

PEANUT VARIETY AND QUALITY EVALUATION RESULTS

Quality Data

Tidewater Agricultural Research and Extension Center
Virginia Agricultural Experiment Station

2010

Virginia
Cooperative
Extension



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VCE Publication 3103-1539

PEANUT VARIETY AND QUALITY EVALUATION RESULTS 2010

II. Quality Data

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Information Series No. 495
March 2011

**ACKNOWLEDGEMENTS
FINANCIAL SUPPORT**

The authors gratefully acknowledge financial support from the following institutions and organizations:



SC PEANUT GROWERS

**NC STATE
UNIVERSITY**



TECHNICAL SUPPORT

The following agricultural specialists, technicians, and lab assistants are gratefully acknowledged for their professionalism, and dedication to achieve tasks on time and in a collegial manner: F. Bryant, D. Redd, C. Daughtrey, B. Kennedy, P. Copland, L. Mehalko, and T. Balota. Appreciation is extended to Dr. Allen Harper for his support with implementing collegiality in the PVQE group, and Dr. Pat Phipps for his technical advice and mentoring role of a new faculty member, Dr. Maria Balota. All of the following cooperators are also acknowledged for their various support provided to the PVQE program in 2010.



Louis Mehalko, left, and
Pam Copland, right



From the far left to the right: Doug Redd,
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Agencies

Mr. J. Gillespie, Federal-State Inspection Service

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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 11 Virginia-type cultivars that currently are on the market and 25 advanced breeding lines tested in the Peanut Variety and Quality Evaluation (PVQE) small plots in 2010. The small PVQE plots with 36 varieties were tested at six locations in Virginia, North Carolina, and South Carolina: Suffolk, VA, Southampton Co., VA, Martin Co., NC, Rocky Mount, NC, Whiteville, NC, and Florence, SC. At Suffolk three and at Martin Co., NC, two planting dates were achieved. For the other locations, only one planting date was done. Each genotype was replicated 3 times at each location and planting date. Varieties' names and pedigree are presented in Table 1. Since none of the advanced breeding lines were proposed for release, PVQE seed increase plots were not planted in 2010. A detailed description of the plant material, test locations, weather conditions, and cultural practices is included in the PVQE 2010 Results. I. Agronomic and Grade Data, at <http://pubs.ext.vt.edu/3101/3101-1523/3101-1523.html>.

2010 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 21 contain blanching data for the extra large kernels (ELK) and medium size kernels. Statistical analyses 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 2010.

Genotype Number	Variety or Line	Pedigree
1	NC-V 11	Florigiant / NC 5 // Florigiant / Valencia
2	Gregory	NC 7 / NC 9
3	Perry	NC 7 / Florigiant // N90021
4	CHAMPS	VA 8911215 / VA-C 92R
5	Phillips	N90014E / N91024
6	Bailey	NC 12C*2 / N96076L
7	Georgia 08V	C99R / GA Hi-O/L
8	Florida Fancy	F87 x 8-2-1 / F 85410 / 93Q10
9	Sugg	Gregory // X98006 (F1)
10	VA 98R	VA 81B x VA 780839P
11	Titan	VA 8911215 / SHOSH
12	VT 004152	N91054E / VA 901082
13	VT 003200	N93008 / VT 940419P
14	VT 024024	NC 12C / Wilson
15	VT 024051	VA 98R // X98011 (F1), Perry / N96076L
16	N04074FCT	N97070 / N96029
17	N05006	NC-V 11 // Ga. Green / NC-V 11
18	N05008	Georgia Green // X97509 (F1), NC-V 11 / Georgia Green
19	N05024J	N98002 / N97140C
20	N07033olSm	N01015T / N00098ol (Gre)
21	N07036olSmT	N01015T / N00098ol (Gre)
22	N07037olSm	N01015T / N00098ol (Gre)
23	N08069olJCT	N03079FT*2 / N02059ol (Per)
24	N08070olJC	N03079FT*2 / N02059ol (Per)
25	N08071olJC	N03079FT*2 / N02059ol (Per)
26	N08072olCT	N03079FT*2 / N02059ol (Per)
27	N08073olCT	N03079FT*2 / N02059ol (Per)
28	N08074olC	N03079FT*2 / N02059ol (Per)
29	N08075olCT	N03079FT*2 / N02059ol (Per)
30	N08081olJC	Bailey*2 / Brantley
31	N08082olJCT	Bailey*2 / Brantley
32	N08085olJCT	Bailey*2 / Brantley
33	N08087olJCT	Bailey*2 / Brantley
34	SPT 06-06	DP-1 (UF97318) // C-99R (UF94320) / GP-NC WS 12
35	SPT 06-07	DP-1 (UF97318) // C-99R (UF94320) / GP-NC WS 12
36	97x22-HO2-2-B2-1-1-2B	

