratio} = \% \text{ polyunsaturated (linoleic)} / \% \text{ total saturated}$$

$$\% \text{ Total Long Chain Saturated} = \% \text{ arachidic} + \% \text{ behenic} + \% \text{ lignoceric}$$

The definition of a high oleic peanut is a peanut line and seed that has an oleic acid content of from about 74% to about 84% and a linoleic acid content of from about 2% to about 8%, each based upon the total fatty acid content of the seed, and a ratio of the amount of oleic acid to linoleic acid in the seed of from about 9:1 to about 42:1.

Fatty acid composition is reported from all 2013 PVQE locations and digging dates in Tables 20 through 28. Table 29 shows the content of the fatty acids averaged across all locations in 2013. Two- and three-year averages are included in Tables 30 and 31.

Blanching Results

Table 2. Laboratory sample blanching of Extra Large Kernels (ELK) from Tidewater AREC (Suffolk) VA, Dig 1, 2013 (18 September).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.90	5.05	1.65	1.45 e-j	95.85 a-c	0.00 a	1.05 f
CHAMPS	5.90	5.10	1.70	1.40 e-j	95.10 a-e	0.00 a	1.80 d-f
Phillips	5.90	5.05	1.70	1.00 g-j	95.45 a-e	0.00 a	1.85 d-f
Bailey	5.90	5.10	1.60	1.25 e-j	95.30 a-e	0.00 a	1.85 d-f
Sugg	5.90	5.10	1.65	1.45 e-j	94.35 a-f	0.00 a	2.55 c-f
Florida 07	5.90	5.10	1.65	3.00 ab	92.40 e-g	0.00 a	2.95 c-f
Sullivan	5.90	5.05	1.75	1.55 e-i	95.20 a-e	0.00 a	1.50 ef
Wynne	5.90	5.10	1.65	0.90 g-j	96.90 a	0.00 a	0.55 f
N08082oIJCT	5.90	5.05	1.55	0.70 g-j	96.35 ab	0.00 a	1.40 ef
Spain	5.85	5.05	1.65	2.15 b-e	85.90 i	0.00 a	10.30 b
N09037oI	5.90	5.10	1.50	0.90 g-j	96.70 ab	0.00 a	0.90 f
N09039oIF	5.90	5.05	1.70	1.70 c-g	93.50 b-f	0.00 a	3.10 c-f
N09042oIF	5.85	5.05	1.70	1.30 e-j	94.30 a-f	0.00 a	2.70 c-f
N10043oIJ	5.85	5.10	1.70	0.90 g-j	92.20 e-g	0.00 a	5.20 c
N10046oI	5.90	5.10	1.70	0.60 h-j	96.65 ab	0.00 a	1.05 f
N10047oI	5.85	5.10	1.65	1.40 e-j	94.40 a-f	0.00 a	2.55 c-f
N10051oI	5.85	4.95	1.60	1.05 f-j	96.05 ab	0.00 a	1.30 ef
N10053oI	5.90	5.15	1.70	2.15 b-e	93.75 a-f	0.00 a	2.40 c-f
N10061oIFCLSm	5.90	5.05	1.60	1.55 e-i	94.30 a-f	0.00 a	2.55 c-f
N10066oISmT	5.90	5.10	1.70	1.25 e-j	95.35 a-e	0.00 a	1.70 d-f
N10070oICLSmT	5.90	5.05	1.55	1.70 c-g	94.90 a-e	0.00 a	1.85 d-f
N10078oIJC	5.90	5.00	1.65	2.10 b-f	93.65 a-f	0.00 a	2.60 c-f
N10080oIJCL	5.90	5.05	1.55	1.15 e-j	95.75 a-d	0.00 a	1.55 ef
N10082oIJC	5.90	5.05	1.70	2.20 b-e	94.85 a-e	0.00 a	1.25 ef
N11019oIJ	5.90	5.10	1.65	0.50 ij	95.35 a-e	0.00 a	2.50 c-f
N11020oIJ	5.85	5.10	1.65	1.60 d-h	93.85 a-f	0.00 a	2.90 c-f
N11024oI	5.95	5.00	1.70	1.55 e-i	94.70 a-e	0.00 a	2.05 d-f
N11028oI	5.85	5.10	1.75	2.70 a-c	92.70 c-g	0.00 a	2.85 c-f
N11034oI	5.85	5.05	1.60	0.40 j	93.65 a-f	0.00 a	4.35 c-e
N11039oIFSr	5.85	4.95	1.60	0.75 g-j	96.00 ab	0.00 a	1.65 d-f
N11048oI	5.95	5.05	1.55	3.10 ab	92.55 d-g	0.00 a	2.80 c-f
N11051oIJ	5.90	5.10	1.60	2.75 a-c	91.40 f-h	0.00 a	4.25 c-e
SPT 10-05	5.90	5.10	1.65	1.05 f-j	88.55 hi	0.00 a	8.75 b
SPT 10-12oI	5.90	5.00	1.50	2.65 a-d	70.75 j	0.00 a	25.10 a
SPT 10-14oI	5.90	5.10	1.55	1.25 e-j	70.00 j	0.00 a	27.20 a
Mean	5.89	5.07	1.64	1.58	92.73	0.00	4.05

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 3. Laboratory sample blanching of Extra Large Kernels (ELK) from Tidewater AREC (Suffolk) VA, Dig 2, 2013 (30 September)

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.90	4.95	1.60	1.20 c-k	94.05 ab	0.00 a	3.15 cd
CHAMPS	5.80	4.85	1.70	1.00 f-k	95.10 a	0.00 a	2.20 cd
Phillips	5.90	4.85	1.35	1.60 b-i	94.55 ab	0.00 a	2.50 cd
Bailey	5.90	4.90	1.65	2.10 b-e	95.00 a	0.00 a	1.25 d
Sugg	5.90	4.90	1.65	0.75 h-k	95.80 a	0.00 a	1.80 d
Florida 07	5.95	4.90	1.65	2.20 a-c	92.25 ab	0.00 a	3.90 cd
Sullivan	5.90	4.80	1.60	1.50 b-j	94.75 ab	0.00 a	2.15 cd
Wynne	5.95	4.90	1.55	0.55 jk	94.85 ab	0.00 a	3.05 cd
N08082oIJCT	5.90	4.85	1.60	0.90 g-k	94.25 ab	0.00 a	3.25 cd
Spain	5.95	4.90	1.70	1.75 b-h	78.85 c	0.00 a	17.70 b
N09037oI	5.85	4.90	1.65	0.85 g-k	95.15 a	0.00 a	2.35 cd
N09039oIF	5.85	4.85	1.70	0.70 i-k	94.10 ab	0.00 a	3.50 cd
N09042oIF	5.95	4.95	1.60	0.60 i-k	94.20 ab	0.00 a	3.60 cd
N10043oIJ	5.80	4.80	1.70	1.15 d-k	94.30 ab	0.00 a	2.85 cd
N10046oI	5.85	4.90	1.65	0.35 k	96.00 a	0.00 a	2.00 cd
N10047oI	5.90	4.90	1.60	1.00 f-k	95.30 a	0.00 a	2.10 cd
N10051oI	5.90	4.95	1.70	1.20 c-k	94.70 ab	0.00 a	2.40 cd
N10053oI	5.85	4.80	1.60	1.85 b-g	93.35 ab	0.00 a	3.20 cd
N10061oIFCLSm	5.95	4.85	1.65	2.00 b-f	95.30 a	0.00 a	1.05 d
N10066oISmT	5.90	4.85	1.90	0.75 h-k	95.15 a	0.00 a	2.20 cd
N10070oICLSmT	5.90	4.90	1.60	1.75 b-h	94.55 ab	0.00 a	2.10 cd
N10078oIJC	5.90	4.90	1.65	1.10 e-k	94.20 ab	0.00 a	3.05 cd
N10080oIJCL	5.85	4.85	1.65	1.75 b-h	92.95 ab	0.00 a	3.65 cd
N10082oIJC	5.90	4.85	1.65	1.80 b-g	94.65 ab	0.00 a	1.90 cd
N11019oIJ	5.80	4.80	1.70	0.60 i-k	95.50 a	0.00 a	2.20 cd
N11020oIJ	5.90	4.85	1.70	1.10 e-k	95.05 a	0.00 a	2.15 cd
N11024oI	5.85	4.85	1.60	2.00 b-f	92.30 ab	0.00 a	4.10 cd
N11028oI	5.90	4.95	1.65	2.35 ab	91.65 ab	0.00 a	4.35 cd
N11034oI	5.90	4.85	1.65	0.85 g-k	95.25 a	0.00 a	2.25 cd
N11039oIFSr	5.85	4.80	1.70	2.15 b-d	94.55 ab	0.00 a	1.60 d
N11048oI	5.90	4.85	1.75	0.70 i-k	90.70 ab	0.00 a	6.85 cd
N11051oIJ	5.90	4.95	1.65	1.75 b-h	88.15 b	0.00 a	8.45 c
SPT 10-05	5.85	4.90	1.50	3.20 a	74.40 cd	0.00 a	20.90 b
SPT 10-12oI	5.85	4.85	1.65	2.15 b-d	64.05 e	0.00 a	32.15 a
SPT 10-14oI	5.80	4.85	1.55	1.75 b-h	68.45 de	0.00 a	28.25 a
Mean	5.88	4.87	1.64	1.40	91.53	0.00	5.43

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 4. Laboratory sample blanching of Extra Large Kernels (ELK). Averages of both digging dates from Tidewater AREC (Suffolk), VA, 2013.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.90	5.00	1.63	1.33 e-m	94.95 a-c	0.00 a	2.10 d
CHAMPS	5.85	4.98	1.70	1.20 f-m	95.10 a-c	0.00 a	2.00 d
Phillips	5.90	4.95	1.53	1.30 e-m	95.00 a-c	0.00 a	2.18 d
Bailey	5.90	5.00	1.63	1.68 b-i	95.15 a-c	0.00 a	1.55 d
Sugg	5.90	5.00	1.65	1.10 f-m	95.08 a-c	0.00 a	2.18 d
Florida 07	5.93	5.00	1.65	2.60 a	92.33 a-e	0.00 a	3.43 cd
Sullivan	5.90	4.93	1.68	1.53 c-k	94.98 a-c	0.00 a	1.83 d
Wynne	5.93	5.00	1.60	0.73 j-m	95.88 ab	0.00 a	1.80 d
N08082oIJCT	5.90	4.95	1.58	0.80 i-m	95.30 a-c	0.00 a	2.33 d
Spain	5.90	4.98	1.68	1.95 a-f	82.38 f	0.00 a	14.00 b
N09037oI	5.88	5.00	1.58	0.88 h-m	95.93 ab	0.00 a	1.63 d
N09039oIF	5.88	4.95	1.70	1.20 f-m	93.80 a-e	0.00 a	3.30 cd
N09042oIF	5.90	5.00	1.65	0.95 h-m	94.25 a-d	0.00 a	3.15 cd
N10043oIJ	5.83	4.95	1.70	1.03 g-m	93.25 a-e	0.00 a	4.03 cd
N10046oI	5.88	5.00	1.68	0.48 m	96.33 a	0.00 a	1.53 d
N10047oI	5.88	5.00	1.63	1.20 f-m	94.85 a-c	0.00 a	2.33 d
N10051oI	5.88	4.95	1.65	1.13 f-m	95.38 a-c	0.00 a	1.85 d
N10053oI	5.88	5.98	1.65	2.00 a-f	93.55 a-e	0.00 a	2.80 cd
N10061oIFCLSm	5.93	4.95	1.63	1.78 a-h	94.80 a-d	0.00 a	1.80 d
N10066oISmT	5.90	4.98	1.80	1.00 g-m	95.25 a-c	0.00 a	1.95 d
N10070oICLSmT	5.90	4.98	1.58	1.73 a-h	94.73 a-d	0.00 a	1.98 d
N10078oIJC	5.90	4.95	1.65	1.60 c-j	93.93 a-d	0.00 a	2.83 cd
N10080oIJCL	5.88	4.95	1.60	1.45 d-l	94.35 a-d	0.00 a	2.60 cd
N10082oIJC	5.90	4.95	1.68	2.00 a-f	94.75 a-d	0.00 a	1.58 d
N11019oIJ	5.85	4.95	1.68	0.55 lm	95.43 a-c	0.00 a	2.35 d
N11020oIJ	5.88	4.98	1.68	1.35 d-m	94.45 a-d	0.00 a	2.53 cd
N11024oI	5.90	4.93	1.65	1.78 a-h	93.50 a-e	0.00 a	3.08 cd
N11028oI	5.88	5.03	1.70	2.53 ab	92.18 b-e	0.00 a	3.60 cd
N11034oI	5.88	4.95	1.63	0.63 k-m	94.45 a-d	0.00 a	3.30 cd
N11039oIFSr	5.85	4.88	1.65	1.45 d-l	95.28 a-c	0.00 a	1.63 d
N11048oI	5.93	4.95	1.65	1.90 a-g	91.63 c-e	0.00 a	4.83 cd
N11051oIJ	5.90	5.03	1.63	2.25 a-d	89.78 e	0.00 a	6.36 c
SPT 10-05	5.88	5.00	1.58	2.13 a-e	81.48 f	0.00 a	14.83 b
SPT 10-12oI	5.88	4.93	1.58	2.40 a-c	67.40 g	0.00 a	28.63 a
SPT 10-14oI	5.85	4.98	1.55	1.50 c-k	69.23 g	0.00 a	27.73 a
Mean	5.89	4.97	1.64	1.49	92.13	0.00	4.74

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 5. Laboratory sample blanching of Extra Large Kernels (ELK) from Martin County, NC, Dig 1, 2013 (19 September).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.65	4.70	1.70	1.60 b-j	94.35 a-d	0.00 b	2.35 g-i
CHAMPS	5.70	4.75	1.60	1.00 f-j	93.10 a-e	0.00 b	4.30 e-i
Phillips	5.75	4.75	1.60	0.90 g-j	93.95 a-d	0.00 b	3.55 f-i
Bailey	5.65	4.80	1.65	1.05 f-j	94.10 a-d	0.00 b	3.20 f-i
Sugg	5.70	4.80	1.60	2.00 b-h	93.35 a-e	0.00 b	3.05 f-i
Florida 07	5.70	4.75	1.60	1.75 b-i	93.65 a-e	0.00 b	3.00 f-i
Sullivan	5.75	4.70	1.65	1.50 c-j	94.60 a-c	0.00 b	2.25 g-i
Wynne	5.75	4.75	1.55	0.45 j	95.85 a	0.00 b	2.15 g-i
N08082oIJCT	5.65	4.70	1.60	0.65 ij	94.30 a-d	0.00 b	3.45 f-i
Spain	5.70	4.75	1.60	2.55 b-d	81.30 g	0.20 a	14.35 c
N09037oI	5.75	4.75	1.55	1.15 e-j	95.70 a	0.00 b	1.60 i
N09039oIF	5.65	4.75	1.60	1.65 b-j	92.10 a-e	0.00 b	4.65 e-i
N09042oIF	5.75	4.70	1.60	1.15 e-j	93.55 a-e	0.00 b	3.70 f-i
N10043oIJ	5.70	4.70	1.60	2.20 b-f	92.05 a-e	0.00 b	4.15 e-i
N10046oI	5.65	4.75	1.60	1.60 b-j	93.45 a-e	0.00 b	3.35 f-i
N10047oI	5.70	4.70	1.70	0.80 h-j	95.85 a	0.00 b	1.65 i
N10051oI	5.70	4.70	1.75	1.80 b-i	93.40 a-e	0.00 b	3.05 f-i
N10053oI	5.70	4.70	1.60	1.45 c-j	94.55 a-d	0.00 b	2.40 g-i
N10061oIFCLSm	5.65	4.70	1.70	1.60 b-j	94.75 ab	0.00 b	1.95 hi
N10066oISmT	5.75	4.75	1.65	2.05 b-h	90.95 b-f	0.00 b	5.35 d-h
N10070oIFCLSmT	5.70	4.75	1.60	1.40 d-j	94.40 a-d	0.00 b	2.60 g-i
N10078oIJC	5.65	4.75	1.65	1.90 b-i	90.80 c-f	0.00 b	5.65 d-g
N10080oIJCL	5.65	4.75	1.60	1.30 d-j	92.75 a-e	0.00 b	4.35 e-i
N10082oIJC	5.70	4.70	1.55	1.95 b-h	93.00 a-e	0.00 b	3.50 f-i
N11019oIJ	5.70	4.70	1.60	0.85 h-j	94.05 a-d	0.00 b	3.50 f-i
N11020oIJ	5.80	4.70	1.60	1.75 b-i	92.25 a-e	0.00 b	4.40 e-i
N11024oI	5.75	4.70	1.65	1.60 b-j	92.10 a-e	0.00 b	4.65 e-i
N11028oI	5.75	4.75	1.60	2.40 b-e	91.15 b-f	0.00 b	4.85 e-i
N11034oI	5.70	4.75	1.60	1.15 e-j	89.90 ef	0.00 b	7.35 de
N11039oIFSr	5.75	4.70	1.55	2.40 b-e	93.50 a-e	0.00 b	2.55 g-i
N11048oI	5.75	4.75	1.60	2.15 b-g	90.75 d-f	0.00 b	5.50 d-h
N11051oIJ	5.75	4.80	1.10	2.25 b-f	87.95 f	0.00 b	8.70 d
SPT 10-05	5.70	4.70	1.65	2.85 b	81.30 g	0.00 b	14.20 c
SPT 10-12oI	5.70	4.75	1.55	4.25 a	66.15 i	0.00 b	28.05 a
SPT 10-14oI	5.75	4.75	1.60	2.70 bc	71.95 h	0.00 b	23.75 b
Mean	5.71	4.73	1.60	1.70	91.05	0.01	5.65

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 6. Laboratory sample blanching of Extra Large Kernels (ELK) from Martin County, NC, Dig 2, 2013 (1 October).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.80	4.80	2.20	2.20 b-j	94.25 a-c	0.00 b	1.60 g
CHAMPS	5.75	4.75	1.65	1.15 j	92.25 a-d	0.00 b	4.95 d-g
Phillips	5.75	4.75	1.65	2.80 a-j	91.45 a-d	0.00 b	4.10 d-g
Bailey	5.75	4.70	1.60	1.50 ij	92.90 a-d	0.00 b	4.00 d-g
Sugg	5.75	4.75	1.65	1.70 g-j	94.65 a	0.00 b	2.00 e-g
Florida 07	5.75	4.90	1.70	3.85 a-d	89.85 a-d	0.00 b	4.60 d-g
Sullivan	5.75	4.80	1.65	2.95 a-j	90.95 a-d	0.00 b	4.45 d-g
Wynne	5.80	4.70	1.60	1.65 g-j	94.20 a-c	0.00 b	2.55 e-g
N08082oIJCT	5.75	4.75	1.65	1.55 h-j	92.25 a-d	0.00 b	4.55 d-g
Spain	5.70	4.75	1.55	2.70 a-j	81.15 e	1.10 a	13.50 c
N09037oI	5.75	4.80	1.60	3.70 a-f	92.45 a-d	0.00 b	2.25 e-g
N09039oIF	5.80	4.80	1.70	1.50 ij	91.35 a-d	0.00 b	5.45 d-g
N09042oIF	5.75	4.75	1.60	3.50 a-h	91.00 a-d	0.00 b	3.90 d-g
N10043oIJ	5.75	4.75	1.65	1.85 e-j	94.10 a-c	0.00 b	2.40 e-g
N10046oI	5.75	4.75	1.65	1.05 j	94.40 ab	0.00 b	2.90 e-g
N10047oI	5.70	4.80	1.60	1.75 f-j	94.75 a	0.00 b	1.90 fg
N10051oI	5.75	4.80	1.65	4.05 a-c	90.35 a-d	0.00 b	3.95 d-g
N10053oI	5.75	4.70	1.60	2.00 d-j	91.45 a-d	0.00 b	4.95 d-g
N10061oIFCLSm	5.65	4.80	1.65	3.95 a-d	92.80 a-d	0.00 b	1.60 g
N10066oISmT	5.70	4.80	1.60	1.80 f-j	91.25 a-d	0.00 b	5.35 d-g
N10070oICLSmT	5.70	4.75	1.70	2.05 d-j	92.05 a-d	0.00 b	4.20 d-g
N10078oIJC	5.70	4.85	1.70	2.10 c-j	92.20 a-d	0.00 b	4.00 d-g
N10080oIJCL	5.70	4.70	1.60	3.00 a-j	90.20 a-d	0.00 b	5.20 d-g
N10082oIJC	5.65	4.75	1.60	3.20 a-i	92.45 a-d	0.00 b	2.75 e-g
N11019oIJ	5.70	4.90	1.70	1.40 ij	88.50 d	0.00 b	8.40 d
N11020oIJ	5.70	4.70	1.65	1.55 h-j	91.05 a-d	0.00 b	5.75 d-g
N11024oI	5.75	4.75	1.60	1.80 f-j	94.05 a-c	0.00 b	2.55 e-g
N11028oI	5.70	4.80	1.60	2.05 d-j	89.85 a-d	0.00 b	6.50 d-f
N11034oI	5.70	4.80	1.65	3.20 a-i	91.50 a-d	0.00 b	3.65 e-g
N11039oIFSr	5.70	4.75	1.60	3.80 a-e	91.00 a-d	0.00 b	3.60 e-g
N11048oI	5.70	4.95	1.65	1.70 g-j	90.95 a-d	0.00 b	5.70 d-g
N11051oIJ	5.75	4.75	0.65	4.20 a	89.45 b-d	0.00 b	5.70 d-g
SPT 10-05	5.75	4.70	1.65	2.35 a-j	79.15 e	0.00 b	16.85 c
SPT 10-12oI	5.70	4.70	1.65	3.55 a-g	64.25 g	0.85 a	29.70 a
SPT 10-14oI	5.70	4.80	1.70	4.15 ab	70.70 f	0.00 b	23.45 b
Mean	5.73	4.77	1.63	2.49	89.84	0.05	5.98