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 2010 PVQE locations and planting dates in Tables 22 through 35. Table 33 shows the content of the fatty acids averaged across all locations in 2010. Two- and three-year averages are included in Tables 34 and 35. Calcium content (ppm) of seeds of each genotype was determined and presented in Tables 36 to 38 for each location and planting dates.

Blanching Results

Table 2. Laboratory sample blanching of Extra Large Kernels (ELK) from Tidewater AREC (Suffolk) VA, Planting Date 1, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.63	4.87	0.77	2.70 a-d ¹	89.20 a	0.00 b	6.20 f-h
Gregory	5.50	4.80	0.70	3.17 a-d	62.90 c	0.00 b	7.03 d-h
Perry	5.53	4.87	0.67	3.23 a-d	90.53 a	0.00 b	3.93 h
CHAMPS	5.60	4.80	0.80	2.50 b-d	89.17 a	0.00 b	6.53 e-h
Phillips	5.60	4.83	0.77	2.77 a-d	90.90 a	0.00 b	4.30 gh
Bailey	5.50	4.77	0.73	2.33 cd	90.70 a	0.00 b	4.60 gh
Georgia 08V	5.57	4.80	0.77	5.87 a	84.53 a	0.00 b	8.17 d-h
Florida Fancy	5.57	4.77	0.80	4.57 a-d	89.00 a	0.00 b	4.33 gh
Sugg	5.53	4.77	0.77	3.33 a-d	86.00 a	0.00 b	9.00 c-h
VA 98R	5.53	4.73	0.80	3.70 a-d	86.27 a	0.00 b	8.00 d-h
Titan	5.50	4.80	0.70	3.70 a-d	84.73 a	0.00 b	9.40 c-h
VT 004152	5.53	4.73	0.80	2.50 b-d	90.40 a	0.00 b	4.80 gh
VT 003200	5.57	4.87	0.70	5.47 a-c	76.83 a-c	0.00 b	16.03 bc
VT 024024	5.67	4.83	0.83	4.43 a-d	81.60 ab	0.00 b	12.47 b-f
VT 024051	5.67	4.80	0.87	2.30 cd	87.60 a	0.00 b	8.20 d-h
N04074FCT	5.57	4.87	0.70	2.27 cd	89.57 a	0.00 b	6.30 f-h
N05006	5.57	4.83	0.73	2.40 b-d	91.10 a	0.00 b	4.70 gh
N05008	5.67	4.90	0.77	1.90 d	87.20 a	0.00 b	8.87 c-h
N05024J	5.57	4.80	0.77	4.67 a-d	85.60 a	0.00 b	7.57 d-h
N07033olSm	5.57	4.73	0.83	2.53 b-d	87.70 a	0.00 b	8.40 d-h
N07036olSmT	5.53	4.80	0.73	2.67 a-d	86.43 a	0.33 a	9.20 c-h
N07037olSm	5.57	4.70	0.87	3.57 a-d	86.97 a	0.00 b	8.17 d-h
N08069olJCT	5.53	4.77	0.77	5.17 a-c	86.27 a	0.00 b	6.37 e-h
N08070olJC	5.53	4.77	1.23	4.27 a-d	80.00 ab	0.00 b	13.73 b-e
N08071olJC	5.60	4.73	0.87	5.37 a-c	69.07 bc	0.00 b	23.50 a
N08072olICT	5.60	4.77	0.83	2.97 a-d	88.30 a	0.00 b	7.13 d-h
N08073olICT	5.60	4.70	0.90	5.57 ab	86.70 a	0.00 b	6.00 f-h
N08074olIC	5.53	4.77	0.77	3.53 a-d	89.03 a	0.00 b	6.47 e-h
N08075olICT	5.67	4.83	0.83	2.60 b-d	88.10 a	0.00 b	7.37 d-h
N08081olJC	5.60	4.80	0.80	5.33 a-c	85.97 a	0.00 b	7.27 d-h
N08082olJCT	5.60	4.77	0.83	3.17 a-d	87.73 a	0.00 b	7.47 d-h
N08085olJCT	5.53	4.77	0.77	5.20 a-c	79.27 ab	0.00 b	14.33 b-d
N08087olJCT	5.53	4.80	0.63	4.73 a-d	90.07 a	0.00 b	5.67 f-h
SPT 06-06	5.53	4.87	0.67	3.80 a-d	77.53 a-c	0.00 b	17.03 ab
SPT 06-07	5.57	4.80	0.77	4.53 a-d	87.23 a	0.00 b	6.00 f-h
97x22-HO2-2-B2-1-1-2B	5.57	4.80	0.77	2.30 cd	85.00 a	0.00 b	11.40 b-g
Mean	5.57	4.79	0.79	3.64	85.42	0.01	4.50

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, Planting Date 2, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.57	4.83	0.73	1.57 e ¹	93.30 ab	0.00 b	3.53 h-j
Gregory	5.50	4.80	0.70	1.83 de	91.97 a-c	0.00 b	4.13 g-j
Perry	5.57	4.87	0.70	3.60 c-e	91.70 a-d	0.00 b	3.30 ij
CHAMPS	5.50	4.70	0.80	1.97 de	92.73 a-c	0.00 b	3.43 h-j
Phillips	5.43	4.83	0.60	2.13 de	90.17 a-g	0.00 b	6.13 f-j
Bailey	5.40	4.67	0.73	3.13 c-e	90.10 a-g	0.00 b	5.40 f-j
Georgia 08V	5.50	4.80	0.70	6.33 ab	86.77 c-j	0.00 b	5.83 f-j
Florida Fancy	5.67	4.83	0.83	2.93 c-e	93.63 a	0.00 b	1.73 j
Sugg	5.57	4.80	0.73	2.87 c-e	88.10 a-h	0.00 b	7.47 e-i
VA 98R	5.57	4.77	0.80	3.47 c-e	85.03 e-k	0.00 b	9.67 c-g
Titan	5.60	4.77	0.83	2.67 c-e	88.00 a-i	0.00 b	7.73 e-i
VT 004152	5.57	4.83	0.73	1.50 e	90.97 a-e	0.00 b	6.20 f-j
VT 003200	5.60	4.73	0.87	3.73 b-e	89.77 a-g	0.00 b	4.97 f-j
VT 024024	5.53	4.73	0.80	4.33 b-d	81.73 i-l	0.00 b	12.53 b-e
VT 024051	5.60	4.77	0.83	2.77 c-e	82.77 h-l	0.00 b	13.53 a-d
N04074FCT	5.53	4.80	0.73	2.53 c-e	87.20 b-j	0.00 b	9.20 c-g
N05006	5.60	4.77	0.83	2.30 de	92.07 a-c	0.00 b	4.20 g-j
N05008	5.63	4.83	0.80	2.13 de	89.80 a-g	0.00 b	6.53 f-j
N05024J	5.63	4.70	0.93	2.83 c-e	90.90 a-f	0.00 b	4.80 f-j
N07033olSm	5.63	4.87	0.77	1.93 de	90.73 a-f	0.00 b	5.83 f-j
N07036olSmT	5.53	4.73	0.80	2.83 c-e	87.33 a-j	0.10 a	8.00 d-i
N07037olSm	5.57	4.77	0.80	3.40 c-e	86.60 c-j	0.00 b	8.23 d-i
N08069olJCT	5.53	4.80	0.73	3.83 b-e	84.73 e-k	0.00 b	9.87 c-f
N08070olJC	5.53	4.73	0.83	5.03 a-c	79.47 k-m	0.00 b	14.57 a-c
N08071olJC	5.47	4.77	0.70	5.10 a-c	74.63 m	0.00 b	18.87 a
N08072olICT	5.40	4.77	0.60	2.87 c-e	86.60 c-j	0.00 b	9.00 c-h
N08073olICT	5.57	4.80	0.77	5.03 a-c	86.57 c-j	0.00 b	7.53 e-i
N08074olIC	5.53	4.80	0.73	3.70 b-e	87.97 a-i	0.00 b	7.03 e-j
N08075olICT	5.57	4.83	0.73	4.17 b-e	84.63 f-k	0.00 b	10.27 c-f
N08081olJC	5.57	4.87	0.70	3.87 b-e	87.90 a-i	0.00 b	5.80 f-j
N08082olJCT	5.57	4.80	0.77	2.63 c-e	89.73 a-g	0.00 b	6.37 f-j
N08085olJCT	5.53	4.83	0.70	2.87 c-e	77.30 lm	0.00 b	18.00 ab
N08087olJCT	5.57	4.80	0.77	2.07 de	88.43 a-h	0.00 b	7.63 e-i
SPT 06-06	5.57	4.87	0.70	7.53 a	83.93 g-k	0.00 b	7.20 e-j
SPT 06-07	5.57	4.80	0.77	7.10 a	81.20 j-l	0.00 b	10.07 c-f
97x22-HO2-2-B2-1-1-2B	5.43	4.77	0.67	3.37 c-e	85.47 d-k	0.00 b	9.90 c-f
Mean	5.55	4.79	0.76	3.39	87.22	0.00	7.90