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 7. Laboratory sample blanching of Extra Large Kernels (ELK). Averages of both digging dates from Martin County, NC, 2013.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.73	4.75	1.95	1.90 c-g	94.30 a-c	0.00 b	1.85 ij
CHAMPS	5.73	4.75	1.63	1.08 g	92.68 a-g	0.00 b	4.63 d-j
Phillips	5.75	4.75	1.63	1.85 c-g	92.70 a-g	0.00 b	3.83 e-j
Bailey	5.70	4.75	1.63	1.28 fg	93.50 a-f	0.00 b	3.60 e-j
Sugg	5.73	4.78	1.63	1.85 c-g	94.00 a-e	0.00 b	2.53 g-j
Florida 07	5.73	4.83	1.65	2.80 a-e	91.75 b-h	0.00 b	3.80 e-j
Sullivan	5.75	4.78	1.65	2.23 b-g	92.78 a-g	0.00 b	3.35 f-j
Wynne	5.78	4.73	1.58	1.05 g	95.03 ab	0.00 b	2.35 h-j
N08082oIJCT	5.70	4.73	1.63	1.10 g	93.28 a-g	0.00 b	4.00 e-j
Spain	5.70	4.75	1.58	2.63 a-f	81.23 i	0.65 a	13.93 c
N09037oI	5.75	4.78	1.58	2.43 b-g	94.08 a-d	0.00 b	1.93 ij
N09039oIF	5.73	4.78	1.65	1.58 e-g	91.73 b-h	0.00 b	5.05 d-h
N09042oIF	5.75	4.73	1.60	2.33 b-g	92.28 a-g	0.00 b	3.80 e-j
N10043oIJ	5.73	4.73	1.63	2.03 c-g	93.08 a-g	0.00 b	3.28 f-j
N10046oI	5.70	4.75	1.63	1.33 fg	93.93 a-e	0.00 b	3.13 f-j
N10047oI	5.70	4.75	1.65	1.28 fg	95.30 a	0.00 b	1.78 j
N10051oI	5.73	4.75	1.70	2.93 a-e	91.88 b-h	0.00 b	3.50 e-j
N10053oI	5.73	4.70	1.60	1.73 d-g	93.00 a-g	0.00 b	3.68 e-j
N10061oIFCLSm	5.65	4.75	1.68	2.78 a-e	93.78 a-f	0.00 b	1.78 j
N10066oISmT	5.73	4.78	1.63	1.93 c-g	91.10 c-h	0.00 b	5.35 d-h
N10070oICLSmT	5.70	4.75	1.65	1.73 d-g	93.23 a-g	0.00 b	3.40 f-j
N10078oIJC	5.68	4.80	1.68	2.00 c-g	91.50 c-h	0.00 b	4.83 d-i
N10080oIJCL	5.68	4.73	1.60	2.15 b-g	91.48 c-h	0.00 b	4.78 d-j
N10082oIJC	5.68	4.73	1.58	2.58 a-f	92.73 a-g	0.00 b	3.13 f-j
N11019oIJ	5.70	4.80	1.65	1.13 g	91.28 c-h	0.00 b	5.95 d-f
N11020oIJ	5.75	4.70	1.63	1.65 e-g	91.65 c-h	0.00 b	5.08 d-h
N11024oI	5.75	4.73	1.63	1.70 e-g	93.08 a-g	0.00 b	3.60 e-j
N11028oI	5.73	4.78	1.60	2.23 b-g	90.50 f-h	0.00 b	5.68 d-f
N11034oI	5.70	4.78	1.63	2.18 b-g	90.70 e-h	0.00 b	5.50 d-g
N11039oIFSr	5.73	4.73	1.58	3.10 a-d	92.25 a-g	0.00 b	3.08 f-j
N11048oI	5.73	4.85	1.63	1.93 c-g	90.85 d-h	0.00 b	5.60 d-f
N11051oIJ	5.75	4.78	0.88	3.23 a-c	88.70 h	0.00 b	7.20 d
SPT 10-05	5.73	4.70	1.65	2.60 a-f	80.23 i	0.00 b	15.53 c
SPT 10-12oI	5.70	4.73	1.60	3.90 a	65.20 k	0.43 a	28.88 a
SPT 10-14oI	5.73	4.78	1.65	3.43 ab	71.33 j	0.00 b	23.60 b
Mean	5.72	4.75	1.61	2.10	90.45	0.03	5.81

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 8. Laboratory sample blanching of Extra Large Kernels (ELK). Averages from Tidewater AREC (Suffolk) VA and Martin County, NC, 2013.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.81	4.88	1.79	1.61 c-k	94.63 a-c	0.00 b	1.98 hi
CHAMPS	5.79	4.86	1.66	1.14 h-k	93.89 a-d	0.00 b	3.31 e-i
Phillips	5.83	4.85	1.58	1.58 d-k	93.85 a-e	0.00 b	3.00 f-i
Bailey	5.80	4.88	1.63	1.48 e-k	94.33 a-c	0.00 b	2.58 g-i
Sugg	5.81	4.89	1.64	1.48 e-k	94.54 a-c	0.00 b	2.35 g-i
Florida 07	5.83	4.91	1.65	2.70 ab	92.04 c-f	0.00 b	3.61 e-i
Sullivan	5.83	4.85	1.66	1.88 b-h	93.88 a-e	0.00 b	2.59 g-i
Wynne	5.85	4.86	1.59	0.89 jk	95.45 a	0.00 b	2.08 hi
N08082oIJCT	5.80	4.84	1.60	0.95 i-k	94.29 a-c	0.00 b	3.16 f-i
Spain	5.80	4.86	1.63	2.29 a-f	81.80 h	0.33 a	13.96 c
N09037oI	5.81	4.89	1.58	1.65 c-k	95.00 ab	0.00 b	1.78 i
N09039oIF	5.80	4.86	1.68	1.39 g-k	92.76 b-f	0.00 b	4.18 e-i
N09042oIF	5.83	4.86	1.63	1.64 c-k	93.26 a-e	0.00 b	3.48 e-i
N10043oIJ	5.78	4.84	1.66	1.53 d-k	93.16 a-e	0.00 b	3.65 e-i
N10046oI	5.79	4.88	1.65	0.90 jk	95.13 ab	0.00 b	2.33 g-i
N10047oI	5.79	4.88	1.64	1.24 h-k	95.08 ab	0.00 b	2.05 hi
N10051oI	5.80	4.85	1.68	2.03 b-h	93.63 a-e	0.00 b	2.68 g-i
N10053oI	5.80	4.84	1.63	1.86 b-h	93.28 a-e	0.00 b	3.24 f-i
N10061oIFCLSm	5.79	4.85	1.65	2.28 a-g	94.29 a-c	0.00 b	1.79 i
N10066oISmT	5.81	4.88	1.71	1.46 f-k	93.18 a-e	0.00 b	3.65 e-i
N10070oICLSmT	5.80	4.86	1.61	1.73 c-k	93.98 a-d	0.00 b	2.69 g-i
N10078oIJC	5.79	4.88	1.66	1.80 c-i	92.71 b-f	0.00 b	3.83 e-i
N10080oIJCL	5.78	4.84	1.60	1.80 c-i	92.91 a-f	0.00 b	3.69 e-i
N10082oIJC	5.79	4.84	1.63	2.29 a-f	93.74 a-e	0.00 b	2.35 g-i
N11019oIJ	5.78	4.88	1.66	0.84 k	93.35 a-e	0.00 b	4.15 e-i
N11020oIJ	5.78	4.84	1.65	1.50 d-k	93.05 a-e	0.00 b	3.80 e-i
N11024oI	5.83	4.83	1.64	1.74 c-j	93.29 a-e	0.00 b	3.34 e-i
N11028oI	5.80	4.90	1.65	2.38 a-d	91.34 d-g	0.00 b	4.64 d-g
N11034oI	5.79	4.86	1.63	1.40 f-k	92.58 b-f	0.00 b	4.40 d-h
N11039oIFSr	5.79	4.80	1.61	2.28 a-g	93.76 a-e	0.00 b	2.35 g-i
N11048oI	5.83	4.90	1.64	1.91 b-h	91.24 e-g	0.00 b	5.21 d-f
N11051oIJ	5.83	4.90	1.25	2.74 ab	89.24 g	0.00 b	6.78 d
SPT 10-05	5.80	4.85	1.61	2.36 a-e	80.85 h	0.00 b	15.18 c
SPT 10-12oI	5.79	4.83	1.59	3.15 a	66.30 j	0.21 a	28.75 a
SPT 10-14oI	5.79	4.88	1.60	2.46 a-c	70.28 i	0.00 b	25.66 b
Mean	5.80	4.86	1.63	1.79	91.29	0.01	5.28

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 9. Laboratory sample blanching of Extra Large Kernels (ELK). Averages from Tidewater AREC (Suffolk) VA, and Martin County, NC. Two-year averages (2012- 2013).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.80	4.85	1.69	1.28 b-d	95.91 a	0.00 a	1.12 b
Phillips	5.80	4.87	1.57	1.77 ab	94.87 a	0.00 a	1.79 b
Bailey	5.79	4.88	1.62	1.68 bc	95.36 a	0.00 a	1.34 b
Sullivan	5.81	4.85	1.62	1.77 ab	95.13 a	0.00 a	1.48 b
Wynne	5.82	4.87	1.64	0.93 d	96.08 a	0.00 a	1.34 b
N08082oIJCT	5.80	4.88	1.59	0.92 d	95.49 a	0.00 a	1.99 b
N09037oI	5.79	4.89	1.60	1.48 b-d	95.72 a	0.00 a	1.20 b
N10046oI	5.77	4.87	1.60	0.89 d	96.14 a	0.00 a	1.37 b
N10047oI	4.78	4.87	1.69	1.12 cd	95.85 a	0.00 a	1.34 b
N10053oI	5.79	4.86	1.68	1.59 bc	95.00 a	0.00 a	1.73 b
N10066oISmT	5.81	4.88	1.68	1.58 bc	94.74 a	0.00 a	2.00 b
N10078oIJC	5.78	4.88	1.55	1.79 ab	94.63 a	0.00 a	2.03 b
N10080oIJCL	5.78	4.84	1.09	1.61 bc	94.74 a	0.00 a	2.55 b
N10082oIJC	5.78	4.86	1.58	1.63 bc	95.43 a	0.00 a	1.35 b
SPT 10-05	4.79	4.88	1.98	2.32 a	87.18 b	0.00 a	8.53 a
Mean	5.79	4.87	1.61	1.50	94.80	0.00	2.09

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 10. Laboratory sample blanching of Extra Large Kernels (ELK). Averages from Tidewater AREC (Suffolk) VA, and Martin County, NC. Three-year averages (2011- 2013).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.87	4.85	1.55	1.40 bc	95.64 a	0.00 a	1.41 b
Phillips	5.87	4.89	1.65	2.03 a	94.22 bc	0.00 a	2.10 b
Bailey	5.85	4.89	1.58	1.73 ab	95.15 a-c	0.00 a	1.53 b
Sullivan	5.89	4.87	1.56	2.00 a	94.09 c	0.42 a	2.53 ab
Wynne	5.88	4.87	1.60	1.08 c	95.51 ab	0.00 a	1.82 b
N08082olJCT	5.87	4.90	1.56	1.17 c	94.02 c	0.00 a	3.26 a
N09037ol	5.86	4.90	1.48	1.60 a-c	95.08 a-c	0.00 a	1.85 b
Mean	5.87	4.88	1.57	1.57	94.82	0.01	2.06

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 11. Laboratory sample blanching of Medium Kernels from Tidewater AREC (Suffolk) VA, Dig 1, 2013 (18 Septmeber).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.65	4.85	1.65	1.95 c-f	86.95 d-j	0.55 fg	8.90 e-h
CHAMPS	5.70	4.80	1.60	2.40 a-f	89.20 a-e	0.00 g	6.80 g-j
Phillips	5.85	4.90	1.65	2.25 a-f	87.30 c-j	1.45 e-g	7.35 f-j
Bailey	5.80	4.90	1.60	2.85 a-f	86.15 e-k	0.35 g	9.05 e-h
Sugg	5.80	4.85	1.70	2.65 a-f	88.50 b-f	1.20 fg	5.95 ij
Florida 07	5.80	4.90	1.60	3.55 ab	85.30 g-m	0.60 fg	8.95 e-h
Sullivan	5.85	4.85	1.60	2.10 b-f	87.65 c-i	1.35 e-g	7.30 f-j
Wynne	5.85	4.95	1.60	3.00 a-d	88.15 c-h	0.80 fg	6.45 h-j
N08082oIJCT	5.75	4.80	1.65	3.20 a-c	89.40 a-d	0.00 g	5.75 ij
Spain	5.65	4.80	1.70	2.60 a-f	63.50 q	11.60 a	20.60 cd
N09037oI	5.70	4.90	1.60	1.40 ef	83.05 k-m	2.50 c-g	11.45 e
N09039oIF	5.80	4.80	1.60	1.50 ef	91.80 a	0.30 g	4.80 j
N09042oIF	5.80	4.90	1.65	2.60 a-f	89.15 a-e	1.00 fg	5.60 ij
N10043oIJ	5.85	4.90	2.15	2.95 a-e	82.60 lm	3.45 b-f	8.85 e-h
N10046oI	5.70	4.80	1.70	1.85 c-f	86.25 r-j	2.25 c-g	7.95 f-i
N10047oI	5.65	4.90	1.35	2.90 a-e	84.95 i-m	2.80 b-g	8.00 f-i
N10051oI	5.70	4.90	1.65	1.80 c-f	84.50 j-m	2.15 c-g	9.90 ef
N10053oI	5.75	4.85	1.65	1.65 d-f	88.25 b-g	1.10 fg	7.35 f-j
N10061oIFCLSm	5.75	4.95	1.70	2.30 a-f	88.20 c-g	1.00 fg	6.80 g-j
N10066oISmT	5.70	4.80	1.25	2.00 c-f	85.05 h-m	2.10 c-g	9.20 e-h
N10070oICLSmT	5.75	4.85	1.65	1.80 c-f	87.25 c-j	1.95 d-g	7.35 f-j
N10078oIJC	5.80	4.95	1.60	2.10 b-f	86.60 d-j	0.80 fg	8.90 e-h
N10080oIJCL	5.70	4.80	1.70	1.95 c-f	86.35 d-j	2.15 c-g	7.85 f-i
N10082oIJC	5.70	4.85	1.65	2.40 a-f	84.60 i-m	2.20 c-g	9.15 e-h
N11019oIJ	5.75	4.85	1.65	1.90 c-f	82.20 m	2.65 b-g	11.60 e
N11020oIJ	5.70	4.80	1.60	1.85 c-f	70.00 o	4.95 bc	21.60 bc
N11024oI	5.80	4.80	1.65	2.45 a-f	82.50 m	2.15 c-g	11.25 e
N11028oI	5.75	4.80	1.60	2.45 a-f	90.20 a-c	0.00 g	5.75 ij
N11034oI	5.75	4.90	1.70	1.80 c-f	91.35 ab	0.00 g	5.15 ij
N11039oIFSr	5.80	4.75	1.65	2.75 a-f	88.90 a-e	1.40 e-g	5.30 ij
N11048oI	5.65	4.75	1.70	2.00 c-f	84.80 i-m	1.80 e-g	9.70 ef
N11051oIJ	5.80	4.80	1.60	3.65 a	72.10 no	4.20 b-e	18.45 d
SPT 10-05	5.80	4.85	1.65	3.05 a-d	73.35 n	1.50 e-g	20.45 cd
SPT 10-12oI	5.80	4.90	1.60	2.30 a-f	66.75 p	5.60 b	23.75 b
SPT 10-14oI	5.75	4.90	1.65	2.35 a-f	62.00 q	4.85 b-d	29.15 a
Mean	5.76	4.85	1.64	2.37	83.63	2.03	10.33

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 12. Laboratory sample blanching of Medium Kernels from Tidewater AREC (Suffolk) VA, Dig 2, 2013 (30 September).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.75	4.85	1.65	3.45 a-d	84.00 a-g	0.95 c-g	9.95 k-m
CHAMPS	5.75	4.95	1.60	2.70 a-e	81.00 h-j	1.50 c-g	13.20 d-g
Phillips	5.75	4.95	1.55	3.40 a-d	81.75 d-i	1.05 c-g	12.25 e-j
Bailey	5.70	4.90	1.60	3.65 a-c	83.95 a-h	0.95 c-g	9.85 lm
Sugg	5.75	5.00	1.60	3.20 a-d	84.60 a-d	0.70 e-g	9.90 lm
Florida 07	5.75	4.95	1.60	3.85 ab	83.75 a-i	0.70 e-g	10.10 j-m
Sullivan	5.80	5.05	1.60	3.60 a-d	82.50 c-i	1.35 c-g	10.95 h-l
Wynne	5.65	4.85	1.60	3.40 a-d	84.30 a-f	0.15 g	10.55 j-m
N08082oIJCT	5.75	5.00	1.65	1.35 e	81.50 f-i	2.00 c-g	13.50 d-f
Spain	5.70	4.85	1.25	3.20 a-d	60.80 m	9.10 a	25.30 b
N09037oI	5.80	4.90	1.60	2.00 de	81.30 g-j	2.05 c-g	13.05 d-h
N09039oIF	5.75	4.85	1.60	3.55 a-d	84.50 a-e	1.10 c-g	9.25 lm
N09042oIF	5.65	4.90	1.60	3.05 a-d	83.95 a-h	0.75 d-g	10.65 i-m
N10043oIJ	5.75	5.00	1.65	3.65 a-c	80.85 ij	2.80 cd	11.05 g-l
N10046oI	5.75	4.95	1.60	2.30 b-e	78.45 jk	2.90 c	14.75 d
N10047oI	5.75	4.95	1.65	2.10 c-e	83.90 a-h	2.05 c-g	10.30 j-m
N10051oI	5.75	4.95	1.65	3.25 a-d	82.00 d-i	1.85 c-g	11.25 g-l
N10053oI	5.70	4.95	1.55	2.35 b-e	85.35 a-c	1.10 c-g	9.65 lm
N10061oIFCLSm	5.70	4.95	1.65	3.80 ab	83.30 b-i	0.95 c-g	10.30 j-m
N10066oISmT	5.70	4.90	1.60	3.30 a-d	85.05 a-c	0.00 g	10.05 j-m
N10070oICLSmT	5.70	4.90	1.70	2.00 de	85.95 ab	0.20 g	10.15 j-m
N10078oIJC	5.75	4.90	1.60	3.30 a-d	82.45 c-i	0.45 fg	12.20 e-j
N10080oIJCL	5.75	4.95	1.65	3.15 a-d	80.80 ij	1.55 c-g	12.85 d-i
N10082oIJC	5.75	4.95	1.70	2.90 a-e	81.60 e-i	2.45 c-f	11.35 f-l
N11019oIJ	5.70	4.80	1.60	2.60 a-e	83.15 b-i	1.20 c-g	11.45 e-l
N11020oIJ	5.65	4.85	1.65	2.15 c-e	82.50 c-i	2.60 c-e	11.10 g-l
N11024oI	5.70	4.90	1.50	2.45 b-e	82.00 d-i	1.90 c-g	12.15 e-k
N11028oI	5.70	4.85	1.70	3.10 a-d	83.65 a-i	0.40 fg	11.15 g-l
N11034oI	5.70	4.95	1.65	3.20 a-d	83.60 a-i	0.60 e-g	10.95 h-l
N11039oIFSr	5.70	4.90	1.60	2.85 a-e	86.50 a	0.55 e-g	8.50 m
N11048oI	5.65	4.85	1.60	3.05 a-d	81.20 g-j	1.05 c-g	13.10 d-h
N11051oIJ	5.70	4.85	1.60	2.90 a-e	76.70 k	1.55 c-g	14.75 c
SPT 10-05	5.65	4.85	1.60	4.10 a	64.05 l	2.35 c-f	27.90 a
SPT 10-12oI	5.65	4.90	1.65	3.30 a-d	59.95 m	6.55 b	28.55 a
SPT 10-14oI	5.80	4.95	1.60	3.25 a-d	61.45 lm	8.15 ab	25.55 b
Mean	5.72	4.92	1.61	3.02	80.38	1.83	13.16