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) from Tidewater AREC (Suffolk) VA, Planting Date 3, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.57	4.73	0.83	2.43 f-i	89.60 a-e	0.00 a	6.23 f-k
Gregory	5.50	4.77	0.73	1.73 i	91.80 ab	0.00 a	4.83 i-k
Perry	5.47	4.80	0.67	3.57 d-i	89.37 a-e	0.00 a	5.53 g-k
CHAMPS	5.40	4.67	0.73	2.90 g-i	90.73 a-c	0.00 a	4.47 i-k
Phillips	5.43	4.83	0.60	2.10 hi	92.37 a	0.00 a	3.50 k
Bailey	5.47	4.73	0.73	3.93 c-i	88.87 a-f	0.00 a	5.60 g-k
Georgia 08V	5.33	4.67	0.67	4.40 c-i	83.20 f-j	0.00 a	10.73 a-f
Florida Fancy	5.47	4.63	0.83	4.67 c-h	89.83 a-e	0.00 a	3.93 jk
Sugg	5.40	4.73	0.67	5.10 c-f	86.17 b-g	0.00 a	7.30 e-k
VA 98R	5.40	4.73	0.67	2.77 f-i	84.03 e-i	0.00 a	11.57 a-e
Titan	5.33	4.63	0.70	4.10 c-i	83.93 e-i	0.00 a	10.37 b-g
VT 004152	5.37	4.70	0.67	3.23 e-i	86.50 a-f	0.00 a	8.87 e-j
VT 003200	5.37	4.73	0.63	6.23 cd	84.30 d-h	0.00 a	8.20 e-k
VT 024024	5.37	4.73	0.63	6.63 bc	76.73 k	0.00 a	15.37 ab
VT 024051	5.33	4.77	0.57	4.57 c-h	79.73 h-k	0.00 a	14.33 a-c
N04074FCT	5.37	4.63	0.73	3.07 e-i	88.57 a-f	0.00 a	6.63 e-k
N05006	5.40	4.70	0.70	2.50 f-i	90.40 a-d	0.00 a	5.23 h-k
N05008	5.40	4.77	0.87	2.23 g-i	89.93 a-e	0.00 a	5.97 f-k
N05024J	5.43	4.73	0.70	3.50 d-i	89.80 a-e	0.00 a	5.03 h-k
N07033olSm	5.40	4.83	0.57	5.03 c-g	84.10 e-i	0.00 a	9.20 d-i
N07036olSmT	5.33	4.67	0.67	4.77 c-h	87.53 a-f	0.00 a	6.00 f-k
N07037olSm	5.43	4.80	0.63	3.77 d-i	89.73 a-e	0.00 a	5.07 h-k
N08069olJCT	5.47	4.73	0.73	4.13 c-i	80.20 g-k	0.00 a	14.17 a-d
N08070olJC	5.37	4.70	0.67	2.97 f-i	84.13 e-i	0.00 a	11.37 a-e
N08071olJC	5.33	4.70	0.63	5.80 c-e	76.90 k	0.00 a	15.63 a
N08072olICT	5.40	4.67	0.73	4.57 c-h	88.17 a-f	0.00 a	5.53 g-k
N08073olICT	5.37	4.80	0.57	3.83 c-i	87.60 a-f	0.00 a	6.87 e-k
N08074olIC	5.40	4.83	0.57	3.00 e-i	89.13 a-f	0.00 a	6.30 f-k
N08075olICT	5.33	4.80	0.53	2.87 f-i	91.43 ab	0.00 a	4.03 jk
N08081olJC	5.43	4.70	0.73	2.90 f-i	86.73 a-f	0.00 a	8.93 e-j
N08082olJCT	5.43	4.80	0.63	3.83 c-i	87.57 a-f	0.00 a	7.27 e-k
N08085olJCT	5.53	4.67	0.77	3.70 d-i	85.03 c-h	0.00 a	9.47 c-i
N08087olJCT	5.37	4.70	0.67	2.27 g-i	85.73 b-h	0.00 a	9.90 c-h
SPT 06-06	5.50	4.80	0.70	9.17 ab	78.10 i-k	0.00 a	11.43 a-e
SPT 06-07	5.43	4.83	0.60	10.77 a	77.73 jk	0.00 a	9.87 c-h
97x22-HO2-2-B2-1-1-2B	5.33	4.73	0.60	6.27 cd	78.07 i-k	0.00 a	14.30 a-c
Mean	5.41	4.74	0.68	4.15	85.94	0.00	8.31

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). Averages of planting dates from Tidewater AREC (Suffolk), VA, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.59	4.81	0.78	2.23 kl ¹	90.70 a-c	0.00 b	5.32 i-l
Gregory	5.50	4.79	0.71	2.24 kl	82.22 f-i	0.00 b	5.33 i-l
Perry	5.52	4.84	0.68	3.47 e-l	90.53 a-c	0.00 b	4.26 kl
CHAMPS	5.50	4.72	0.78	2.46 i-l	90.88 ab	0.00 b	4.81 j-l
Phillips	5.49	4.83	0.66	2.33 j-l	91.14 a	0.00 b	4.64 j-l
Bailey	5.46	4.72	0.73	3.13 g-l	89.89 a-c	0.00 b	5.20 i-l
Georgia 08V	5.47	4.76	0.71	5.53 bc	84.83 c-i	0.00 b	8.24 f-j
Florida Fancy	5.57	4.74	0.82	4.06 d-i	90.82 ab	0.00 b	3.33 l
Sugg	5.50	4.77	0.72	3.77 d-l	86.76 a-h	0.00 b	7.92 g-k
VA 98R	5.50	4.74	0.76	3.31 g-l	85.11 b-i	0.00 b	9.74 d-g
Titan	5.48	4.73	0.74	3.49 e-l	85.56 a-i	0.00 b	9.17 e-h
VT 004152	5.49	4.76	0.73	2.41 i-l	89.29 a-d	0.00 b	6.62 g-l
VT 003200	5.51	4.78	0.73	5.14 b-e	83.63 d-i	0.00 b	9.73 d-g
VT 024024	5.52	4.77	0.76	5.13 b-f	80.02 i	0.00 b	13.46 bc
VT 024051	5.53	4.78	0.76	3.21 g-l	83.37 d-i	0.00 b	12.02 b-e
N04074FCT	5.49	4.77	0.72	2.62 i-l	88.44 a-e	0.00 b	7.38 g-k
N05006	5.52	4.77	0.76	2.40 i-l	91.19 a	0.00 b	4.71 j-l
N05008	5.57	4.83	0.81	2.09 l	88.98 a-d	0.00 b	7.12 g-k
N05024J	5.54	4.74	0.80	3.67 e-l	88.77 a-e	0.00 b	5.80 h-l
N07033olSm	5.53	4.81	0.72	3.17 g-l	87.51 a-g	0.00 b	7.81 g-k
N07036olSmT	5.47	4.73	0.73	3.42 f-l	87.10 a-h	0.14 a	7.73 g-k
N07037olSm	5.52	4.76	0.77	3.58 e-l	87.77 a-g	0.00 b	7.16 g-k
N08069olJCT	5.51	4.77	0.74	4.38 c-h	83.73 d-i	0.00 b	10.13 c-g
N08070olJC	5.48	4.73	0.91	4.09 d-i	81.20 hi	0.00 b	13.22 b-d
N08071olJC	5.47	4.73	0.73	5.42 b-d	73.53 j	0.00 b	19.33 a
N08072olCT	5.47	4.73	0.72	3.47 e-l	87.69 a-g	0.00 b	7.22 g-k
N08073olCT	5.51	4.77	0.74	4.81 c-g	86.96 a-h	0.00 b	6.80 g-l
N08074olC	5.49	4.80	0.69	3.41 g-l	88.71 a-e	0.00 b	6.60 g-l
N08075olCT	5.52	4.82	0.70	3.21 g-l	88.06 a-f	0.00 b	7.22 g-k
N08081olJC	5.53	4.79	0.74	4.03 d-j	86.87 a-h	0.00 b	7.33 g-k
N08082olJCT	5.53	4.79	0.74	3.21 g-l	88.34 a-e	0.00 b	7.03 g-k
N08085olJCT	5.53	4.76	0.74	3.92 c-k	80.53 i	0.00 b	13.93 b
N08087olJCT	5.49	4.77	0.69	3.02 h-l	88.08 a-f	0.00 b	7.73 g-k
SPT 06-06	5.53	4.84	0.69	6.83 ab	79.86 i	0.00 b	11.89 b-f
SPT 06-07	5.52	4.81	0.71	7.47 a	82.06 g-i	0.00 b	8.64 e-i
97x22-HO2-2-B2-1-1-2B	5.44	4.77	0.68	3.98 c-j	82.84 e-i	0.00 b	11.87 b-f
Mean	5.51	4.77	0.74	3.73	86.19	0.00	8.24