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 13. Laboratory sample blanching of Medium Kernels. Averages from both digging dates from Tidewater AREC (Suffolk) VA, 2013.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.70	4.85	1.65	2.70 a-g	85.48 a-g	0.75 g-j	9.43 e-k
CHAMPS	5.73	4.88	1.60	2.55 b-g	85.10 a-h	0.75 g-j	10.00 e-i
Phillips	5.80	4.93	1.60	2.83 a-f	84.53 a-h	1.25 e-j	9.80 e-k
Bailey	5.75	4.90	1.60	3.25 a-c	85.05 a-h	0.65 h-j	9.45 e-k
Sugg	5.78	4.93	1.65	2.93 a-f	86.55 a-e	0.95 f-j	7.93 i-k
Florida 07	5.78	4.93	1.60	3.70 a	84.53 a-h	0.65 h-j	9.53 e-k
Sullivan	5.83	4.95	1.60	2.85 a-f	85.08 a-h	1.35 e-j	9.13 f-k
Wynne	5.75	4.90	1.60	3.20 a-c	86.23 a-f	0.48 ij	8.50 g-k
N08082oIJCT	5.75	4.90	1.65	2.28 c-g	85.45 a-g	1.00 f-j	9.63 e-k
Spain	5.68	4.83	1.48	2.90 a-f	62.15 k	10.35 a	22.95 c
N09037oI	5.75	4.90	1.60	1.70 g	82.18 gh	2.28 c-h	12.25 e
N09039oIF	5.78	4.83	1.60	2.53 b-g	88.15 a	0.70 g-j	8.03 jk
N09042oIF	5.73	4.90	1.63	2.83 a-f	86.55 a-e	0.88 f-j	8.13 i-k
N10043oIJ	5.80	4.95	1.90	3.30 a-c	81.73 h	3.13 cd	9.95 e-k
N10046oI	5.73	4.88	1.65	2.08 d-g	82.35 gh	2.58 c-f	11.35 e-h
N10047oI	5.70	4.93	1.50	2.50 c-g	84.43 b-h	2.43 c-g	9.15 f-k
N10051oI	5.73	4.93	1.65	2.53 b-g	83.25 d-h	2.00 d-i	10.58 e-i
N10053oI	5.73	4.90	1.60	2.00 e-g	86.80 a-d	1.10 f-j	8.50 g-k
N10061oIFCLSm	5.73	4.95	1.68	3.05 a-e	85.75 a-g	0.98 f-j	8.55 g-k
N10066oISmT	5.70	4.85	1.43	2.65 a-g	85.05 a-h	1.05 f-j	9.63 e-k
N10070oICLSmT	5.73	4.88	1.68	1.90 fg	86.60 a-e	1.08 f-j	8.75 f-k
N10078oIJC	5.78	4.93	1.60	2.70 a-g	84.53 a-h	0.63 h-j	10.55 e-i
N10080oIJCL	5.73	4.88	1.68	2.55 b-g	83.58 c-h	1.85 d-j	10.35 e-i
N10082oIJC	5.73	4.90	1.68	2.65 a-g	83.10 e-h	2.33 c-h	10.25 e-i
N11019oIJ	5.73	4.83	1.63	2.25 c-g	82.68 f-h	1.93 d-j	11.53 e-g
N11020oIJ	5.68	4.83	1.63	2.00 e-g	76.25 i	3.78 c	16.35 d
N11024oI	5.75	4.85	1.58	2.45 c-g	82.25 gh	2.03 d-i	11.70 ef
N11028oI	5.73	4.83	1.65	2.78 a-f	86.93 a-c	0.20 j	8.45 h-k
N11034oI	5.73	4.93	1.68	2.50 c-g	87.48 ab	0.30 ij	8.05 i-k
N11039oIFSr	5.75	4.83	1.63	2.80 a-f	87.70 ab	0.98 f-j	6.90 k
N11048oI	5.65	4.80	1.65	2.53 b-g	83.00 e-h	1.43 d-j	11.40 e-h
N11051oIJ	5.75	4.83	1.60	3.28 a-c	74.40 i	2.88 c-e	17.85 d
SPT 10-05	5.73	4.85	1.63	3.58 ab	68.70 j	1.93 d-j	24.18 bc
SPT 10-12oI	5.73	4.90	1.63	2.80 a-f	63.35 k	6.08 b	26.15 ab
SPT 10-14oI	5.78	4.93	1.63	2.80 a-f	61.73 k	6.50 b	27.35 a
Mean	5.74	4.88	1.62	2.69	82.00	1.93	11.74

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 14. Laboratory sample blanching of Medium Kernels from Martin County, NC, Dig 1, 2013 (19 September).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.70	4.95	1.65	3.30 b-g	80.85 b-i	0.95 g-l	13.25 d-j
CHAMPS	5.75	4.90	1.65	2.35 fg	82.15 a-g	0.55 i-l	13.30 d-j
Phillips	5.70	4.85	1.70	3.40 b-g	81.95 a-g	2.15 e-i	10.80 g-k
Bailey	5.65	4.90	1.70	4.30 a-d	82.75 a-d	0.25 j-l	11.00 g-k
Sugg	5.65	4.85	1.65	3.15 c-g	83.95 ab	1.70 e-l	9.55 k
Florida 07	5.65	4.85	1.60	4.45 a-c	78.80 g-k	1.70 e-l	13.45 c-j
Sullivan	5.70	4.90	1.70	2.85 c-g	79.85 d-j	0.15 kl	15.45 b-e
Wynne	5.65	4.90	1.60	2.30 fg	82.95 a-d	1.15 f-l	12.00 e-k
N08082oIJCT	5.65	4.90	1.65	2.70 d-g	83.15 a-d	1.30 f-l	11.20 g-k
Spain	5.70	4.90	1.65	5.25 a	56.50 n	5.00 ab	31.60 a
N09037oI	5.70	4.85	1.60	3.05 c-g	82.60 a-d	0.85 h-l	11.90 e-k
N09039oIF	5.65	4.90	1.70	2.75 d-g	81.90 a-g	0.35 j-l	13.30 d-j
N09042oIF	5.70	4.90	1.60	2.80 d-g	82.95 a-d	0.00 l	12.65 d-k
N10043oIJ	5.65	4.90	1.65	3.10 c-g	79.00 f-k	2.60 c-g	13.65 c-j
N10046oI	5.70	4.95	1.60	3.00 c-g	77.60 i-l	1.65 f-l	16.15 b-d
N10047oI	5.70	4.90	1.60	2.35 fg	83.40 a-c	1.80 e-k	10.85 g-k
N10051oI	5.70	4.95	1.65	3.50 b-g	78.40 h-l	1.10 f-l	15.35 b-e
N10053oI	5.70	4.90	1.60	3.25 c-g	82.55 a-e	1.90 e-j	10.70 h-k
N10061oIFCLSm	5.65	4.90	1.65	3.40 b-g	82.70 a-d	1.80 e-k	10.45 i-k
N10066oISmT	5.65	4.95	1.70	3.25 c-g	82.10 a-g	0.55 i-l	12.40 e-k
N10070oICLSmT	5.60	4.90	1.60	2.85 c-g	82.25 a-f	1.90 e-j	11.40 f-k
N10078oIJC	5.65	4.85	1.80	2.80 d-g	80.45 c-i	1.85 e-k	13.10 d-k
N10080oIJCL	5.70	4.90	1.60	3.50 b-g	76.50 j-l	3.40 b-e	15.00 b-f
N10082oIJC	5.65	4.85	1.60	3.75 a-f	79.20 e-k	2.40 d-h	13.05 d-k
N11019oIJ	5.65	4.85	1.70	2.00 g	77.95 h-l	4.05 a-d	14.30 b-h
N11020oIJ	5.75	4.90	1.65	3.15 c-g	80.00 d-i	1.15 f-l	14.05 b-i
N11024oI	5.70	4.95	1.70	2.95 c-g	78.90 f-k	1.30 f-l	15.15 b-e
N11028oI	5.65	4.90	3.20	2.95 c-g	76.10 kl	0.40 j-l	17.35 b
N11034oI	5.65	4.90	1.60	2.60 e-g	81.15 a-h	0.25 j-l	14.40 b-g
N11039oIFSr	5.70	4.95	1.70	2.90 c-g	84.45 a	0.55 i-l	10.40 jk
N11048oI	5.70	4.90	1.65	3.65 a-f	78.95 f-k	2.75 c-f	13.00 d-k
N11051oIJ	5.70	4.80	1.70	3.80 a-f	75.25 l	1.10 f-l	17.00 bc
SPT 10-05	5.70	4.90	1.65	3.60 b-g	58.20 mn	4.70 ab	31.85 a
SPT 10-12oI	5.70	4.85	1.65	3.70 a-f	59.15 mn	5.40 a	30.10 a
SPT 10-14oI	5.70	4.90	1.80	4.90 ab	60.80 m	4.25 a-c	28.25 a
Mean	5.68	4.89	1.70	3.27	78.21	1.79	15.03

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 15. Laboratory sample blanching of Medium Kernels from Martin County, NC, Dig 2, 2013 (1 October).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.70	4.90	1.70	2.55 c-g	82.25 ab	2.80 f-i	10.70 i-k
CHAMPS	5.65	4.85	1.65	3.70 a-d	80.10 b-h	2.85 f-i	11.70 g-k
Phillips	5.65	4.85	1.70	3.70 a-d	81.30 a-f	2.40 g-j	10.90 h-k
Bailey	5.65	4.85	1.70	3.60 a-d	82.65 ab	1.70 i-l	10.35 jk
Sugg	5.70	4.90	1.90	2.95 c-g	81.40 a-e	1.00 kl	12.75 f-k
Florida 07	5.70	4.90	1.65	3.70 a-d	77.65 h-k	1.70 i-l	15.30 d-f
Sullivan	5.70	5.94	1.60	2.50 d-g	81.45 a-e	2.75 f-j	11.70 g-k
Wynne	5.70	4.90	1.70	3.65 a-d	81.65 a-e	1.50 j-l	11.50 g-k
N08082oIJCT	5.70	4.90	1.60	3.05 b-g	82.15 a-c	2.30 g-j	10.90 h-k
Spain	5.65	4.85	1.70	2.25 d-h	56.75 n	6.05 a	33.25 a
N09037oI	5.60	4.85	1.60	3.40 a-e	81.10 a-g	3.30 d-g	10.60 i-k
N09039oIF	5.60	4.90	1.60	2.65 c-g	83.20 a	1.60 i-l	10.95 h-k
N09042oIF	5.60	4.80	1.60	4.80 a	80.90 a-g	0.75 l	11.95 g-k
N10043oIJ	5.60	4.85	1.65	3.60 a-d	78.60 f-j	3.05 e-h	13.10 f-j
N10046oI	5.70	4.90	1.70	3.20 b-g	79.45 c-i	1.95 h-l	13.70 e-h
N10047oI	5.60	4.80	2.05	0.80 h	78.00 h-k	4.90 a-c	14.25 e-g
N10051oI	5.60	4.85	1.65	2.45 d-g	78.50 g-j	3.25 e-g	14.15 e-g
N10053oI	5.60	4.85	1.65	3.30 b-f	79.30 d-j	2.05 g-k	13.70 e-h
N10061oIFCLSm	5.60	4.90	1.70	4.50 ab	81.95 a-d	1.80 h-l	10.05 k
N10066oISmT	5.60	4.80	1.70	2.95 c-g	81.55 a-e	0.75 l	13.05 f-j
N10070oICLSmT	5.65	4.90	1.60	3.30 b-f	80.95 a-g	2.60 f-j	11.55 g-k
N10078oIJC	5.70	4.90	1.60	4.00 a-c	79.20 d-j	1.90 h-l	13.30 f-i
N10080oIJCL	5.55	4.80	1.65	2.95 c-g	79.05 e-j	2.25 g-k	14.10 e-g
N10082oIJC	5.60	4.85	1.15	2.10 e-h	80.85 a-g	2.25 g-k	13.65 f-h
N11019oIJ	5.55	4.80	1.55	2.40 d-g	73.75 l	2.60 f-j	19.70 c
N11020oIJ	5.65	4.95	1.60	1.75 gh	77.00 i-k	4.55 b-d	15.10 d-f
N11024oI	5.65	4.90	1.65	3.20 b-g	76.55 jk	2.10 g-k	16.50 de
N11028oI	5.60	4.80	1.65	2.80 c-g	80.20 b-h	1.65 i-l	13.70 e-h
N11034oI	5.65	4.90	1.65	2.95 c-g	81.70 a-e	1.60 i-l	12.05 g-k
N11039oIFSr	5.60	4.85	2.65	2.85 c-g	80.95 a-g	1.90 h-l	11.65 g-k
N11048oI	5.60	4.80	1.65	2.55 c-g	75.40 kl	3.25 e-g	17.15 cd
N11051oIJ	5.65	4.85	1.65	2.65 c-g	68.90 m	3.25 e-g	23.55 b
SPT 10-05	5.60	4.80	1.65	1.90 f-h	57.50 n	4.25 c-e	34.70 a
SPT 10-12oI	5.60	4.80	1.65	3.55 a-e	57.95 n	3.85 c-f	33.00 a
SPT 10-14oI	5.60	4.85	1.70	4.00 a-c	56.45 n	5.55 ab	32.30 a
Mean	5.63	4.86	1.68	3.06	77.12	2.58	15.56

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 16. Laboratory sample blanching of Medium Kernels. Averages from both digging dates from Martin County, NC, 2013.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.70	4.93	1.68	2.93 b-g	81.55 a-c	1.88 e-k	11.98 i-m
CHAMPS	5.70	4.88	1.65	3.03 b-g	81.13 a-d	1.70 f-l	12.50 f-m
Phillips	5.68	4.85	1.70	3.55 a-f	81.63 a-c	2.28 d-h	10.85 lm
Bailey	5.65	4.88	1.70	3.95 a-d	82.70 a	0.98 i-m	10.68 lm
Sugg	5.68	4.88	1.78	3.05 b-g	82.68 a	1.35 g-m	11.15 k-m
Florida 07	5.68	4.88	1.63	4.08 ab	78.23 f-j	1.70 f-l	14.38 d-j
Sullivan	5.70	4.93	1.65	2.68 e-h	80.65 a-g	1.45 g-m	13.58 e-k
Wynne	5.68	4.90	1.65	2.98 b-g	82.30 a-c	1.33 g-m	11.75 j-m
N08082oIJCT	5.68	4.90	1.63	2.88 c-g	82.65 a	1.80 e-l	11.05 k-m
Spain	5.68	4.88	1.68	3.75 a-e	56.63 l	5.53 a	32.43 ab
N09037oI	5.65	4.85	1.60	3.23 b-g	81.85 a-c	2.08 d-j	11.25 k-m
N09039oIF	5.63	4.90	1.65	2.70 e-h	82.55 ab	0.98 i-m	12.13 h-m
N09042oIF	5.65	4.85	1.60	3.80 a-e	81.93 a-c	0.38 m	12.30 g-m
N10043oIJ	5.63	4.88	1.65	3.35 a-g	78.80 d-i	2.83 d-f	13.38 e-l
N10046oI	5.70	4.93	1.65	3.10 b-g	78.53 e-i	1.80 e-l	14.93 d-g
N10047oI	5.65	4.85	1.83	1.58 h	80.70 a-f	3.35 b-d	12.55 f-m
N10051oI	5.65	4.90	1.65	2.98 b-g	78.45 e-i	2.18 d-j	14.75 d-h
N10053oI	5.65	4.88	1.63	3.28 a-g	80.93 a-e	1.98 e-j	12.20 h-m
N10061oIFCLSm	5.63	4.90	1.68	3.95 a-d	82.33 a-c	1.80 e-l	10.25 m
N10066oISmT	5.63	4.88	1.70	3.10 b-g	81.83 a-c	0.65 k-m	12.73 f-m
N10070oICLSmT	5.63	4.90	1.60	3.08 b-g	81.60 a-c	2.25 d-i	11.48 k-m
N10078oIJC	5.68	4.88	1.70	3.40 a-f	79.83 c-h	1.88 e-k	13.20 e-l
N10080oIJCL	5.63	4.85	1.63	3.23 b-g	77.78 h-j	2.83 d-f	14.55 d-i
N10082oIJC	5.63	4.85	1.38	2.93 b-g	80.03 c-h	2.33 d-g	13.35 e-l
N11019oIJ	5.60	4.83	1.63	2.20 gh	75.85 j	3.33 cd	17.00 d
N11020oIJ	5.70	4.93	1.63	2.45 f-h	78.50 e-i	2.85 d-f	14.58 d-i
N11024oI	5.68	4.93	1.68	3.08 b-g	77.73 h-j	1.70 f-l	15.83 de
N11028oI	5.63	4.85	2.43	2.88 c-g	78.15 g-j	1.03 h-m	15.53 de
N11034oI	5.65	4.90	1.63	2.78 d-g	81.43 a-c	0.95 j-m	13.23 e-l
N11039oIFSr	5.65	4.90	2.18	2.88 c-g	82.70 a	1.23 g-m	11.03 k-m
N11048oI	5.65	4.85	1.65	3.10 b-g	77.18 ij	3.00 de	15.08 d-f
N11051oIJ	5.68	4.83	1.68	3.23 b-g	72.08 k	2.75 d-f	20.28 c
SPT 10-05	5.65	4.85	1.65	2.75 e-h	57.85 l	4.48 a-c	33.28 a
SPT 10-12oI	5.65	4.83	1.65	3.63 a-f	58.55 l	4.63 ab	31.55 ab
SPT 10-14oI	5.65	4.88	1.75	4.45 a	58.63 l	4.90 a	30.28 b
Mean	5.66	4.88	1.69	3.17	77.66	2.18	15.30

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

Blanching Results

Table 17. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk) VA and Martin County, NC, 2013.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.70	4.89	1.66	2.81 b-g	83.51 a-e	1.31 h-m	10.70 f-k
CHAMPS	5.71	4.88	1.63	2.79 b-g	83.11 a-f	1.23 h-m	11.25 e-k
Phillips	5.74	4.89	1.65	3.19 a-e	83.08 a-f	1.76 e-l	10.33 f-k
Bailey	5.70	4.89	1.65	3.60 a-c	83.88 a-d	0.81 k-m	10.06 h-k
Sugg	5.73	4.90	1.71	2.99 b-f	84.61 ab	1.15 h-l	9.54 i-k
Florida 07	5.73	4.90	1.61	3.89 a	81.38 b-g	1.18 h-m	11.95 d-j
Sullivan	5.76	4.94	1.63	2.76 c-g	82.86 a-f	1.40 h-m	11.35 d-k
Wynne	5.71	4.90	1.63	3.09 a-e	84.26 ab	0.90 j-m	10.13 h-k
N08082oIJCT	5.71	4.90	1.64	2.58 d-g	84.05 a-c	1.40 h-m	10.34 f-k
Spain	5.68	4.85	1.58	3.33 a-d	59.39 k	7.94 a	27.69 a
N09037oI	5.70	4.88	1.60	2.46 e-g	82.01 a-g	2.18 c-i	11.75 d-k
N09039oIF	5.70	4.86	1.63	2.61 d-g	85.35 a	0.84 k-m	9.58 i-k
N09042oIF	5.69	4.88	1.61	3.31 a-e	84.24 ab	0.63 lm	10.21 g-k
N10043oIJ	5.71	4.91	1.78	3.33 a-d	80.26 e-h	2.98 c-e	11.66 d-k
N10046oI	5.71	4.90	1.65	2.59 d-g	80.44 e-h	2.19 c-i	13.14 c-g
N10047oI	5.68	4.89	1.66	2.04 g	82.56 a-g	2.89 c-e	10.85 e-k
N10051oI	5.69	4.91	1.65	2.75 c-g	80.85 c-g	2.09 d-j	12.66 c-h
N10053oI	5.69	4.89	1.61	2.64 d-g	83.86 a-d	1.54 g-m	10.35 f-k
N10061oIFCLSm	5.68	4.93	1.68	3.50 a-c	84.04 a-c	1.39 h-m	9.40 jk
N10066oISmT	5.66	4.86	1.56	2.88 b-g	83.44 a-e	0.85 k-m	11.18 e-k
N10070oICLSmT	5.68	4.89	1.64	2.49 d-g	84.10 a-c	1.66 f-l	10.11 h-k
N10078oIJC	5.73	4.90	1.65	3.05 a-f	82.18 a-g	1.25 h-m	11.88 d-k
N10080oIJCL	5.68	4.86	1.65	2.89 b-g	80.68 d-h	2.34 c-h	12.45 d-i
N10082oIJC	5.68	4.88	1.53	2.79 b-g	81.56 b-g	2.33 c-h	11.80 d-k
N11019oIJ	5.66	4.83	1.63	2.23 fg	79.26 gh	2.63 c-g	14.26 cd
N11020oIJ	5.69	4.88	1.63	2.23 fg	77.38 h	3.31 c	15.46 c
N11024oI	5.71	4.89	1.63	2.76 c-g	79.99 f-h	1.86 e-k	13.76 c-e
N11028oI	5.68	4.84	2.04	2.83 b-g	82.54 a-g	0.61 lm	11.99 d-j
N11034oI	5.69	4.91	1.65	2.64 d-g	84.45 ab	0.63 lm	10.64 f-k
N11039oIFSr	5.70	4.86	1.90	2.84 b-g	85.20 a	1.10 i-m	8.96 k
N11048oI	5.65	4.83	1.65	2.81 b-g	80.09 f-h	2.21 c-i	13.24 c-f
N11051oIJ	5.71	4.83	1.64	3.25 a-e	73.24 i	2.81 c-f	19.06 b
SPT 10-05	5.69	4.85	1.64	3.16 a-e	63.28 j	3.20 cd	28.73 a
SPT 10-12oI	5.69	4.86	1.64	3.21 a-e	60.95 jk	5.35 b	28.85 a
SPT 10-14oI	5.71	4.90	1.69	3.63 ab	60.18 jk	5.70 b	28.81 a
Mean	5.70	4.88	1.66	2.93	79.83	2.06	13.52

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 18. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk) VA, and Martin County, NC. Two-year averages (2013- 2013).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.69	4.86	1.61	2.43 cd	88.21 a	0.98 c-f	6.78 b
Phillips	5.75	4.89	1.58	2.95 a-c	87.39 a	1.34 b-e	6.74 b
Bailey	5.73	4.89	1.58	3.18 a	88.56 a	0.59 ef	6.09 b
Sullivan	5.74	4.92	1.59	2.53 b-d	88.31 a	0.93 c-f	6.63 b
Wynne	5.73	4.91	1.57	2.57 a-d	88.60 a	0.57 f	6.69 b
N08082oIJCT	5.69	4.94	1.61	2.13 de	88.38 a	1.05 c-f	6.83 b
N09037ol	5.71	4.93	1.53	2.43 cd	86.96 a	1.56 a-c	7.53 b
N10046ol	5.70	4.89	1.58	2.08 de	86.19 a	1.45 a-d	8.71 b
N10047ol	5.68	4.88	1.60	1.77 e	87.63 a	1.94 ab	7.06 b
N10053ol	5.69	4.89	1.58	2.42 cd	87.86 a	1.36 b-d	6.78 b
N10066olSmT	5.69	4.89	1.54	2.42 cd	88.22 a	0.76 d-f	7.01 b
N10078oIJC	5.73	4.91	1.59	2.46 b-d	88.04 a	0.79 d-f	7.13 b
N10080oIJCL	5.71	4.89	1.57	2.63 a-d	86.63 a	1.47 a-d	7.71 b
N10082oIJC	5.69	4.90	1.54	2.53 b-d	87.41 a	1.29 c-f	7.23 b
SPT 10-05	5.71	4.88	1.60	3.07 ab	75.34 b	2.15 a	17.84 a
Mean	5.71	4.90	1.58	2.51	86.89	1.21	7.80

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Blanching Results

Table 19. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk), VA and Martin County, NC. Three-year averages (2011- 2013).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Gregory	5.75	4.86	1.76	3.48 ab	85.82 a	1.08 b-d	7.85 ab
Phillips	5.79	4.91	1.78	4.03 a	84.99 a	1.62 a-c	7.59 ab
Bailey	5.78	4.90	1.74	3.40 a-c	87.83 a	0.71 d	6.32 b
Sullivan	5.80	4.93	1.72	2.70 bc	85.84 a	0.79 cd	8.95 ab
Wynne	5.80	4.92	1.67	2.44 c	86.38 a	0.73 d	8.78 ab
N08082oIJCT	5.77	4.96	1.75	2.50 bc	84.78 a	1.70 ab	9.27 ab
N09037ol	5.78	4.93	1.67	2.55 bc	84.21 a	1.95 a	9.62 a
Mean	5.78	4.91	1.73	3.02	85.70	1.22	8.34

¹ Means sharing the same letter(s) are not statistically different, at P=0.05 based on the Fisher's protected LSD test.

Fatty Acid Results

Table 20. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 1, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	8.86 d	2.90 bc	54.38 j	26.59 b	1.45 b	1.35 no
CHAMPS	9.39 c	2.76 c-e	52.04 k	28.17 b	1.42 bc	1.44 mn
Phillips	9.61 c	2.53 f-i	50.00 k-m	30.57 a	1.33 d-f	1.36 no
Bailey	9.64 bc	2.27 k-p	49.42 lm	31.24 a	1.28 e-i	1.47 mn
Sugg	9.44 c	2.34 h-o	50.76 kl	30.21 a	1.29 e-h	1.43 mn
Florida 07	6.35 f	2.45 g-l	77.97 e-g	4.52 f-h	1.28 e-i	2.30 a
Sullivan	5.72 j-m	2.47 f-k	79.50 a-e	4.91 e-h	1.27 e-j	1.95 c-e
Wynne	6.02 f-j	2.44 g-l	79.19 a-e	5.37 e-h	1.25 g-k	1.79 f-j
N08082oIJCT	6.33 f	2.61 e-g	76.07 g-i	7.69 cd	1.33 de	1.77 h-j
Spain	6.07 f-i	3.77 a	75.85 hi	5.93 d-g	1.72 a	1.70 i-k
N09037ol	5.85 h-l	2.15 o-q	79.42 a-e	5.41 e-h	1.16 n-q	1.96 b-e
N09039oIF	6.15 f-h	2.21 m-q	78.46 c-f	5.70 e-h	1.19 k-q	1.98 b-d
N09042oIF	5.79 i-l	2.12 pq	80.57 ab	4.54 f-h	1.13 q	1.92 d-g
N10043oIJ	5.87 g-l	3.03 b	79.11 a-e	4.26 gh	1.44 bc	1.93 c-e
N10046ol	5.93 g-l	2.49 f-j	78.50 b-f	5.69 e-h	1.29 e-g	1.91 d-h
N10047ol	5.90 g-l	2.33 i-o	78.55 b-e	6.14 d-f	1.22 h-m	1.84 d-h
N10051ol	5.79 i-l	2.30 j-p	80.43 a-d	4.87 e-h	1.13 q	1.85 d-h
N10053ol	5.94 g-l	2.67 d-f	78.55 b-e	4.76 e-h	1.38 cd	2.10 b
N10061oIFCLSm	5.80 h-l	2.30 j-p	79.27 a-e	4.87 e-h	1.22 h-m	2.06 bc
N10066oISmT	6.22 fg	2.40 h-m	79.28 a-e	5.07 e-h	1.18 l-q	1.88 d-h
N10070oICLSmT	6.15 f-h	2.40 h-m	78.52 b-e	5.36 e-h	1.22 h-m	1.95 c-e
N10078oIJC	5.59 lm	2.22 m-q	79.58 a-e	5.37 e-h	1.18 l-q	1.97 b-d
N10080oIJCL	5.42 m	2.37 h-n	80.56 a-c	4.41 f-h	1.23 g-m	1.92 c-f
N10082oIJC	5.64 lm	2.54 f-h	80.82 a	4.11 h	1.26 f-j	1.78 f-j
N11019oIJ	10.00 a	2.27 l-p	49.60 lm	31.30 a	1.22 h-m	1.28 o
N11020oIJ	6.00 f-k	2.34 h-o	78.70 b-e	5.55 e-h	1.24 g-l	1.95 c-e
N11024ol	5.68 j-m	3.01 b	80.48 a-d	3.91 h	1.48 b	1.55 lm
N11028ol	5.88 g-l	2.87 b-d	80.31 a-d	3.91 h	1.44 bc	1.66 j-l
N11034ol	5.66 k-m	2.32 j-p	80.13 a-d	4.81 e-h	1.22 i-o	1.89 d-h
N11039oIFSr	5.90 g-l	2.17 n-q	78.45 d-f	6.55 c-e	1.17 m-q	1.92 c-f
N11048ol	6.30 f	2.23 m-q	79.33 a-e	5.49 e-h	1.14 pq	1.86 d-h
N11051oIJ	5.81 h-l	2.43 g-l	80.44 a-d	4.49 f-h	1.20 j-o	1.83 e-i
SPT 10-05	7.52 e	2.35 h-n	73.96 i	8.11 c	1.28 e-i	2.06 bc
SPT 10-12ol	6.33 f	2.77 c-e	76.41 f-h	5.66 e-h	1.44 bc	2.26 a
SPT 10-14ol	5.82 h-l	2.38 h-m	79.38 a-e	4.82 e-h	1.18 l-q	2.27 a
Mean	6.67	2.48	73.39	10.06	1.28	1.82
LSD_{0.05}²	0.35	0.20	2.11	1.82	0.07	0.14

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 20. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 1, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.96 e-h	1.52 c-i	93.89 b	2.05 k	17.68 b	1.51 b	5.92 e-i
CHAMPS	3.15 c-e	1.64 b-d	94.69 b	1.85 k	18.35 a	1.54 b	6.21 b-e
Phillips	3.04 d-g	1.58 c-g	97.02 a	1.64 k	18.09 ab	1.69 a	5.94 d-h
Bailey	3.09 de	1.61 b-e	97.77 a	1.58 k	17.88 ab	1.75 a	5.98 c-g
Sugg	3.06 d-f	1.49 c-j	97.09 a	1.68 k	17.62 b	1.72 a	5.84 e-j
Florida 07	3.24 b-d	1.90 a	76.70 l	17.25 a-f	15.22 ef	0.30 h-j	6.43 a-c
Sullivan	2.63 i-l	1.57 c-g	78.42 e-i	16.31 b-h	13.65 k-n	0.36 f-j	5.46 i-q
Wynne	2.56 j-l	1.41 e-k	78.80 d-g	14.89 d-h	13.67 j-n	0.39 e-i	5.21 m-s
N08082oIJCT	2.73 h-k	1.48 c-j	80.14 cd	10.98 ij	14.48 g-i	0.53 c	5.55 f-n
Spain	3.58 a	1.40 f-k	76.84 kl	13.06 g-j	16.53 c	0.36 f-j	6.69 a
N09037ol	2.58 j-l	1.51 c-i	79.20 c-f	14.72 d-i	13.23 n-q	0.41 c-h	5.24 m-s
N09039oIF	2.73 h-k	1.60 c-f	78.91 c-f	13.92 f-i	13.87 j-l	0.41 c-h	5.51 g-o
N09042oIF	2.43 lm	1.52 c-i	78.66 e-h	17.78 a-e	12.98 pq	0.35 f-j	5.07 o-s
N10043oIJ	2.83 f-i	1.55 c-h	76.93 j-l	18.71 a-c	14.71 fg	0.29 ij	5.81 e-k
N10046ol	2.72 h-k	1.48 c-j	78.87 d-g	13.81 f-i	13.91 j-l	0.41 c-h	5.49 h-p
N10047ol	2.57 j-l	1.47 c-j	79.63 c-e	12.81 h-j	13.48 l-p	0.46 c-f	5.26 l-r
N10051ol	2.30 m	1.35 h-k	79.06 c-f	16.55 b-h	12.86 q	0.38 f-j	4.78 s
N10053ol	2.94 e-h	1.67 bc	77.45 g-l	16.67 b-g	14.60 gh	0.33 g-j	5.99 c-f
N10061oIFCLSm	2.83 f-i	1.66 b-d	78.23 e-k	16.33 b-h	13.81 j-m	0.36 f-j	5.71 f-l
N10066oISmT	2.53 k-m	1.46 d-k	78.44 e-i	15.68 c-h	13.78 j-m	0.37 f-j	5.16 m-s
N10070oICLSmT	2.80 g-j	1.61 c-e	78.35 e-j	14.66 d-i	14.17 h-j	0.38 f-j	5.63 f-m
N10078oIJC	2.65 i-l	1.46 d-k	79.29 c-f	14.94 c-h	13.09 o-q	0.41 c-h	5.28 l-q
N10080oIJCL	2.64 i-l	1.47 c-j	78.43 e-i	18.38 a-d	13.12 o-q	0.34 g-j	5.34 l-q
N10082oIJC	2.46 lm	1.40 f-k	78.04 f-l	19.73 ab	13.29 m-q	0.31 g-j	5.12 n-s
N11019oIJ	2.96 e-h	1.39 g-k	97.87 a	1.59 k	17.83 b	1.76 a	5.56 f-n
N11020oIJ	2.72 h-k	1.50 c-j	78.85 d-g	14.20 e-i	13.80 j-m	0.40 d-i	5.45 j-q
N11024ol	2.63 i-l	1.30 jk	77.20 i-l	20.62 a	14.07 i-k	0.28 j	5.39 j-q
N11028ol	2.62 i-l	1.32 i-k	77.14 i-l	20.73 a	14.13 h-k	0.28 j	5.38 j-q
N11034ol	2.56 j-l	1.42 e-k	78.73 d-g	16.69 b-g	13.18 n-q	0.37 f-j	5.20 m-s
N11039oIFSr	2.55 kl	1.31 i-k	80.33 c	12.90 g-j	13.08 o-q	0.50 c-e	5.02 p-s
N11048ol	2.42 lm	1.25 k	79.20 c-f	14.47 e-i	13.32 m-q	0.42 c-g	4.80 rs
N11051oIJ	2.41 lm	1.41 e-k	78.40 e-i	17.91 a-e	13.24 n-q	0.34 f-j	5.01 q-s
SPT 10-05	3.37 a-c	1.37 g-k	79.26 c-f	9.32 j	15.89 d	0.51 cd	6.01 c-f
SPT 10-12ol	3.57 a	1.57 c-g	77.29 h-l	13.87 f-i	15.68 de	0.37 f-j	6.58 ab
SPT 10-14ol	2.62 i-l	1.55 c-h	78.40 e-i	16.53 b-h	13.54 l-o	0.36 f-j	5.35 k-q
Mean	2.80	1.50	81.98	12.95	14.73	0.63	5.57
LSD_{0.05}²	0.24	0.21	1.44	3.81	0.52	0.12	0.47

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 21. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 2, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	9.34 b	2.68 c-e	52.01 g	28.99 b	1.35 cd	1.38 rs
CHAMPS	9.66 ab	2.48 d-h	50.34 gh	30.08 ab	1.30 c-f	1.54 p-s
Phillips	9.67 ab	2.54 d-g	50.75 gh	30.29 ab	1.26 d-i	1.34 s
Bailey	9.56 ab	2.27 f-j	49.50 gh	31.49 a	1.25 e-j	1.49 q-s
Sugg	9.40 ab	2.26 f-j	50.67 gh	30.88 ab	1.24 e-k	1.36 rs
Florida 07	6.58 d	2.39 e-i	75.92 d-f	6.49 c-e	1.24 e-j	2.36 ab
Sullivan	5.84 g-l	2.26 f-j	79.32 a-c	5.35 d-g	1.17 i-n	2.05 c-h
Wynne	5.92 f-l	2.56 d-f	79.78 a-c	4.80 e-g	1.26 e-i	1.83 i-m
N08082oIJCT	6.37 de	2.60 c-f	76.02 d-f	8.23 c	1.27 d-h	1.71 l-p
Spain	6.36 de	4.04 a	74.64 f	7.27 cd	1.70 a	1.56 o-r
N09037ol	5.87 f-l	2.13 h-j	78.93 a-c	5.71 d-g	1.14 l-o	2.11 c-e
N09039oIF	6.06 e-h	2.11 h-j	78.95 a-c	5.78 d-g	1.14 l-o	2.06 c-g
N09042oIF	5.94 e-l	2.16 g-j	80.24 ab	4.81 e-g	1.11 no	1.97 d-j
N10043oIJ	5.74 g-l	2.98 bc	79.96 ab	4.15 fg	1.37 c	1.91 e-k
N10046ol	5.86 g-l	2.60 c-f	79.43 a-c	5.28 d-g	1.26 d-i	1.86 g-m
N10047ol	5.88 f-l	2.64 c-f	79.29 a-c	5.25 d-g	1.28 c-g	1.82 i-m
N10051ol	5.95 e-k	2.43 e-i	80.05 ab	4.95 e-g	1.16 j-n	1.81 i-n
N10053ol	6.00 e-i	2.57 d-f	78.40 a-d	5.32 d-g	1.31 c-e	2.08 c-f
N10061oIFCLSm	5.96 e-k	2.30 f-j	80.22 ab	4.77 e-g	1.13 m-o	2.00 d-i
N10066oISmT	6.04 e-h	2.46 e-h	80.43 ab	4.76 e-g	1.14 l-o	1.77 j-o
N10070oICLSmT	6.03 e-h	2.51 d-g	79.05 a-c	5.06 e-g	1.22 e-l	1.95 d-j
N10078oIJC	5.56 j-l	2.46 e-h	80.94 a	4.39 fg	1.18 i-n	1.84 h-m
N10080oIJCL	5.57 i-l	2.28 f-j	81.06 a	4.39 fg	1.14 l-o	1.88 f-l
N10082oIJC	5.68 h-l	2.40 e-i	80.97 a	4.34 fg	1.19 h-n	1.79 i-n
N11019oIJ	9.78 a	2.27 f-j	50.43 gh	30.86 ab	1.20 g-n	1.33 s
N11020oIJ	5.84 g-l	2.30 f-j	79.28 a-c	5.20 d-g	1.21 f-m	2.06 c-g
N11024ol	5.90 f-l	3.20 b	79.86 ab	4.22 fg	1.47 b	1.60 n-q
N11028ol	5.98 e-j	3.07 b	80.06 ab	3.94 g	1.47 b	1.65 m-q
N11034ol	5.51 l	2.52 d-g	80.82 a	4.30 fg	1.25 e-j	1.84 h-m
N11039oIFSr	5.53 kl	2.11 h-j	79.78 a-c	5.57 d-g	1.14 l-o	1.98 d-j
N11048ol	6.12 e-g	1.96 j	79.26 a-c	5.63 d-g	1.07 o	2.05 c-h
N11051oIJ	5.90 f-l	2.33 e-j	79.74 a-c	5.12 e-g	1.16 j-n	1.95 d-j
SPT 10-05	7.29 c	2.31 e-j	77.14 c-f	5.29 d-g	1.24 e-k	2.14 cd
SPT 10-12ol	6.30 d-f	2.84 b-d	75.69 ef	5.56 d-g	1.48 b	2.47 a
SPT 10-14ol	5.92 f-l	2.42 e-i	77.76 b-e	6.09 d-f	1.22 e-m	2.25 bc
Mean	6.68	2.48	73.49	10.16	1.24	1.84
LSD_{0.05}²	0.44	0.38	2.69	2.09	0.09	0.21

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 21. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 2, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.83 d-g	1.44 d-i	96.04 c	1.80 j	17.62 ab	1.65 c	5.61 c-h
CHAMPS	3.07 b-e	1.55 c-g	96.59 bc	1.68 j	18.06 a	1.67 bc	5.92 b-d
Phillips	2.74 e-h	1.42 d-i	97.17 a-c	1.68 j	17.62 ab	1.72 a-c	5.42 d-j
Bailey	2.92 c-f	1.54 c-g	98.28 a	1.57 j	17.53 ab	1.80 a	5.70 b-f
Sugg	2.80 d-g	1.40 e-i	98.14 ab	1.65 j	17.09 bc	1.81 a	5.44 d-i
Florida 07	3.15 b-d	1.87 a	78.39 e-j	12.31 g-i	15.24 e	0.43 e	6.27 b
Sullivan	2.52 g-k	1.52 d-g	79.08 ef	14.90 c-h	13.30 i-n	0.41 ef	5.21 e-j
Wynne	2.48 g-k	1.39 e-i	78.37 e-j	16.89 a-g	13.59 g-l	0.36 e-g	5.12 f-k
N08082oIJCT	2.46 g-k	1.36 e-i	80.98 d	9.61 i	14.05 f-h	0.59 d	5.08 f-k
Spain	3.20 bc	1.25 hi	78.01 f-k	10.38 hi	16.54 cd	0.45 e	6.14 bc
N09037ol	2.59 f-j	1.55 c-g	79.43 d-f	13.85 e-i	13.26 i-n	0.43 e	5.27 d-j
N09039oIF	2.59 f-j	1.53 c-g	79.17 ef	14.19 d-i	13.42 h-n	0.42 e	5.25 e-j
N09042oIF	2.35 i-k	1.44 d-i	78.89 e-g	16.75 a-g	12.99 l-n	0.37 e-g	4.89 i-k
N10043oIJ	2.49 g-k	1.43 d-i	77.46 f-k	19.56 ab	13.99 f-i	0.30 fg	5.29 d-j
N10046ol	2.42 h-k	1.30 g-i	78.91 e-g	15.25 b-g	13.44 h-m	0.40 ef	4.99 h-k
N10047ol	2.46 g-k	1.40 e-i	78.72 e-i	15.10 b-g	13.64 f-l	0.39 e-g	5.14 f-k
N10051ol	2.28 jk	1.38 e-i	78.85 e-g	16.18 a-g	13.20 k-n	0.38 e-g	4.81 i-k
N10053ol	2.74 e-h	1.61 b-e	78.27 e-j	15.64 b-g	14.22 fg	0.37 e-g	5.64 b-g
N10061oIFCLSm	2.34 i-k	1.31 g-i	78.82 e-g	16.83 a-g	13.02 l-n	0.37 e-g	4.77 jk
N10066oISmT	2.19 k	1.24 i	78.81 e-g	17.35 a-f	13.04 l-n	0.36 e-g	4.55 k
N10070oICLSmT	2.62 f-j	1.57 c-f	78.29 e-j	15.70 b-g	13.94 f-i	0.37 e-g	5.40 d-j
N10078oIJC	2.32 i-k	1.33 f-i	78.66 e-i	18.46 a-e	12.84 mn	0.35 e-g	4.83 i-k
N10080oIJCL	2.32 jk	1.39 e-i	78.79 e-h	18.54 a-d	12.68 n	0.35 e-g	4.84 i-k
N10082oIJC	2.31 jk	1.34 f-i	78.55 e-i	18.69 a-d	12.92 l-n	0.34 e-g	4.84 i-k
N11019oIJ	2.80 d-g	1.36 e-i	97.87 ab	1.64 j	17.39 ab	1.78 ab	5.35 d-j
N11020oIJ	2.64 f-j	1.50 d-h	78.80 e-g	15.26 b-g	13.48 h-m	0.39 e-g	5.35 d-j
N11024ol	2.55 f-k	1.22 i	77.24 h-k	19.02 a-c	14.33 f	0.29 fg	5.24 e-j
N11028ol	2.54 g-k	1.31 g-i	76.97 jk	20.35 a	14.36 f	0.28 g	5.31 d-j
N11034ol	2.41 h-k	1.37 e-i	78.40 e-j	18.84 a-c	13.05 l-n	0.33 e-g	5.03 g-k
N11039oIFSr	2.47 g-k	1.43 d-i	79.81 de	15.19 b-g	12.68 n	0.44 e	5.04 g-k
N11048ol	2.51 g-k	1.42 e-i	79.52 d-f	14.10 d-i	13.08 l-n	0.43 e	4.99 g-k
N11051oIJ	2.39 h-k	1.44 d-i	78.97 e-g	15.63 b-g	13.21 j-n	0.39 e-g	4.98 h-k
SPT 10-05	3.22 bc	1.40 e-i	77.18 i-k	15.33 b-g	15.44 e	0.34 e-g	5.86 b-e
SPT 10-12ol	3.84 a	1.83 ab	76.66 k	14.07 d-i	16.29 d	0.34 e-g	7.15 a
SPT 10-14ol	2.69 f-i	1.68 a-d	79.19 ef	12.77 f-i	13.91 f-k	0.44 e	5.58 c-h
Mean	2.65	1.45	82.24	13.01	14.51	0.64	5.35
LSD_{0.05}²	0.37	0.26	1.55	4.62	0.74	0.12	0.65