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, Planting Date 1, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.33	4.73	0.60	2.47 de ¹	87.93 a-f	0.00 a	7.77 j-n
Gregory	5.30	4.70	0.60	2.00 de	91.00 a	0.00 a	5.27 n
Perry	5.23	4.73	0.50	2.40 de	90.10 ab	0.00 a	5.60 n
CHAMPS	5.30	4.70	0.60	1.73 de	87.43 a-f	0.00 a	9.23 g-n
Phillips	5.27	4.80	1.40	3.13 de	87.60 a-f	0.00 a	7.93 j-n
Bailey	5.30	4.73	0.57	4.03 c-e	86.50 a-g	0.00 a	7.80 j-n
Georgia 08V	5.33	4.67	0.67	7.57 b	80.77 g-j	0.00 a	10.20 g-n
Florida Fancy	5.27	4.70	0.57	4.50 cd	88.30 a-e	0.00 a	5.87 mn
Sugg	5.27	4.70	0.57	2.33 de	81.97 f-j	0.00 a	14.00 b-h
VA 98R	5.33	4.73	0.60	2.03 de	84.33 b-i	0.00 a	12.17 e-k
Titan	5.25	4.60	0.65	3.15 de	83.15 d-j	0.00 a	12.00 e-l
VT 004152	5.33	4.63	0.70	4.00 c-e	83.47 c-j	0.00 a	11.03 f-m
VT 003200	5.33	4.73	0.60	2.93 de	86.03 a-h	0.00 a	9.37 g-n
VT 024024	5.30	4.60	0.70	6.03 bc	74.00 lm	0.00 a	18.93 ab
VT 024051	5.33	4.73	0.60	2.20 de	77.73 j-l	0.00 a	18.23 a-d
N04074FCT	5.37	4.73	0.63	2.73 de	79.93 h-l	0.00 a	15.60 a-f
N05006	5.33	4.73	0.60	2.70 de	81.77 f-j	0.00 a	13.70 b-h
N05008	5.43	4.73	0.70	1.37 e	83.60 c-j	0.00 a	13.50 c-i
N05024J	4.70	4.70	0.67	3.60 c-e	81.87 f-j	0.00 a	13.00 d-j
N07033olSm	5.33	4.57	0.77	3.10 de	85.73 a-h	0.00 a	9.30 g-n
N07036olSmT	5.30	4.67	0.63	4.10 c-e	82.50 e-j	0.00 a	11.80 e-l
N07037olSm	5.30	4.67	0.63	4.17 c-e	86.20 a-g	0.00 a	8.27 i-n
N08069olJCT	5.33	4.67	0.67	2.10 de	79.30 i-l	0.00 a	16.93 a-e
N08070olJC	5.30	4.70	0.60	2.57 de	77.80 k-l	0.00 a	18.10 a-d
N08071olJC	5.27	4.67	0.60	3.33 c-e	74.47 k-m	0.00 a	20.43 a
N08072olICT	5.37	4.70	0.67	3.37 c-e	85.37 a-i	0.00 a	9.27 g-n
N08073olICT	5.40	4.67	0.73	1.63 e	89.17 a-d	0.00 a	7.60 k-n
N08074olIC	5.37	4.77	0.60	1.83 de	89.60 a-c	0.00 a	6.63 l-n
N08075olICT	5.33	4.67	0.67	2.57 de	87.07 a-f	0.00 a	8.70 h-n
N08081olJC	5.30	4.67	0.63	1.80 de	79.93 h-l	0.00 a	16.63 a-e
N08082olJCT	5.37	4.60	0.67	3.70 c-e	84.13 b-i	0.00 a	10.43 f-n
N08085olJCT	5.23	4.73	0.50	1.83 de	84.33 b-i	0.00 a	12.07 e-k
N08087olJCT	5.30	4.60	0.70	3.53 c-e	84.07 b-i	0.00 a	10.63 f-n
SPT 06-06	5.40	4.80	0.60	12.00 a	68.90 m	0.00 a	18.40 a-c
SPT 06-07	5.37	4.77	0.60	11.80 a	70.40 m	0.00 a	16.60 a-e
97x22-HO2-2-B2-1-1-2B	5.20	4.70	0.50	3.50 c-e	80.30 g-k	0.00 a	14.50 b-g
Mean	5.30	4.69	0.65	3.39	83.23	0.00	11.75