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 22. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Averages of all Digs from Tidewater AREC (Suffolk), VA , 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	9.10 c	2.79 de	53.19 i	27.79 c	1.40 cd	1.36 rs
CHAMPS	9.52 b	2.62 ef	51.19 j	29.12 b	1.36 de	1.49 pq
Phillips	9.64 ab	2.53 f-h	50.37 jk	30.43 ab	1.29 f-h	1.35 s
Bailey	9.60 b	2.27 j-m	49.46 kl	31.37 a	1.26 g-j	1.48 p-r
Sugg	9.42 b	2.30 i-m	50.71 jk	30.54 a	1.26 g-j	1.39 q-s
Florida 07	6.46 e	2.42 f-j	76.94 fg	5.51 e-h	1.26 g-j	2.33 a
Sullivan	5.78 j-l	2.36 g-k	79.41 a-e	5.13 f-j	1.22 i-l	2.00 b-g
Wynne	5.97 g-j	2.50 f-i	79.49 a-e	5.08 f-j	1.25 g-j	1.81 k-m
N08082oIJCT	6.35 ef	2.61 ef	76.04 gh	7.96 d	1.30 e-g	1.74 mn
Spain	6.22 e-g	3.90 a	75.24 h	6.60 e	1.71 a	1.63 no
N09037ol	5.86 i-k	2.14 l-n	79.17 b-e	5.56 e-g	1.15 m-o	3.04 bc
N09039olF	6.10 f-i	2.16 k-n	78.71 c-e	5.64 e-g	1.16 l-o	2.02 b-e
N09042olF	5.87 h-k	2.14 l-n	80.40 ab	4.68 g-j	1.12 no	1.94 c-j
N10043olJ	5.80 j-l	3.00 bc	79.53 a-e	4.20 h-j	1.40 cd	1.92 c-k
N10046ol	5.89 h-k	2.54 fg	78.96 b-e	5.49 e-h	1.28 g-i	1.88 g-l
N10047ol	5.89 h-k	2.48 f-i	78.92 b-e	5.69 e-g	1.25 g-j	1.83 i-m
N10051ol	5.87 h-k	2.37 g-k	80.24 a-c	4.91 f-j	1.15 m-o	1.83 j-m
N10053ol	5.97 g-j	2.62 ef	78.47 ef	5.04 f-j	1.34 d-f	2.09 b
N10061olFCLSm	5.88 h-k	2.30 i-m	79.75 a-e	4.82 f-j	1.17 k-n	2.03 b-d
N10066olSmT	6.13 f-h	2.43 f-j	79.85 a-e	4.91 f-j	1.16 l-o	1.83 j-m
N10070olCLSmT	6.09 f-i	2.45 f-j	78.78 c-e	5.21 f-j	1.22 i-l	1.95 c-i
N10078olJJC	5.57 lm	2.34 g-l	80.26 a-c	4.88 f-j	1.18 k-n	1.91 d-k
N10080olJCL	5.50 m	2.32 i-l	80.81 a	4.40 g-j	1.18 k-n	1.90 e-l
N10082olJJC	5.66 k-m	2.47 f-j	80.90 a	4.22 h-j	1.22 i-l	1.78 lm
N11019olJ	9.89 a	2.27 j-m	50.02 j-l	31.08 a	1.21 j-m	1.30 s
N11020olJ	5.92 h-k	2.32 i-l	78.99 b-e	5.37 e-i	1.22 i-l	2.00 b-f
N11024ol	5.79 j-l	3.10 b	80.17 a-d	4.06 ij	1.47 b	1.58 op
N11028ol	5.93 h-j	2.97 b-d	80.18 a-c	3.92 j	1.45 bc	1.66 no
N11034ol	5.59 lm	2.42 f-j	80.48 ab	4.55 g-j	1.23 h-k	1.87 h-l
N11039olFSr	5.71 j-m	2.14 l-n	79.11 b-e	6.06 ef	1.15 m-o	1.95 c-i
N11048ol	6.21 e-g	2.09 mn	79.30 a-e	5.56 e-g	1.10 o	1.95 c-h
N11051olJ	5.85 i-k	2.38 g-j	80.09 a-d	4.80 f-j	1.48 k-n	1.89 f-l
SPT 10-05	7.40 d	2.33 h-l	75.55 gh	6.70 de	1.26 g-j	2.10 b
SPT 10-12ol	6.31 ef	2.81 c-e	76.05 gh	5.61 e-g	1.46 bc	2.36 a
SPT 10-14ol	5.87 h-k	2.40 g-j	78.57 de	5.46 e-h	1.20 j-m	2.26 a
Mean	6.68	2.48	73.44	10.11	1.26	1.83
LSD_{0.05}²	0.26	0.21	1.61	1.33	0.06	0.12

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 22. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of all Digs from Tidewater AREC (Suffolk), VA, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.89 e-h	1.48 d-m	94.97 b	1.92 k	17.65 bc	1.58 b	5.76 d-h
CHAMPS	3.11 c-e	1.60 c-e	95.64 b	1.76 k	18.20 a	1.60 b	6.06 b-d
Phillips	2.89 e-h	1.50 d-j	97.09 a	1.66 k	17.85 ab	1.71 a	5.68 d-i
Bailey	3.01 d-f	1.58 c-g	98.02 a	1.58 k	17.71 bc	1.77 a	5.84 d-f
Sugg	2.93 e-g	1.45 e-m	97.62 a	1.66 k	17.35 c	1.76 a	5.64 d-j
Florida 07	3.20 b-d	1.89 a	77.54 h-l	14.78 f-h	15.23 f	0.36 e-i	6.35 bc
Sullivan	2.57 ij	1.54 c-h	78.75 e-g	15.60 e-g	13.47 i-m	0.38 e-g	5.33 h-o
Wynne	2.52 i-k	1.40 h-n	78.59 e-h	15.89 d-g	13.63 h-k	0.37 e-h	5.16 k-r
N08082oIJCT	2.59 ij	1.42 g-m	80.56 c	10.29 j	14.26 g	0.56 c	5.14 i-p
Spain	3.39 b	1.32 l-n	77.43 i-l	11.72 ij	16.53 d	0.40 d-g	6.41 b
N09037ol	2.59 ij	1.53 d-i	79.31 de	14.28 g-i	13.24 j-o	0.42 d-f	5.25 i-q
N09039olF	2.66 hi	1.56 c-g	79.04 d-f	14.05 g-i	13.64 h-k	0.41 d-f	5.38 h-o
N09042olF	2.39 jk	1.48 d-l	78.77 e-g	17.27 b-f	12.99 no	0.36 e-i	4.98 o-r
N10043olJ	2.66 hi	1.49 d-k	77.19 kl	19.13 a-c	14.35 g	0.29 h-j	5.55 e-k
N10046ol	2.57 ij	1.39 h-n	78.89 e-g	14.53 f-i	13.67 h-j	0.40 d-g	5.24 j-q
N10047ol	2.51 i-k	1.43 f-m	79.17 d-f	13.96 g-i	13.56 i-l	0.42 d-f	5.20 k-r
N10051ol	2.29 k	1.37 i-n	78.95 ef	16.36 c-g	13.03 m-o	0.38 e-g	4.80 r
N10053ol	2.84 f-h	1.64 b-d	77.86 g-l	16.15 d-g	14.41 g	0.35 e-j	5.82 d-g
N10061olFCLSm	2.59 ij	1.48 d-l	78.52 e-h	16.58 c-g	13.41 i-n	0.36 e-i	5.24 j-q
N10066olSmT	2.36 jk	1.35 j-n	78.63 e-g	16.51 c-g	13.41 i-n	0.37 e-i	4.86 qr
N10070olCLSmT	2.71 g-i	1.59 c-f	78.32 e-i	15.18 e-g	14.06 gh	0.37 e-h	5.51 e-l
N10078olJC	2.48 i-k	1.39 h-n	78.97 ef	16.70 c-g	12.96 no	0.38 e-g	5.05 m-r
N10080olJCL	2.48 i-k	1.43 f-m	78.61 e-h	18.46 a-d	12.90 o	0.34 f-j	5.09 l-r
N10082olJC	2.39 jk	1.37 i-n	78.29 e-j	19.21 a-c	13.10 l-o	0.32 g-j	4.98 o-r
N11019olJ	2.88 e-h	1.37 i-n	97.88 a	1.61 k	17.61 bc	1.77 a	5.45 f-n
N11020olJ	2.68 hi	1.50 d-j	78.82 e-g	14.73 f-h	13.64 h-k	0.39 d-g	5.40 g-o
N11024ol	2.59 ij	1.26 n	77.22 j-l	19.82 ab	14.20 g	0.29 ij	5.31 i-p
N11028ol	2.58 ij	1.31 mn	77.05 l	20.54 a	14.25 g	0.28 j	5.35 h-o
N11034ol	2.48 i-k	1.40 h-n	78.56 e-h	17.76 a-e	13.11 l-o	0.35 e-j	5.11 l-r
N11039olFSr	2.51 i-k	1.37 i-n	80.07 cd	14.04 g-i	12.88 o	0.47 d	5.03 n-r
N11048ol	2.46 i-k	1.33 k-n	79.36 de	14.28 g-i	13.20 k-o	0.42 d-f	4.90 p-r
N11051olJ	2.40 jk	1.43 f-m	78.68 e-g	16.77 c-g	13.23 j-o	0.37 e-i	5.00 o-r
SPT 10-05	3.29 bc	1.39 h-n	78.22 f-k	12.32 h-j	15.66 ef	0.43 de	5.93 c-e
SPT 10-12ol	3.70 a	1.70 bc	76.97 l	13.97 g-i	15.99 e	0.35 e-j	6.87 a
SPT 10-14ol	2.66 hi	1.61 cd	78.80 e-g	14.65 f-h	13.72 hi	0.40 d-g	5.46 f-m
Mean	2.73	1.47	82.11	12.98	14.62	0.64	5.46
LSD_{0.05}²	0.24	0.16	1.07	2.85	0.47	0.08	0.43

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 23. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 1, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	9.52 c	2.71 b	53.09 k	28.10 b	1.33 b-e	1.35 n
CHAMPS	9.93 bc	2.55 bc	51.79 k	28.81 b	1.30 c-f	1.43 n
Phillips	10.12 ab	2.37 d-g	49.41 lm	31.26 a	1.23 f-k	1.40 n
Bailey	10.07 ab	2.34 d-h	49.83 l	30.91 a	1.24 f-k	1.39 n
Sugg	9.87 bc	2.24 e-l	49.65 l	31.26 a	1.24 f-k	1.40 n
Florida 07	6.77 d-f	2.34 d-h	75.76 i	6.71 d-g	1.22 g-m	2.25 ab
Sullivan	5.78 jk	2.25 e-k	79.43 a-e	4.94 h-j	1.22 g-m	2.05 c-h
Wynne	5.96 h-k	2.28 d-j	79.49 a-e	5.08 f-j	1.23 g-l	1.89 i-l
N08082oIJCT	6.34 f-h	2.27 d-j	76.18 hi	7.87 cd	1.25 f-i	1.87 j-l
Spain	6.83 de	3.14 a	72.48 j	8.89 c	1.60 a	1.81 k-m
N09037ol	5.96 h-k	2.10 k-p	78.68 b-f	6.03 e-i	1.15 m-o	1.97 e-j
N09039oIF	6.08 h-k	2.12 j-p	79.29 a-e	5.15 f-j	1.17 k-o	1.98 d-j
N09042oIF	5.84 jk	2.01 p	80.62 a	4.51 ij	1.10 o	1.99 d-j
N10043oIJ	5.87 i-k	2.61 b	79.22 a-e	4.68 ij	1.37 bc	2.14 a-d
N10046ol	5.97 h-k	2.40 c-e	78.88 a-f	5.52 e-j	1.26 e-h	1.92 g-k
N10047ol	6.06 h-k	2.19 h-n	78.47 c-g	5.92 e-i	1.20 h-n	1.97 e-j
N10051ol	6.04 h-k	2.18 h-o	79.55 a-e	5.15 f-j	1.15 m-o	1.94 f-k
N10053ol	6.06 h-k	2.39 c-f	78.65 b-f	5.04 g-j	1.29 d-g	2.11 a-e
N10061oIFCLSm	6.01 h-k	2.04 n-p	78.88 a-f	5.42 e-j	1.14 no	2.09 b-f
N10066oISmT	6.18 g-j	2.24 e-l	78.94 a-f	5.12 f-j	1.18 i-n	1.99 d-j
N10070oICLSmT	6.55 e-g	2.16 i-p	76.76 g-i	6.89 de	1.16 l-o	2.04 c-i
N10078oIJC	5.98 h-k	2.08 l-p	78.45 d-g	5.87 e-i	1.15 m-o	2.09 c-f
N10080oIJCL	6.05 h-k	2.07 m-p	78.51 c-g	5.91 e-i	1.14 no	2.07 c-g
N10082oIJC	6.00 h-k	2.20 g-n	78.70 b-f	5.90 e-i	1.20 h-n	1.90 h-l
N11019oIJ	10.37 a	2.12 j-p	47.99 lm	32.42 a	1.19 h-n	1.36 n
N11020oIJ	6.00 h-k	2.30 d-i	78.53 c-g	5.68 e-i	1.24 f-j	1.97 e-j
N11024ol	6.18 g-j	2.60 b	77.27 f-i	6.49 d-h	1.39 b	1.75 lm
N11028ol	6.01 h-k	2.63 b	80.51 ab	3.96 j	1.36 b-d	1.69 m
N11034ol	5.74 k	2.22 f-m	80.32 a-c	4.78 ij	1.18 i-n	1.88 j-l
N11039oIFSr	5.92 h-k	2.10 k-p	77.83 e-h	6.72 d-f	1.18 i-n	1.99 d-j
N11048ol	6.03 h-k	2.16 i-p	79.92 a-d	4.84 h-j	1.17 k-o	1.89 i-l
N11051oIJ	6.06 h-k	2.28 d-j	79.10 a-f	5.54 e-j	1.19 h-n	1.90 h-l
SPT 10-05	7.04 d	2.43 cd	76.39 hi	5.68 e-i	1.33 b-e	2.04 c-i
SPT 10-12ol	6.27 g-i	2.66 b	76.44 hi	5.56 e-j	1.39 b	2.27 a
SPT 10-14ol	5.92 h-k	2.23 f-m	79.33 a-e	4.81 h-j	1.17 j-n	2.18 a-c
Mean	6.88	2.30	72.83	10.54	1.23	1.88
LSD_{0.05}²	0.43	0.17	1.86	1.68	0.07	0.16

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 23. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 1, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.69 d-i	1.24 fg	95.39 b	1.89 j	17.47 d	1.61 bc	5.25 e-g
CHAMPS	2.82 c-h	1.39 d-g	95.58 b	1.80 j	17.97 bc	1.61 c	5.51 e-g
Phillips	2.87 c-f	1.36 d-g	97.74 a	1.58 j	17.94 bc	1.74 a	5.46 e-g
Bailey	2.83 c-g	1.42 d-g	97.48 a	1.61 j	17.88 b-d	1.73 a	5.48 e-g
Sugg	2.96 cd	1.40 d-g	97.93 a	1.59 j	17.71 cd	1.77 a	5.60 d-g
Florida 07	3.14 c	1.83 a	78.55 e-i	11.69 g-i	15.28 g	0.44 e-i	6.18 b-d
Sullivan	2.73 d-i	1.61 a-e	78.48 e-j	16.14 b-d	13.59 l-p	0.37 h-j	5.56 d-g
Wynne	2.68 d-i	1.42 d-g	78.65 e-h	15.72 b-e	13.55 l-p	0.38 g-j	5.31 e-g
N08082oIJCT	2.77 d-i	1.47 b-g	80.61 c	9.76 hi	14.09 h-k	0.56 d	5.48 e-g
Spain	3.85 a	1.42 d-g	79.15 d-g	8.16 i	16.84 e	0.53 de	6.86 a
N09037oI	2.62 e-i	1.51 b-f	79.67 c-e	13.21 d-h	13.33 p-r	0.45 d-h	5.28 e-g
N09039oIF	2.67 d-i	1.56 a-e	78.67 e-h	15.42 b-f	13.58 l-p	0.38 g-j	5.40 e-g
N09042oIF	2.45 i	1.51 b-f	78.71 e-h	17.89 ab	12.90 r	0.35 h-j	5.06 g
N10043oIJ	2.96 cd	1.18 g	77.92 g-j	17.02 a-c	13.97 i-l	0.34 ij	5.50 e-g
N10046oI	2.70 d-i	1.46 c-g	78.82 d-g	14.38 b-g	13.79 j-p	0.40 f-i	5.42 e-g
N10047oI	2.72 d-i	1.49 d-g	79.30 c-g	13.60 c-g	13.65 k-p	0.44 e-i	5.41 e-g
N10051oI	2.52 g-i	1.48 b-f	78.86 d-g	15.46 b-e	13.37 o-q	0.39 g-j	5.15 e-g
N10053oI	2.87 c-f	1.62 a-d	78.03 f-j	15.71 b-e	14.21 h-j	0.36 h-j	5.77 c-e
N10061oIFCLSm	2.83 c-g	1.60 a-e	78.87 d-g	14.58 b-g	13.62 l-p	0.40 f-i	5.57 d-g
N10066oISmT	2.76 d-i	1.61 a-e	78.33 e-j	15.46 b-e	13.96 i-m	0.37 h-j	5.55 d-g
N10070oICLSmT	2.86 c-f	1.61 a-e	79.55 c-e	11.18 g-i	14.32 hi	0.48 d-g	5.62 d-g
N10078oIJC	2.85 c-f	1.55 a-e	79.28 c-g	13.41 d-g	13.60 l-p	0.43 e-i	5.55 d-g
N10080oIJCL	2.78 d-h	1.49 b-f	79.38 c-f	13.59 c-g	13.52 l-p	0.44 e-i	5.40 e-g
N10082oIJC	2.65 d-i	1.47 c-g	79.40 c-f	13.44 c-g	13.50 m-p	0.44 e-i	5.31 e-g
N11019oIJ	3.13 c	1.42 d-g	98.49 a	1.48 j	18.24 ab	1.78 a	5.74 d-f
N11020oIJ	2.78 d-h	1.51 b-f	78.93 d-g	14.01 c-g	13.83 j-o	0.41 f-i	5.53 e-g
N11024oI	2.92 c-e	1.41 d-g	79.07 d-g	12.36 e-h	14.49 h	0.45 e-i	5.71 d-f
N11028oI	2.57 f-i	1.31 e-g	77.42 h-j	20.41 a	13.86 i-n	0.29 j	5.23 e-g
N11034oI	2.50 hi	1.39 d-g	78.84 d-g	16.80 b-d	13.02 qr	0.37 h-j	5.07 g
N11039oIFSr	2.77 d-i	1.50 b-f	80.14 cd	11.82 f-h	13.47 n-q	0.50 d-f	5.45 e-g
N11048oI	2.59 f-i	1.42 d-g	78.61 e-h	16.54 b-d	13.35 p-r	0.36 h-j	5.17 e-g
N11051oIJ	2.51 g-i	1.45 c-g	79.11 d-g	14.54 b-g	13.48 n-q	0.41 f-i	5.14 fg
SPT 10-05	3.53 ab	1.58 a-e	77.15 j	13.46 c-g	15.89 f	0.36 h-j	6.43 ab
SPT 10-12oI	3.68 ab	1.75 a-c	77.15 ij	14.51 b-g	15.74 fg	0.35 h-j	6.81 a
SPT 10-14oI	2.74 d-i	1.64 a-d	78.27 e-j	16.51 b-d	13.68 k-p	0.36 h-j	5.55 d-g
Mean	2.85	1.49	82.37	11.89	14.76	0.66	5.57
LSD_{0.05}²	0.32	0.30	1.40	3.61	0.46	0.11	0.63

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.³ Lower iodine value indicates longer shelf life.⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 24. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 2, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	8.84 d	2.58 b	53.57 i	27.95 c	1.35 b	1.45 rs
CHAMPS	9.46 a-c	2.56 b	51.15 ij	29.49 bc	1.35 b	1.50 qr
Phillips	9.25 c	2.41 c	51.32 ij	29.79 bc	1.29 c-e	1.48 qr
Bailey	9.44 bc	2.26 d-j	50.63 jk	30.63 ab	1.25 ef	1.47 q-s
Sugg	9.40 bc	2.26 d-j	50.62 jk	30.79 ab	1.22 fg	1.47 q-s
Florida 07	6.44 e-g	2.28 c-h	77.24 e-h	6.05 e-g	1.17 g-k	2.24 a
Sullivan	5.77 j-q	2.14 h-m	78.83 a-f	6.14 ef	1.15 h-m	1.99 c-h
Wynne	6.36 e-h	2.32 c-e	75.31 h	9.05 d	1.22 fg	1.82 k-n
N08082oIJCT	6.48 ef	2.17 f-m	76.01 gh	9.05 d	1.10 mn	1.80 l-n
Spain	6.08 g-k	3.57 a	77.34 d-h	5.38 e-g	1.61 a	1.63 op
N09037ol	5.79 i-p	2.13 i-m	79.25 a-f	6.02 e-g	1.13 j-n	1.88 g-l
N09039oIF	5.80 i-p	2.14 g-m	80.48 a-c	4.56 e-g	1.14 i-n	1.95 d-j
N09042oIF	5.91 i-m	2.06 m	78.81 a-f	6.35 e	1.09 n	1.96 d-i
N10043oIJ	5.54 n-q	2.56 b	80.53 a-c	3.91 g	1.30 b-d	2.05 cd
N10046ol	5.74 k-q	2.27 c-i	79.66 a-e	5.34 e-g	1.18 g-i	1.93 e-k
N10047ol	5.71 l-q	2.16 g-m	79.90 a-d	5.21 e-g	1.15 h-m	1.96 d-i
N10051ol	5.78 i-p	2.30 c-f	80.46 a-c	4.74 e-g	1.16 h-l	1.83 j-m
N10053ol	5.88 i-n	2.26 d-j	79.06 a-f	5.36 e-g	1.20 f-h	2.11 bc
N10061oIFCLSm	5.76 j-q	2.08 lm	79.38 a-e	5.33 e-g	1.12 k-n	2.10 bc
N10066oISmT	6.13 f-j	2.10 k-m	78.39 b-g	5.98 e-g	1.11 l-n	2.06 b-d
N10070oICLSmT	6.03 h-k	2.20 e-m	79.23 a-f	5.35 e-g	1.12 k-n	2.01 c-f
N10078oIJC	5.51 o-q	2.13 j-m	80.42 a-c	4.92 e-g	1.11 l-n	2.03 c-f
N10080oIJCL	5.45 pq	2.11 k-m	80.96 ab	4.47 e-g	1.12 k-n	2.00 c-g
N10082oIJC	5.57 m-q	2.17 f-m	80.95 ab	4.63 e-g	1.13 j-n	1.87 h-l
N11019oIJ	9.63 ab	2.09 lm	51.46 ij	30.24 ab	1.14 i-n	1.36 s
N11020oIJ	5.72 k-q	2.21 e-l	80.16 a-c	4.81 e-g	1.17 g-k	1.99 c-h
N11024ol	5.76 j-q	2.59 b	80.11 a-c	4.59 e-g	1.33 bc	1.74 m-o
N11028ol	5.79 i-p	2.58 b	81.00 a	3.93 fg	1.31 b-d	1.71 no
N11034ol	5.40 q	2.28 c-g	81.14 a	4.47 e-g	1.18 g-j	1.85 i-m
N11039oIFSr	5.63 l-q	2.13 i-m	79.23 a-f	6.19 e	1.13 j-n	1.91 f-l
N11048ol	5.87 i-o	2.07 lm	80.15 a-c	5.00 e-g	1.12 l-n	1.96 d-i
N11051oIJ	5.80 i-p	2.24 e-k	79.86 a-d	5.16 e-g	1.15 h-m	1.97 d-i
SPT 10-05	6.60 e	2.40 cd	78.33 c-g	4.72 e-g	1.28 de	2.04 c-e
SPT 10-12ol	6.15 f-i	2.63 b	76.73 f-h	5.89 e-g	1.33 bc	2.28 a
SPT 10-14ol	5.95 i-l	2.30 c-f	78.09 c-g	6.33 e	1.15 h-m	2.18 ab
Mean	6.56	2.30	73.72	10.28	1.20	1.86
LSD_{0.05}²	0.37	0.14	2.57	2.21	0.05	0.12

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Peanut Variety & Quality Evaluation Results – II Quality Data 2013

Fatty Acid Results

Table 24. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 2, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.83 cd	1.45 d-i	95.62 d	1.92 h	17.04 b	1.64 b	5.62 b-g
CHAMPS	2.97 bc	1.54 b-f	96.25 cd	1.74 h	17.87 a	1.65 b	5.85 b-d
Phillips	2.96 bc	1.52 c-g	96.89 b-d	1.73 h	17.42 ab	1.71 ab	5.76 b-f
Bailey	2.85 cd	1.50 d-h	97.75 a-c	1.66 h	17.28 b	1.77 ab	5.59 c-h
Sugg	2.83 c-e	1.43 e-i	98.02 ab	1.65 h	17.13 b	1.80 a	5.48 d-i
Florida 07	2.88 c	1.73 a	78.66 h-l	13.27 c-g	14.49 e	0.42 d-g	5.77 b-e
Sullivan	2.51 g-k	1.50 d-g	79.99 gh	14.01 b-e	13.05 h-o	0.47 de	5.15 i-n
Wynne	2.53 g-k	1.42 e-i	81.87 ef	8.82 fg	13.84 f	0.65 c	5.17 i-n
N08082oIJCT	2.26 l	1.17 k	82.45 e	8.45 g	13.16 g-m	0.69 c	4.52 o
Spain	3.20 a	1.21 jk	77.12 l	14.96 b-e	15.66 c	0.34 e-g	6.01 ab
N09037ol	2.37 j-l	1.44 e-i	80.06 gh	13.41 b-f	12.85 l-o	0.47 de	4.93 mn
N09039olF	2.45 g-l	1.50 d-h	78.64 h-l	17.66 a-d	13.02 h-o	0.35 d-g	5.08 j-n
N09042olF	2.37 j-l	1.46 d-i	80.31 fg	13.61 b-f	12.89 k-o	0.49 d	4.92 mn
N10043olJ	2.62 f-h	1.52 c-g	77.65 kl	20.66 a	13.52 f-h	0.29 g	5.43 e-j
N10046ol	2.51 g-k	1.39 f-i	79.27 g-k	14.93 b-e	13.09 g-n	0.41 d-g	5.07 j-n
N10047ol	2.49 g-k	1.44 d-i	79.28 g-k	15.48 b-e	12.94 i-o	0.40 d-g	5.08 j-n
N10051ol	2.34 kl	1.41 f-i	78.85 g-k	17.09 a-e	12.98 i-o	0.37 d-g	4.90 m-o
N10053ol	2.62 e-h	1.53 b-f	78.94 g-k	14.85 b-e	13.48 f-h	0.40 d-g	5.34 g-l
N10061olFCLSm	2.65 d-g	1.61 a-d	79.14 g-k	15.48 b-e	13.21 g-l	0.40 d-g	5.37 f-k
N10066olSmT	2.65 d-g	1.58 a-e	79.39 g-j	13.14 d-g	13.58 fg	0.44 d-f	5.35 g-l
N10070olCLSmT	2.55 g-j	1.52 c-g	78.99 g-k	14.87 b-e	13.42 f-i	0.40 d-g	5.20 h-n
N10078olJC	2.49 g-k	1.41 f-i	79.28 g-k	16.37 a-e	12.64 no	0.39 d-g	5.01 k-n
N10080olJCL	2.49 g-k	1.41 f-i	78.94 g-k	18.13 a-c	12.58 o	0.36 d-g	5.02 k-n
N10082olJC	2.33 kl	1.37 f-j	79.12 g-k	17.71 a-d	12.56 o	0.37 d-g	4.82 no
N11019olJ	2.77 c-f	1.33 h-k	97.69 a-c	1.71 h	16.96 b	1.78 ab	5.24 g-m
N11020olJ	2.53 g-k	1.44 e-i	78.83 g-k	16.67 a-e	13.05 h-o	0.37 d-g	5.14 i-n
N11024ol	2.59 f-i	1.31 i-k	78.22 i-l	17.46 a-d	13.57 fg	0.34 e-g	5.23 h-m
N11028ol	2.40 i-l	1.30 i-k	77.81 j-l	20.63 a	13.37 f-k	0.29 g	5.00 k-n
N11034ol	2.35 j-l	1.36 g-j	78.98 g-k	18.33 ab	12.55 o	0.36 d-g	4.87 m-o
N11039olFSr	2.42 h-l	1.37 f-j	80.37 fg	12.81 d-g	12.68 m-o	0.49 d	4.92 mn
N11048ol	2.45 g-l	1.39 f-i	79.13 g-k	16.11 a-e	12.90 j-o	0.39 d-g	4.96 l-n
N11051olJ	2.40 i-l	1.44 e-i	79.16 g-k	15.59 b-e	13.02 h-o	0.37 d-g	4.99 k-n
SPT 10-05	3.16 ab	1.50 d-h	77.13 l	16.54 a-e	14.92 de	0.32 fg	5.93 bc
SPT 10-12ol	3.30 a	1.69 ab	77.98 j-l	14.15 b-e	15.11 d	0.39 d-g	6.33 a
SPT 10-14ol	2.51 g-k	1.49 d-h	79.85 g-i	12.40 e-g	13.40 f-j	0.48 de	5.14 i-n
Mean	2.63	1.45	82.67	12.65	14.14	0.67	5.28
LSD_{0.05}²	0.21	0.17	1.64	4.96	0.50	0.14	0.39

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 25. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Martin County, NC, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	9.18 b	2.64 b	53.33 g	28.03 d	1.34 bc	1.40 no
CHAMPS	9.69 a	2.55 b	51.47 gh	29.15 cd	1.32 bc	1.46 n
Phillips	9.68 a	2.39 c	50.36 h	30.52 bc	1.26 de	1.44 no
Bailey	9.75 a	2.30 c-f	50.23 h	30.77 ab	1.24 ef	1.43 no
Sugg	9.63 a	2.25 d-g	50.13 h	31.02 ab	1.23 e-g	1.44 no
Florida 07	6.60 cd	2.31 c-e	76.50 ef	6.38 f-i	1.20 f-j	2.24 a
Sullivan	5.77 hi	2.19 e-j	79.13 a-d	5.54 h-k	1.18 g-k	2.02 c-g
Wynne	6.16 e-h	2.30 c-f	77.40 de	7.06 e-g	1.22 e-h	1.86 ij
N08082oIJCT	6.41 de	2.22 d-i	76.09 ef	8.46 e	1.17 g-k	1.83 jk
Spain	6.45 c-e	3.36 a	74.91 f	7.13 ef	1.60 a	1.72 lm
N09037ol	5.87 g-i	2.11 i-l	78.97 a-d	6.02 f-j	1.14 kl	1.92 g-j
N09039olF	5.94 f-i	2.13 h-l	79.88 a-c	4.86 j-l	1.15 i-k	1.96 d-h
N09042olF	5.87 g-i	2.04 l	79.71 a-c	5.43 h-l	1.09 l	1.97 d-h
N10043olJ	5.70 i	2.58 b	79.88 a-c	4.29 kl	1.33 bc	2.09 bc
N10046ol	5.85 g-i	2.33 cd	79.22 a-d	5.43 h-l	1.22 e-h	1.92 g-j
N10047ol	5.88 g-i	2.17 g-k	79.19 a-d	5.56 g-k	1.17 h-k	1.96 d-h
N10051ol	5.91 f-i	2.24 d-h	80.00 ab	4.94 h-l	1.15 i-k	1.88 h-j
N10053ol	5.97 f-i	2.32 cd	78.86 a-d	5.20 h-l	1.24 ef	2.11 bc
N10061olFCLSm	5.89 f-i	2.06 kl	79.13 a-d	5.37 h-l	1.13 kl	2.09 bc
N10066olSmT	6.16 e-h	2.17 g-k	78.66 b-d	5.55 g-k	1.14 j-l	2.03 c-f
N10070olCLSmT	6.29 d-f	2.18 f-j	77.99 c-e	6.12 f-j	1.14 kl	2.03 c-f
N10078olJC	5.74 i	2.10 i-l	79.44 a-c	5.39 h-l	1.13 kl	2.06 cd
N10080olJCL	5.75 i	2.09 j-l	79.73 a-c	5.19 h-l	1.13 kl	2.03 c-e
N10082olJC	5.78 hi	2.19 e-j	79.83 a-c	5.27 h-l	1.16 i-k	1.89 h-j
N11019olJ	10.00 a	2.11 i-l	49.72 hi	31.33 ab	1.17 h-k	1.36 o
N11020olJ	5.86 g-i	2.25 d-g	79.34 a-c	5.25 h-l	1.21 e-i	1.98 d-h
N11024ol	5.97 f-i	2.59 b	78.69 b-d	5.54 g-k	1.36 b	1.75 kl
N11028ol	5.90 f-i	2.60 b	80.75 a	3.94 l	1.33 bc	1.70 lm
N11034ol	5.57 i	2.25 d-g	80.73 a	4.63 j-l	1.18 g-k	1.86 ij
N11039olFSr	5.77 hi	2.12 i-l	78.53 b-d	6.46 f-h	1.15 i-k	1.95 e-i
N11048ol	5.95 f-i	2.11 i-l	80.04 ab	4.92 i-l	1.14 j-l	1.92 g-j
N11051olJ	5.93 f-i	2.226 d-g	79.348 a-c	5.35 h-l	1.17 h-k	1.93 f-i
SPT 10-05	6.82 c	2.41 c	77.36 de	5.20 h-l	1.30 cd	2.04 c-e
SPT 10-12ol	6.21 d-g	2.64 b	76.59 ef	5.72 f-k	1.36 b	2.27 a
SPT 10-14ol	5.93 f-i	2.26 d-g	78.71 b-d	5.57 g-k	1.16 i-k	2.18 ab
Mean	6.72	2.30	73.27	10.41	1.21	1.87
LSD_{0.05}²	0.40	0.12	1.92	1.52	0.06	0.10

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 25. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Martin County, NC, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.76 b-h	1.34 g-i	95.50 b	1.90 j	17.25 c	1.63 c	5.44 d-j
CHAMPS	2.89 b-e	1.46 c-i	95.91 b	1.77 j	17.92 ab	1.63 bc	5.68 cd
Phillips	2.91 b-d	1.44 c-i	97.32 a	1.66 j	17.68 a-c	1.73 ab	5.61 c-e
Bailey	2.84 b-f	1.46 c-i	97.61 a	1.63 j	17.58 bc	1.75 a	5.53 c-g
Sugg	2.89 b-e	1.42 e-i	97.98 a	1.62 j	17.42 bc	1.78 a	5.54 c-g
Florida 07	3.01 b	1.78 a	78.61 f-i	12.48 f-h	14.88 e	0.43 e-h	5.97 bc
Sullivan	2.62 f-k	1.56 b-e	79.24 d-g	15.07 c-g	13.32 g-m	0.42 e-h	5.36 d-k
Wynne	2.60 f-k	1.42 e-i	80.26 d	12.27 g-i	13.69 f-j	0.51 e	5.24 d-k
N08082oIJCT	2.51 h-k	1.32 g-i	81.53 c	9.10 i	13.63 f-k	0.63 d	5.00 jk
Spain	3.52 a	1.31 g-i	78.13 g-j	11.56 hi	16.25 d	0.44 e-g	6.43 a
N09037ol	2.50 h-k	1.47 c-h	79.86 de	13.31 d-h	13.09 j-m	0.46 e-g	5.10 g-k
N09039olF	2.56 g-k	1.53 c-f	78.65 f-i	16.54 b-d	13.30 g-m	0.37 g-j	5.24 d-k
N09042olF	2.41 k	1.49 c-g	79.51 d-f	15.75 b-f	12.89 lm	0.42 e-h	4.99 k
N10043olJ	2.79 b-g	1.35 g-i	77.78 h-j	18.84 ab	13.74 f-i	0.31 ij	5.46 d-i
N10046ol	2.60 f-k	1.42 e-i	79.05 e-g	14.65 c-h	13.44 f-l	0.40 f-i	5.25 d-k
N10047ol	2.60 f-k	1.47 c-i	79.29 d-f	14.54 c-h	13.29 g-m	0.42 e-h	5.24 d-k
N10051ol	2.43 k	1.45 c-i	78.85 e-h	16.27 b-e	13.17 h-m	0.38 g-j	5.02 i-k
N10053ol	2.75 b-i	1.57 b-e	78.48 f-i	15.28 c-g	13.84 fg	0.38 g-j	5.55 c-f
N10061olFCLSm	2.74 b-i	1.60 bc	79.00 e-g	15.03 c-g	13.41 f-m	0.40 f-i	5.47 d-h
N10066olSmT	2.70 c-j	1.60 b-d	78.86 e-h	14.30 c-h	13.77 f-h	0.40 f-i	5.45 d-i
N10070olCLSmT	2.71 c-j	1.56 b-e	79.27 d-g	13.02 e-h	13.87 fg	0.44 e-g	5.41 d-k
N10078olJC	2.67 d-k	1.48 c-h	79.28 d-g	14.89 c-g	13.12 i-m	0.41 f-i	5.28 d-k
N10080olJCL	2.63 e-k	1.45 c-i	79.16 d-g	15.86 b-e	13.05 k-m	0.40 g-i	5.21 e-k
N10082olJC	2.49 i-k	1.42 e-i	79.26 d-g	15.57 b-g	13.03 k-m	0.40 f-i	5.06 h-k
N11019olJ	2.95 bc	1.38 f-i	98.09 a	1.59 j	17.60 bc	1.78 a	5.49 d-h
N11020olJ	2.65 d-k	1.47 c-h	78.88 e-h	15.34 c-g	13.44 f-l	0.39 g-i	5.33 d-k
N11024ol	2.75 b-i	1.36 g-i	78.64 f-i	14.91 c-g	14.03 f	0.39 g-i	5.47 d-h
N11028ol	2.48 i-k	1.30 i	77.61 ij	20.52 a	13.62 f-k	0.29 j	5.11 f-k
N11034ol	2.42 k	1.37 f-i	78.91 e-h	17.57 a-c	12.79 m	0.36 g-j	4.97 k
N11039olFSr	2.59 f-k	1.43 d-i	80.25 d	12.31 g-i	13.07 j-m	0.50 ef	5.18 e-k
N11048ol	2.52 g-k	1.40 e-i	78.87 e-h	16.32 b-e	13.12 i-m	0.37 g-j	5.06 h-k
N11051olJ	2.46 jk	1.44 c-i	79.13 d-g	15.06 c-g	13.25 g-m	0.40 f-i	5.06 h-k
SPT 10-05	3.35 a	1.54 c-f	77.14 j	15.05 c-g	15.41 e	0.34 h-i	6.18 ab
SPT 10-12ol	3.49 a	1.72 ab	77.57 ij	14.33 c-h	15.42 e	0.37 g-j	6.57 a
SPT 10-14ol	2.62 e-k	1.56 b-e	79.06 e-g	14.45 c-h	13.54 f-k	0.42 e-h	5.34 d-k
Mean	2.74	1.47	82.52	12.27	14.45	0.66	5.43
LSD_{0.05}²	0.27	0.17	1.15	3.31	0.63	0.10	0.44

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 26. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Rocky Mount, NC, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	8.88 d	2.83 b-d	53.83 g	27.29 d	1.43 b	1.39 op
CHAMPS	9.56 bc	2.54 e-i	51.88 h	28.63 cd	1.35 d-f	1.45 m-o
Phillips	9.52 bc	2.53 e-k	50.90 h	29.99 bc	1.32 e-g	1.36 op
Bailey	9.30 c	2.37 h-m	51.01 h	30.17 b	1.30 f-h	1.42 n-p
Sugg	9.47 bc	2.32 i-n	50.61 h	30.74 ab	1.27 g-j	1.36 op
Florida 07	6.50 f	2.30 j-n	76.71 f	6.21 ef	1.23 i-l	2.20 ab
Sullivan	5.64 k-p	2.30 j-n	80.31 b-d	4.46 g-k	1.22 j-n	1.99 c-e
Wynne	5.80 h-n	2.63 c-g	80.35 a-d	4.47 g-k	1.29 f-i	1.70h-l
N08082oIJCT	6.07 gh	2.70 c-e	78.03 ef	6.34 e	1.32 d-g	1.68 i-l
Spain	6.16 g	3.77 a	76.76 f	5.45 e-i	1.67 a	1.61 j-m
N09037ol	5.91 g-k	2.27 l-o	79.05 de	5.83 e-g	1.17 l-p	1.87 e-h
N09039oIF	5.96 g-j	2.17 m-o	80.25 b-d	4.56 g-k	1.16 m-p	1.90 d-g
N09042oIF	5.85 g-m	2.17 m-o	81.05 a-c	4.26 h-k	1.13 pq	1.84 e-i
N10043oIJ	5.71 i-p	2.85 bc	80.77 a-d	3.37 jk	1.36 c-e	1.88 e-g
N10046ol	5.62 k-p	2.67 c-f	80.80 a-d	4.10 h-k	1.29 f-i	1.74 g-k
N10047ol	5.66 i-p	2.49 e-l	80.45 a-d	4.46 g-k	1.26 g-j	1.80 g-i
N10051ol	5.93 g-k	2.29 k-o	80.20 b-d	4.82 f-j	1.15 o-q	1.84 e-i
N10053ol	5.88 g-l	2.53 e-j	79.56 c-e	4.34 g-k	1.31 e-h	2.06 b-d
N10061oIFCLSm	5.67 i-p	2.41 g-l	80.38 a-d	4.23 h-k	1.25 h-k	1.89 e-g
N10066oISmT	5.75 i-p	2.55 e-h	81.08 a-c	3.79 jk	1.22 j-m	1.78 g-j
N10070oICLSmT	5.87 g-l	2.45 f-l	80.76 a-d	4.04 i-k	1.20 k-o	1.82 f-i
N10078oIJC	5.49 n-p	2.32 i-n	80.54 a-d	4.81 f-j	1.18 l-p	1.84 e-i
N10080oIJCL	5.46 p	2.35 h-n	82.12 a	3.62 jk	1.16 n-q	1.78 g-i
N10082oIJC	5.65 j-p	2.41 g-l	80.61 a-d	4.38 g-k	1.23 i-l	1.82 f-i
N11019oIJ	9.63 ab	2.37 h-m	51.38 h	30.16 b	1.23 i-l	1.25 p
N11020oIJ	5.59 l-p	2.61 d-g	80.98 a-c	3.82 jk	1.30 f-h	1.80 f-i
N11024ol	5.55 m-p	2.90 b	81.26 a-c	3.43 jk	1.44 b	1.59 k-m
N11028ol	5.80 h-n	2.81 b-d	81.51 ab	3.27 k	1.38 b-d	1.60 k-m
N11034ol	5.48 op	2.28 l-o	81.45 ab	4.12 h-k	1.17 l-p	1.85 e-h
N11039oIFSr	5.82 h-m	2.13 no	80.01 b-d	5.58 e-h	1.10 q	1.86 e-h
N11048ol	5.90 g-l	2.37 h-m	80.92 a-c	4.01 i-k	1.21 j-o	1.80 g-i
N11051oIJ	5.86 g-m	2.44 f-l	80.11 b-d	4.81 f-j	1.21 j-o	1.81 f-i
SPT 10-05	6.90 e	2.51 e-k	77.20 f	5.41 e-i	1.32 e-g	1.97 c-f
SPT 10-12ol	5.97 g-i	2.84 bc	78.01 ef	4.26 h-k	1.42 bc	2.26 a
SPT 10-14ol	5.79 h-o	2.41 g-l	81.05 a-c	4.25 h-k	1.21 j-o	2.12 a-c
Mean	6.54	2.50	74.41	9.43	1.26	1.76
LSD_{0.05}²	0.32	0.23	1.78	1.50	0.06	0.17

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 26. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Rocky Mount, NC, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.90 de	1.49 b-h	94.64 c	1.98 k	17.51 cd	1.56 b	5.81 c-e
CHAMPS	3.00 cd	1.62 bc	95.34 c	1.81 k	18.06 ab	1.59 b	5.96 b-d
Phillips	2.91 de	1.50 b-g	96.78 b	1.70 k	17.77 bc	1.69 a	5.72 c-e
Bailey	2.91 de	1.54 b-e	97.23 ab	1.69 k	17.41 cd	1.74 a	5.74 c-e
Sugg	2.83 d-f	1.42 e-l	97.84 ab	1.65 k	17.30 d	1.78 a	5.52 e-g
Florida 07	3.06 b-d	1.82 a	78.44 e-i	12.52 j	14.90 g	0.42 c-f	6.11 bc
Sullivan	2.55 g-k	1.56 b-e	78.34 f-j	18.13 d-i	13.26 kl	0.34 e-i	5.32 f-j
Wynne	2.41 i-m	1.35 h-m	78.18 g-k	18.07 d-i	13.49 j-l	0.33 f-i	5.06 h-l
N08082oIJCT	2.49 h-l	1.39 f-m	79.40 d-f	12.36 j	13.96 hi	0.46 c	5.20 g-k
Spain	3.29 ab	1.30 k-m	76.73 no	14.08 h-j	16.18 e	0.34 e-i	6.26 b
N09037ol	2.46 h-m	1.47 d-h	79.55 de	13.88 ij	13.27 kl	0.44 c-e	5.08 h-k
N09039oIF	2.49 h-l	1.53 b-f	78.41 f-j	17.60 e-i	13.30 kl	0.34 e-i	5.18 g-k
N09042oIF	2.27 lm	1.44 e-k	78.53 e-i	19.11 b-h	12.86 mn	0.33 f-i	4.84 l-m
N10043oIJ	2.56 g-k	1.51 b-g	76.78 m-o	24.10 ab	13.98 hi	0.24 i	5.43 e-i
N10046ol	2.41 i-m	1.38 g-m	77.96 g-l	19.71 b-f	13.66 j-l	0.31 g-i	5.08 h-k
N10047ol	2.48 h-m	1.42 e-l	78.33 f-j	18.06 d-i	13.31 kl	0.34 f-i	5.16 g-k
N10051ol	2.35 k-m	1.45 d-j	78.76 e-h	16.80 e-j	13.16 lm	0.37 c-g	4.95 j-m
N10053ol	2.75 e-g	1.59 b-d	77.56 i-n	18.42 d-i	14.05 h	0.31 g-i	5.65 d-f
N10061oIFCLSm	2.62 f-i	1.59 b-d	77.93 g-l	19.35 b-g	13.52 j-l	0.31 g-i	5.45 e-h
N10066oISmT	2.68 j-m	1.48 c-i	77.69 h-n	21.44 a-e	13.37 j-l	0.29 g-i	5.07 h-k
N10070oICLSmT	2.41 i-m	1.47 c-i	77.88 h-m	20.01 a-e	13.40 j-l	0.30 g-i	5.07 h-k
N10078oIJC	2.43 i-m	1.42 e-l	79.04 d-g	18.74 c-i	12.82 mn	0.37 c-g	5.02 j-l
N10080oIJCL	2.25 m	1.27 m	78.30 f-j	22.68 a-d	12.48 n	0.29 g-i	4.67 lm
N10082oIJC	2.48 h-m	1.44 e-k	78.34 f-j	18.93 c-i	13.20 lm	0.33 f-i	5.15 g-k
N11019oIJ	2.68 e-h	1.32 j-m	97.41 ab	1.71 k	17.21 d	1.75 a	5.22 g-k
N11020oIJ	2.48 h-m	1.44 e-k	77.67 h-n	21.23 a-e	13.41 j-l	0.29 g-i	5.22 g-k
N11024ol	2.54 g-k	1.31 j-m	77.07 k-o	23.73 a-c	13.73 h-j	0.25 hi	5.29 f-j
N11028ol	2.38 j-m	1.28 lm	77.01 l-o	24.97 a	13.64 i-k	0.24 i	5.03 i-l
N11034ol	2.34 k-m	1.34 i-m	78.63 e-i	19.80 b-e	12.59 n	0.33 f-i	4.84 k-m
N11039oIFSr	2.26 lm	1.26 m	79.93 d	14.67 f-j	12.57 n	0.45 cd	4.62 m
N11048ol	2.43 i-m	1.39 f-m	77.96 g-l	20.18 a-e	13.28 kl	0.30 g-i	5.01 j-m
N11051oIJ	2.36 k-m	1.42 e-l	78.65 e-i	17.64 d-i	13.28 kl	0.36 c-g	4.98 j-m
SPT 10-05	3.19 bc	1.53 b-f	77.31 j-o	14.33 g-j	15.43 f	0.35 d-h	6.03 b-d
SPT 10-12ol	3.47 a	1.79 a	76.24 o	18.54 d-i	15.49 f	0.28 g-i	6.68 a
SPT 10-14ol	2.60 f-j	1.64 b	77.82 h-n	19.07 b-h	13.64 i-k	0.31 g-i	5.45 e-h
Mean	2.63	1.47	81.72	15.28	14.40	0.59	5.36
LSD_{0.05}²	0.24	0.15	1.13	5.07	0.40	0.10	0.40

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.³ Lower iodine value indicates longer shelf life.⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 27. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Bladen County, NC, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	9.03 b	2.99 bc	56.22 h	25.04 c	1.42 bc	1.29 b
CHAMPS	9.58 a	2.64 d-h	53.11 i	27.62 b	1.36 c-e	1.36 b
Phillips	9.62 a	2.52 e-l	51.34 i	29.48 a	1.32 d-h	1.35 b
Bailey	9.63 a	2.39 h-n	52.30 i	29.13 ab	1.26 g-l	1.27 b
Sugg	9.54 a	2.35 i-p	51.57 i	29.86 a	1.27 f-k	1.30 b
Florida 07	6.59 d	2.66 d-g	77.52 e-g	5.10 e-i	1.34 d-f	2.01 b
Sullivan	5.83 g-k	2.37 i-o	80.61 a-c	4.40 f-k	1.21 k-o	1.79 b
Wynne	5.91 g-j	2.57 e-k	81.02 a-c	4.00 f-k	1.26 h-l	1.63 b
N08082oIJCT	6.45 de	2.60 d-j	77.32 e-g	7.43 d	1.26 h-l	1.50 b
Spain	6.35 d-f	3.70 a	75.62 g	6.50 de	1.64 a	1.52 b
N09037ol	5.72 h-k	2.32 k-q	80.73 a-c	4.32 f-k	1.20 k-o	1.81 b
N09039oIF	6.16 e-g	2.13 o-q	80.10 a-e	4.87 e-j	1.14 op	1.78 b
N09042oIF	5.85 g-k	2.10 pq	81.13 a-c	4.18 f-k	1.12 p	1.87 b
N10043oIJ	5.79 g-k	2.85 b-d	80.92 a-c	3.09 k	1.38 cd	1.90 b
N10046ol	5.71 h-k	2.52 e-l	80.92 a-c	4.18 f-k	1.26 g-l	1.69 b
N10047ol	5.92 g-j	2.46 g-n	79.44 b-f	5.25 ef	1.26 g-l	1.76 b
N10051ol	5.94 f-j	2.34 j-p	80.04 a-e	4.88 e-j	1.20 k-o	1.76 b
N10053ol	6.15 e-g	2.52 e-l	79.65 a-f	4.42 f-k	1.29 e-j	1.92 b
N10061oIFCLSm	5.76 g-k	2.47 g-n	81.25 a-c	3.53 h-k	1.26 h-l	1.73 b
N10066oIFSmT	5.92 g-j	2.55 e-k	80.96 a-c	3.82 f-k	1.23 j-n	1.72 b
N10070oIFCLSmT	6.01 f-i	2.52 e-l	80.87 a-c	4.01 f-k	1.20 k-o	1.69 b
N10078oIJC	5.74 h-k	2.32 k-q	80.03 a-e	5.23 e-g	1.18 m-p	1.78 b
N10080oIJCL	5.50 k	2.26 m-q	81.69 ab	3.87 f-k	1.17 n-p	1.79 b
N10082oIJC	6.09 e-h	2.41 g-n	77.68 d-g	7.08 d	1.24 i-n	1.67 b
N11019oIJ	9.66 a	2.44 g-n	52.14 i	29.35 a	1.27 f-k	1.17 b
N11020oIJ	5.70 h-k	2.42 g-n	81.14 a-c	3.82 f-k	1.26 h-l	1.76 b
N11024ol	5.69 h-k	3.03 b	81.80 a-c	3.34 jk	1.47 b	1.50 b
N11028ol	5.88 g-k	2.75 c-f	82.07 ab	3.09 k	1.33 d-g	1.48 b
N11034ol	5.65 i-k	2.27 l-q	81.46 ab	3.95 f-k	1.19 l-o	1.77 b
N11039oIFSr	5.56 jk	2.35 i-p	82.27 a	3.42 i-k	1.20 k-o	1.68 b
N11048ol	5.98 f-i	2.22 n-q	80.02 a-c	4.23 f-k	1.17 n-p	1.72 b
N11051oIJ	5.70 h-k	2.49 f-m	81.26 a-c	3.73 f-k	1.25 h-m	1.76 b
SPT 10-05	7.16 c	2.61 d-i	77.15 fg	5.19 e-h	1.35 c-e	1.86 b
SPT 10-12ol	5.81 g-k	2.76 c-e	78.52 c-f	3.54 g-k	1.41 bc	2.04 b
SPT 10-14ol	5.84 g-k	2.74 c-f	80.44 a-d	3.63 f-k	1.31 d-i	1.94 b
Mean	6.65	2.51	74.57	9.19	1.27	1.82
LSD_{0.05}²	0.40	0.26	2.79	1.69	0.07	2.87

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 27. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Bladen County, NC, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.6 e-h	1.37 e-i	92.73 c	2.26 l	17.46 ab	1.44 c	5.45 d-f
CHAMPS	2.84 d-f	1.50 c-e	94.59 b	1.93 l	17.92 a	1.54 b	5.70 cd
Phillips	2.88 de	1.52 cd	96.26 a	1.75 l	17.85 ab	1.66 a	5.71 cd
Bailey	2.63 f-i	1.41 d-i	96.43 a	1.80 l	17.31 ab	1.68 a	5.29 e-j
Sugg	2.76 e-g	1.37 e-i	97.09 a	1.73 l	17.28 ab	1.73 a	5.40 d-h
Florida 07	3.02 cd	1.78 b	77.09 j-m	15.20 ij	15.38 d	0.34 e-j	6.13 b
Sullivan	2.38 k-n	1.43 c-g	78.36 f-i	18.32 e-i	13.20 h-k	0.34 e-j	5.01 h-n
Wynne	2.35 k-n	1.28 h-k	77.89 g-l	20.29 c-h	13.36 f-j	0.30 f-m	4.88 k-n
N08082oIJCT	2.26 mn	1.20 jk	80.54 d	10.45 k	13.76 e-h	0.54 d	4.72 n
Spain	3.41 b	1.27 i-k	77.50 i-m	11.97 jk	16.36 c	0.40 ef	6.14 b
N09037ol	2.44 h-n	1.47 c-f	78.34 f-i	18.77 e-i	13.15 h-k	0.33 e-k	5.12 f-m
N09039olF	2.41 i-n	1.42 c-h	78.72 f-h	16.46 hi	13.26 h-k	0.37 e-i	4.98 i-n
N09042olF	2.34 l-n	1.44 c-g	78.48 f-i	19.44 d-h	12.83 jk	0.33 e-l	4.89 k-n
N10043olJ	2.62 f-j	1.48 c-f	76.43 m	26.23 ab	14.11 e	0.22 m	5.47 d-f
N10046ol	2.37 k-n	1.36 e-i	78.17 f-j	19.37 d-h	13.22 h-k	0.32 e-m	4.99 i-n
N10047ol	2.49 h-m	1.42 c-i	78.80 fg	15.17 ij	13.56 e-i	0.39 e-g	5.17 e-l
N10051ol	2.40 i-n	1.45 c-g	78.67 f-h	16.66 g-i	13.33 g-j	0.37 e-h	5.04 g-n
N10053ol	2.62 f-j	1.44 c-g	77.67 g-l	18.05 f-i	14.01 ef	0.32 e-m	5.35 d-i
N10061olFCLSm	2.51 h-l	1.51 c-e	77.35 i-m	23.03 a-d	13.50 e-i	0.26 j-m	5.27 e-k
N10066olSmT	2.38 k-n	1.45 c-g	77.59 h-l	21.20 c-f	13.52 e-i	0.28 h-m	5.05 g-n
N10070olCLSmT	2.31 l-n	1.40 d-i	77.82 g-l	20.32 c-h	13.44 f-j	0.30 g-m	4.91 j-n
N10078olJC	2.39 j-n	1.36 e-i	79.28 ef	16.89 g-i	12.98 i-k	0.40 e	4.92 j-n
N10080olJCL	2.35 k-n	1.38 d-i	78.37 f-i	21.16 c-f	12.65 k	0.31 e-m	4.90 j-n
N10082olJC	2.46 h-m	1.40 d-i	80.38 de	11.47 jk	13.59 e-i	0.52 d	5.10 f-n
N11019olJ	2.66 e-h	1.31 g-k	96.61 a	1.78 l	17.34 ab	1.70 a	5.24 e-l
N11020olJ	2.49 h-m	1.43 c-g	77.77 g-l	21.30 c-f	13.30 h-k	0.29 h-m	5.18 e-l
N11024ol	2.52 h-l	1.28 h-k	76.79 lm	24.30 a-c	13.98 e-g	0.24 k-m	5.26 e-k
N11028ol	2.22 n	1.19 k	77.11 j-m	26.57 a	13.36 f-j	0.23 lm	4.74 mn
N11034ol	2.38 k-n	1.34 f-j	78.30 f-i	20.68 c-g	12.83 jk	0.31 e-m	4.91 j-n
N11039olFSr	2.27 mn	1.28 h-k	77.98 g-k	24.14 a-c	12.65 k	0.27 i-m	4.74 mn
N11048ol	2.35 k-n	1.33 f-k	78.36 f-i	19.78 d-h	13.04 i-k	0.32 e-l	4.85 l-n
N11051olJ	2.39 j-n	1.44 c-g	77.72 g-l	21.82 c-f	13.26 h-k	0.29 h-m	5.08 f-n
SPT 10-05	3.18 bc	1.51 c-e	76.81 lm	14.87 ij	15.80 cd	0.33 e-l	6.04 bc
SPT 10-12ol	3.84 a	2.07 a	75.28 n	22.15 c-e	15.89 cd	0.22 m	7.33 a
SPT 10-14ol	2.57 g-k	1.56 c	76.99 k-m	22.22 b-e	14.00 ef	0.26 j-m	5.43 d-g
Mean	2.56	1.42	81.49	15.77	14.41	0.58	5.25
LSD_{0.05}²	0.23	0.15	1.14	4.05	0.66	0.10	0.40

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.³ Lower iodine value indicates longer shelf life.⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 28. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, 2013¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
N10047ol	6.08 ef	2.62 c-h	78.24 a	5.50 e	1.34 c-f	1.88 a-d
N10078olJC	5.55 f	2.52 c-h	80.94 a	3.76 e	1.28 ef	1.86 a-e
N11024ol	5.90 ef	2.86 bc	79.84 a	4.11 e	1.46 bc	1.70 b-i
N10046ol	5.88 ef	2.82 b-d	79.08 a	5.26 e	1.36 b-f	1.70 b-i
N10070olCLSmT	5.97 ef	2.78 b-e	80.07 a	4.18 e	1.32 c-f	1.74 a-i
N10053ol	6.06 ef	2.79 b-d	78.66 a	5.14 e	1.38 b-f	1.81 a-h
N10082olJC	6.05 ef	2.71 b-g	79.29 a	4.53 e	1.36 b-f	1.80 a-h
N11020olJ	6.02 ef	2.71 b-h	78.90 a	5.14 e	1.35 b-f	1.78 a-i
N10080olJCL	5.84 ef	2.55 c-h	79.21 a	4.99 e	1.29 ef	1.91 a-c
Wynne	5.85 ef	2.76 b-f	80.17 a	4.26 e	1.36 b-f	1.69 b-i
N08082olJCT	7.19 b-e	2.72 b-g	70.82 a-c	12.19 b-e	1.36 b-f	1.62 c-i
N11039olFSr	5.92 ef	2.40 gh	79.45 a	5.16 e	1.24 f	1.84 a-g
SPT 10-14ol	6.03 ef	2.73 b-g	79.21 a	4.99 e	1.35 b-f	1.47 i
N10066olSmT	6.69 ef	2.71 b-h	74.41 a	9.07 e	1.32 c-f	1.67 b-i
N11028ol	6.90 c-f	2.85 bc	73.03 ab	10.12 e	1.44 b-d	1.57 d-i
N09042olF	6.80 d-f	2.42 e-h	74.22 a	9.46 e	1.25 ef	1.71 a-i
SPT 10-12ol	7.08 c-f	2.66 b-h	70.58 a-c	11.52 c-e	1.38 b-e	1.87 a-e
N11034ol	6.73 ef	2.64 b-h	72.68 ab	10.55 de	1.35 b-f	1.70 b-i
N11048ol	6.26 ef	2.52 c-h	78.68 a	5.41 e	1.30 ef	1.76 a-i
N11051olJ	5.90 ef	2.73 b-g	80.74 a	3.80 e	1.32 c-f	1.72 a-i
N11019olJ	8.39 a-c	2.58 c-h	61.90 b-d	19.91 a-d	1.34 c-f	1.52 g-i
N10051ol	5.82 ef	2.51 c-h	80.63 a	3.96 e	1.27 ef	1.82 a-h
N10043olJ	5.89 ef	2.75 b-g	79.78 a	4.18 e	1.37 b-f	1.85 a-f
N09037ol	5.99 ef	2.99 b	79.06 a	4.43 e	1.48 b	1.74 a-i
Sullivan	5.80 ef	2.65 b-h	79.85 a	4.25 e	1.35 b-f	1.89 a-c
N09039olF	6.23 ef	2.47 d-h	78.82 a	5.26 e	1.28 ef	1.80 a-h
N10061olFCLSm	5.91 ef	2.65 b-h	79.57 a	4.26 e	1.35 b-f	1.89 a-d
SPT 10-05	6.67 ef	2.49 d-h	77.31 a	5.15 e	1.36 b-f	2.03 a
Georgia 06G	8.72 ab	2.67 b-h	60.18 cd	20.77 a-c	1.36 b-f	1.55 e-i
Georgia 11J	5.98 ef	3.78 a	77.75 a	3.87 e	1.83 a	1.74 a-i
Georgia 07W	8.87 a	2.35 h	58.78 d	22.11 a	1.31 d-f	1.59 c-i
Bailey	8.31 a-d	2.54 c-h	60.74 cd	21.29 ab	1.34 c-f	1.51 hi
NC-V 11	8.79 a	2.56 c-h	59.83 cd	21.77 a	1.30 ef	1.49 hi
Georgia 12Y	9.05 a	2.72 b-g	55.68 d	24.33 a	1.45 bc	1.54 f-i
TufRunner	6.03 ef	2.41 f-h	76.90 a	6.81 e	1.29 ef	1.99 ab
Mean	6.60	2.67	74.71	8.61	1.36	1.73
LSD_{0.05}²	1.53	0.36	11.16	9.52	0.14	0.32

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.

Fatty Acid Results

Table 28. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, 2013¹ (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
N10047ol	2.85 d-h	1.51 c-h	78.29 de	14.81 a-f	14.39 g-i	0.39 de	5.70 c-f
N10078olJC	2.62 f-h	1.47 c-h	77.59 de	21.80 a	13.44 i	0.28 de	5.37 ef
N11024ol	2.75 e-h	1.38 gh	77.13 de	19.50 ab	14.35 g-i	0.29 de	5.58 d-f
N10046ol	2.51 gh	1.39 f-h	78.46 de	17.16 a-c	13.96 hi	0.37 de	5.26 ef
N10070olCLSmT	2.53 gh	1.43 e-h	77.48 de	19.88 ab	14.01 hi	0.30 de	5.27 ef
N10053ol	2.69 f-h	1.47 c-h	77.99 de	15.54 a-e	14.39 g-i	0.36 de	5.54 d-f
N10082olJC	2.80 d-h	1.47 c-h	77.46 de	18.59 ab	14.39 g-i	0.32 de	5.63 d-f
N11020olJ	2.65 f-h	1.47 c-h	78.16 de	16.49 a-d	14.19 g-i	0.36 de	5.46 d-f
N10080olJCL	2.75 e-h	1.47 c-h	78.27 de	16.85 a-c	13.90 hi	0.36 de	5.51 d-f
Wynne	2.54 gh	1.38 gh	77.66 de	19.37 ab	13.88 hi	0.31 de	5.28 ef
N08082olJCT	2.68 f-h	1.43 e-h	83.30 b-d	9.59 c-i	15.38 d-i	0.74 b-d	5.47 d-f
N11039olFSr	2.55 gh	1.44 d-h	78.73 de	16.24 a-d	13.54 hi	0.38 de	5.24 ef
SPT 10-14ol	2.40 h	1.83 a	77.92 de	17.52 a-c	14.34 g-i	0.35 de	5.58 d-f
N10066olSmT	2.65 f-h	1.48 c-h	81.02 de	16.72 a-c	14.85 e-i	0.56 de	5.45 d-f
N11028ol	2.71 e-h	1.39 f-h	81.57 de	14.18 a-g	15.29 d-i	0.62 de	5.54 d-f
N09042olF	2.65 f-h	1.49 c-h	81.56 de	14.99 a-f	14.61 f-i	0.58 de	5.39 ef
SPT 10-12ol	3.26 a-d	1.66 a-c	82.12 cd	13.15 a-h	16.04 b-g	0.69 c-e	6.30 a-c
N11034ol	2.88 c-g	1.49 c-h	82.11 cd	15.83 a-d	15.08 d-i	0.60 de	5.71 c-f
N11048ol	2.67 f-h	1.40 f-h	78.42 de	17.36 a-c	14.15 g-i	0.38 de	5.37 ef
N11051olJ	2.46 gh	1.35 h	77.37 de	21.24 ab	13.75 hi	0.28 de	5.13 f
N11019olJ	2.92 b-g	1.46 d-h	88.91 a-c	6.65 e-i	16.68 a-e	1.16 a-c	5.71 c-f
N10051ol	2.55 gh	1.46 d-h	77.64 de	20.39 ab	13.60 hi	0.29 de	5.27 ef
N10043olJ	2.68 f-h	1.51 c-h	77.32 de	20.51 ab	14.19 g-i	0.30 de	5.55 d-f
N09037ol	2.88 c-g	1.44 d-h	77.04 de	19.52 ab	14.77 e-i	0.30 de	5.79 c-f
Sullivan	2.70 e-h	1.52 b-h	77.53 de	19.49 ab	14.01 hi	0.30 de	5.57 d-f
N09039olF	2.66 f-h	1.49 c-h	78.32 de	16.16 a-d	14.13 g-i	0.37 de	5.43 ef
N10061olFCLSm	2.81 d-h	1.58 b-f	77.30 de	19.03 ab	14.28 g-i	0.30 de	5.73 c-f
SPT 10-05	3.34 a-c	1.65 a-c	77.02 de	15.09 a-f	15.50 d-h	0.33 de	6.35 a-c
Georgia 06G	3.17 a-e	1.59 b-e	88.96 a-c	4.92 hi	17.50 a-c	1.15 a-c	6.11 b-d
Georgia 11J	3.56 a	1.49 c-h	74.94 e	20.81 ab	16.64 a-e	0.24 e	6.89 a
Georgia 07W	3.38 ab	1.63 b-d	90.11 ab	7.66 d-i	17.52 ab	1.18 ab	6.30 a-c
Bailey	2.80 d-h	1.49 c-h	90.29 a	5.66 g-i	16.47 a-f	1.25 a	5.62 d-f
NC-V 11	2.73 e-h	1.55 b-g	90.34 a	6.39 f-i	16.91 a-d	1.24 a	5.57 d-f
Georgia 12Y	3.55 a	1.71 ab	91.23 a	3.92 i	18.46 a	1.26 a	6.70 ab
TufRunner	3.04 b-f	1.54 b-h	79.49 de	12.62 b-i	14.31 g-i	0.47 de	5.88 c-e
Mean	2.81	1.50	80.54	15.30	14.94	0.53	5.66
LSD_{0.05}²	0.48	0.19	6.85	8.98	2.01	0.49	0.67

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 29. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated averaged across all locations, 2013.¹

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	9.07 d	2.78 bc	53.85 d	27.33 d	1.39 b-d	1.36 i
CHAMPS	9.59 a-c	2.59 de	51.72 de	28.80 b-d	1.34 de	1.45 g-i
Phillips	9.63 ab	2.48 e-i	50.62 e	30.23 a-c	1.29 fg	1.38 i
Bailey	9.28 cd	2.36 h-m	53.02 de	28.27 cd	1.28 f-h	1.44 hi
Sugg	9.52 bc	2.29 k-n	50.64 e	30.62 ab	1.25 g-j	1.39 i
Florida 07	6.54 fg	2.40 f-l	76.85 bc	5.85 f-h	1.25 g-j	2.22 ab
Sullivan	5.77 lm	2.38 i-l	79.71 a	4.83 f-h	1.24 g-k	1.95 b-f
Wynne	5.96 j-m	2.54 e-g	79.43 a	5.16 f-h	1.28 f-i	1.75 e-h
N08082oIJCT	6.55 f	2.55 ef	75.16 c	8.87 e	1.28 f-h	1.69 d-i
Spain	6.31 f-i	3.66 a	75.45 c	6.57 fg	1.65 a	1.64 e-i
N09037ol	5.88 j-m	2.38 h-l	79.27 ab	5.27 f-h	1.24 g-k	1.88 b-f
N09039oIF	6.08 h-l	2.22 mn	79.39 a	5.08 f-h	1.19 l-n	1.90 b-f
N09042oIF	6.10 h-l	2.18 no	78.86 ab	5.94 f-h	1.15 n	1.87 b-f
N10043oIJ	5.79 lm	2.80 bc	80.01 a	3.98 h	1.37 cd	1.94 b-f
N10046ol	5.82 k-m	2.57 e	79.53 a	5.08 f-h	1.28 f-h	1.80 e-h
N10047ol	5.91 j-m	2.44 e-k	79.07 ab	5.40 f-h	1.26 g-j	1.86 b-f
N10051ol	5.88 j-m	2.36 h-m	80.25 a	4.67 gh	1.18 l-n	1.83 c-f
N10053ol	6.00 i-l	2.56 e	78.90 ab	4.94 f-h	1.31 ef	2.00 b-e
N10061oIFCLSm	5.85 k-m	2.36 j-m	79.81 a	4.58 gh	1.23 i-m	1.95 b-f
N10066oISmT	6.20 g-j	2.46 e-j	78.49 ab	5.83 f-h	1.21 j-m	1.82 c-f
N10070oICLSmT	6.07 h-l	2.47 e-i	79.41 a	4.88 f-h	1.22 j-m	1.87 b-f
N10078oIJC	5.62 m	2.32 j-n	80.23 a	4.76 f-h	1.19 k-n	1.91 b-f
N10080oIJCL	5.64 m	2.31 j-n	80.41 a	4.58 gh	1.19 k-n	1.91 b-f
N10082oIJC	5.84 k-m	2.44 e-j	79.79 a	4.94 f-h	1.25 g-j	1.80 e-h
N11019oIJ	9.48 bc	2.34 i-m	53.35 d	28.02 d	1.24 g-k	1.35 i
N11020oIJ	5.86 j-m	2.45 e-j	79.57 a	4.89 f-h	1.26 f-j	1.88 b-f
N11024ol	5.82 k-m	2.88 b	79.98 a	4.27 h	1.43 b	1.64 e-i
N11028ol	6.14 h-k	2.80 bc	78.94 ab	5.29 f-h	1.39 b-d	1.61 f-i
N11034ol	5.86 j-m	2.39 g-l	78.83 ab	5.94 f-h	1.23 h-l	1.81 c-g
N11039oIFSr	5.77 lm	2.22 mn	79.56 a	5.54 f-h	1.17 mn	1.88 b-f
N11048ol	6.09 h-l	2.26 l-n	79.74 a	5.00 f-h	1.18 mn	1.85 c-f
N11051oIJ	5.86 j-m	2.46 e-j	80.24 a	4.55 gh	1.22 j-m	1.83 c-f
SPT 10-05	6.98 e	2.45 e-j	76.85 bc	5.59 f-h	1.31 ef	2.02 b-d
SPT 10-12ol	6.41 f-h	2.72 cd	75.16 c	6.90 ef	1.40 bc	2.17 bc
SPT 10-14ol	5.91 j-m	2.49 e-h	79.18 ab	4.99 f-h	1.24 g-k	1.98 b-e
Mean	6.59	2.48	74.37	9.31	1.27	1.81
LSD_{0.05}²	0.35	0.15	2.48	2.14	0.05	0.37

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

Fatty Acid Results

Table 29. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated averaged across all locations, 2013¹. (cont.)

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.81 f-h	1.42 h-m	94.72 c	1.98 k	17.46 bc	1.57 c	5.61 ef
CHAMPS	2.97 de	1.54 c-e	95.50 bc	1.80 k	18.04 a	1.60 bc	5.86 d
Phillips	2.90 ef	1.48 c-i	96.98 ab	1.68 k	17.78 ab	1.70 ab	5.67 de
Bailey	2.85 e-g	1.50 c-h	95.69 bc	2.65 k	17.28 c	1.62 bc	5.63 d-f
Sugg	2.87 e-g	1.42 h-m	97.69 a	1.66 k	17.35 bc	1.77 a	5.54 e-g
Florida 07	3.08 d	1.82 a	77.97 f-h	13.70 hi	15.08 f	0.39 e-g	6.15 bc
Sullivan	2.59 i-n	1.53 c-e	78.39 e-h	17.10 c-f	13.51 i-m	0.36 e-g	5.35 g-k
Wynne	2.51 l-p	1.38 k-o	78.63 e-h	16.68 d-g	13.66 h-k	0.38 e-g	5.16 k-n
N08082oIJCT	2.54 j-p	1.37 m-o	81.34 d	10.10 j	14.28 g	0.60 d	5.18 j-n
Spain	3.42 ab	1.31 o	77.56 gh	12.10 ij	16.35 d	0.40 ef	6.38 b
N09037ol	2.60 i-m	1.48 c-j	78.79 e-h	15.86 d-h	13.58 i-l	0.39 e-g	5.31 g-k
N09039oIF	2.58 j-n	1.51 c-f	78.64 e-h	15.95 d-h	13.59 i-k	0.37 e-g	5.28 h-m
N09042oIF	2.44 n-p	1.47 c-j	79.59 e	16.82 d-g	13.33 k-n	0.42 e	5.05 mn
N10043oIJ	2.68 h-j	1.46 e-k	77.22 h	20.91 a	14.08 gh	0.28 g	5.50 e-h
N10046ol	2.52 l-p	1.39 j-n	78.62 e-h	16.47 d-g	13.59 i-k	0.37 e-g	5.19 j-n
N10047ol	2.61 i-m	1.46 e-l	78.83 e-h	14.98 f-h	13.67 h-k	0.40 e-g	5.32 g-k
N10051ol	2.41 p	1.43 h-m	78.54 e-h	17.44 c-f	13.26 k-n	0.35 e-g	5.02 b
N10053ol	2.74 g-i	1.55 cd	77.98 e-h	16.30 d-h	14.17 g	0.35 e-g	5.60 ef
N10061oIFCLSm	2.67 h-l	1.55 c	78.11 e-h	17.96 b-e	13.65 h-k	0.34 e-g	5.45 e-i
N10066oISmT	2.52 k-p	1.47 c-j	79.04 e-g	17.21 c-f	13.87 g-i	0.40 ef	5.20 j-n
N10070oICLSmT	2.57 j-n	1.50 c-g	78.23 e-h	17.06 c-f	13.84 g-j	0.35 e-g	5.30 h-l
N10078oIJC	2.54 j-p	1.43 f-m	78.75 e-h	17.80 b-e	13.40 l-n	0.36 e-g	5.17 k-n
N10080oIJCL	2.54 j-p	1.42 h-m	78.59 e-h	18.27 a-d	13.10 mn	0.35 e-g	5.15 k-n
N10082oIJC	2.53 j-p	1.42 h-m	78.59 e-h	17.14 c-f	13.48 i-n	0.37 e-g	5.20 j-n
N11019oIJ	2.85 e-g	1.38 k-o	95.47 bc	2.90 k	17.29 c	1.61 bc	5.47 e-h
N11020oIJ	2.61 i-m	1.47 d-j	78.39 e-h	16.95 c-g	13.65 h-k	0.36 e-g	5.35 g-k
N11024ol	2.66 i-l	1.32 no	77.48 gh	19.56 a-c	14.11 gh	0.30 fg	5.41 f-j
N11028ol	2.52 l-p	1.31 o	78.32 e-h	20.25 ab	14.16 g	0.36 e-g	5.22 i-n
N11034ol	2.54 j-p	1.40 j-n	79.51 ef	17.85 b-e	13.42 i-n	0.41 ef	5.17 k-n
N11039oIFSr	2.48 m-p	1.38 k-o	79.50 ef	15.50 e-h	13.03 n	0.43 e	5.03 n
N11048ol	2.51 l-p	1.37 l-o	78.70 e-h	16.99 c-f	13.41 i-n	0.37 e-g	5.06 l-n
N11051oIJ	2.42 op	1.41 i-m	78.34 e-h	18.20 a-e	13.37 j-n	0.34 e-g	5.05 mn
SPT 10-05	3.29 bc	1.52 c-e	77.36 h	14.26 g-i	15.55 ef	0.36 e-g	6.12 c
SPT 10-12ol	3.50 a	1.73 b	78.29 e-h	15.00 f-h	15.78 e	0.43 e	6.64 a
SPT 10-14ol	2.56 j-o	1.65 b	78.29 e-h	16.82 d-g	13.85 g-i	0.36 e-g	5.46 e-i
Mean	2.70	1.47	81.52	14.21	14.50	0.59	5.43
LSD_{0.05}²	0.15	0.08	1.62	2.72	0.48	0.12	0.24

¹ Refer to page 3 for an explanation of the computations of these characters.² Least significant difference at 5% probability level.³ Lower iodine value indicates longer shelf life.⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 30. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Two-year averages across all locations, (2012 – 2013)¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	9.74 a	2.71 a	55.36 d	26.58 b	1.21 b	1.20 e
Phillips	10.15 a	2.42 c-g	52.62 e	29.02 a	1.50 a	1.25 e
Bailey	10.05 a	2.34 e-g	53.42 e	28.39 a	1.13 b	1.28 e
Sullivan	6.21 e	2.33 e-g	80.33 a	5.04 d	1.10 b	1.77 ab
Wynne	6.44 c-e	2.50 b-f	79.60 ab	5.64 d	1.14 b	1.59 cd
N08082oIJCT	6.79 cd	2.52 a-e	77.48 c	7.36 c	1.14 b	1.57 d
N09037ol	6.31 de	2.33 e-g	80.03 ab	5.26 d	1.10 b	1.70 a-c
N10046ol	6.16 e	2.56 a-d	80.64 a	4.82 d	1.15 b	1.60 cd
N10047ol	6.21 e	2.41 d-g	80.61 a	4.80 d	1.12 b	1.66 b-d
N10053ol	6.41 c-e	2.36 e-g	80.12 ab	4.92 d	1.11 b	1.82 a
N10066olSmT	6.82 c	2.61 a-c	78.36 bc	3.18 cd	1.11 b	1.63 cd
N10078oIJC	6.01 e	2.31 fg	80.97 a	4.80 d	1.07 b	1.70 a-c
N10080oIJCL	6.12 e	2.28 g	80.68 a	5.02 d	1.06 b	1.72 a-c
N10082oIJC	6.05 e	2.37 e-g	80.08 ab	5.28 d	1.15 b	1.66 b-d
SPT 10-05	7.87 b	2.63 ab	77.13 c	5.48 d	1.18 b	1.82 a
Mean	7.12	2.45	74.82	9.62	1.15	1.61
LSD_{0.05}²	0.51	0.20	1.79	1.47	0.23	0.12

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

Fatty Acid Results

Table 30. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Two-year averages across all locations, (2012 – 2013)¹. (cont.)

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	2.19 b	1.01 a	94.60 b	2.11 d	16.86 a	1.58 b	4.41 bc
Phillips	2.31 b	1.08 a	95.51 a	1.92 d	17.46 a	1.67 a	4.89 ab
Bailey	2.25 b	1.14 a	96.13 a	2.27 d	16.91 a	1.67 a	4.51 a-c
Sullivan	2.08 b	1.15 a	79.21 d	16.99 ab	12.86 e	0.39 d	4.32 bc
Wynne	2.04 b	1.05 a	79.49 cd	17.34 a	13.16 c-e	0.42 d	4.23 c
N08082oIJCT	2.05 b	1.09 a	80.62 c	12.58 c	13.59 cd	0.53 c	4.28 bc
N09037ol	2.10 b	1.15 a	79.28 d	16.35 ab	13.01 de	0.41 d	4.36 bc
N10046ol	2.02 b	1.05 a	78.96 d	17.80 a	12.94 de	0.37 d	4.22 c
N10047ol	2.10 b	1.10 a	78.94 d	17.63 a	12.94 de	0.37 d	4.32 bc
N10053ol	2.12 b	1.15 b	78.86 d	17.80 a	13.14 c-e	0.37 d	4.38 bc
N10066olSmT	2.11 b	1.15 b	79.41 cd	16.48 ab	13.80 c	0.44 d	4.36 bc
N10078olJC	2.06 b	1.08 a	79.30 d	17.95 a	12.53 e	0.38 d	4.20 c
N10080olJCL	2.06 b	1.06 a	79.43 cd	18.07 a	12.59 e	0.39 d	4.19 c
N10082olJC	2.19 b	1.17 a	79.35 d	16.67 ab	12.96 de	0.40 d	4.52 a-c
SPT 10-05	2.69 a	1.20 a	77.27 d	15.06 b	15.57 b	0.36 d	5.07 a
Mean	2.15	1.11	82.28	13.99	13.97	0.64	4.41
LSD_{0.05}²	0.31	0.22	1.23	2.09	0.67	0.09	0.63

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.

Fatty Acid Results

Table 31. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Three-year averages across all locations, (2011 – 2013)¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Gregory	10.08 b	2.72 a	55.12 c	26.91 b	1.15 ab	1.20 c
Phillips	10.55 a	2.48 b	52.27 d	29.34 a	1.34 a	1.17 c
Bailey	10.33 ab	2.40 cd	53.44 d	28.48 a	1.08 b	1.23 c
Sullivan	6.38 c	2.37 d	80.54 a	4.97 d	1.04 b	1.73 a
Wynne	6.67 c	2.53 b	80.00 ab	5.43 cd	1.08 b	1.52 b
N08082oIJCT	6.78 c	2.56 b	78.65 b	6.51 c	1.10 ab	1.54 b
N09037ol	6.40 c	2.32 d	80.46 a	5.15 d	1.04 b	1.65 a
Mean	8.13	2.48	69.04	14.91	1.12	1.44
LSD_{0.05}²	0.42	0.95	1.50	1.29	0.24	0.09

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

Fatty Acid Results

Table 31. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Three-year averages across all locations, (2011 – 2013)¹. (cont.)

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine ³ Value	O/L ⁴ Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Gregory	1.97 a	0.88 a	94.93 b	2.07 c	16.80 b	1.61 b	4.00 a
Phillips	2.10 a	0.95 a	96.72 a	1.86 c	17.43 a	1.69 a	4.39 a
Bailey	2.05 a	0.99 a	96.25 a	2.16 c	16.86 b	1.69 a	4.12 a
Sullivan	1.93 a	1.04 a	79.23 c	17.29 a	12.77 d	0.39 d	4.03 a
Wynne	1.84 a	0.92 a	79.40 c	17.51 a	13.05 cd	0.41 cd	3.84 a
N08082olJCT	1.89 a	0.97 a	80.14 c	14.37 b	13.30 c	0.48 c	3.96 a
N09037ol	1.89 a	0.99 a	79.42 c	16.59 a	12.74 d	0.41 cd	3.92 a
Mean	1.95	0.96	88.34	10.48	14.64	0.93	4.03
LSD_{0.05}²	0.26	0.19	1.02	1.54	0.43	0.08	0.56

¹ Refer to page 3 for an explanation of the computations of these characters.

² Least significant difference at 5% probability level.

³ Lower iodine value indicates longer shelf life.

⁴ Higher O/L ratio indicates longer shelf life.