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) from Martin County, NC, Planting Date 2, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.33	4.73	0.60	2.87 h-j ¹	89.17 a-c	0.00 a	6.17 d-g
Gregory	5.47	4.73	0.73	4.87 d-j	87.17 a-g	0.00 a	6.17 d-g
Perry	5.27	4.73	0.53	2.87 h-j	92.67 a	0.00 a	2.73 g
CHAMPS	5.33	4.73	0.60	2.37 ij	90.03 ab	0.00 a	5.87 d-g
Phillips	5.33	4.77	0.57	4.27 e-j	87.40 a-g	0.00 a	6.50 c-g
Bailey	5.50	4.77	0.73	4.37 e-j	88.03 a-f	0.00 a	5.97 d-g
Georgia 08V	5.43	4.77	0.67	10.10 b	76.43 j	0.00 a	11.90 ab
Florida Fancy	5.53	4.73	0.80	4.53 d-j	87.43 a-f	0.00 a	6.23 d-g
Sugg	5.33	4.80	0.53	1.67 j	88.73 a-d	0.00 a	7.60 b-f
VA 98R	5.33	4.70	0.63	3.50 g-j	87.10 a-g	0.00 a	7.43 b-g
Titan	--	--	--	--	--	--	--
VT 004152	5.47	4.80	0.67	4.53 d-j	87.77 a-f	0.00 a	6.00 d-g
VT 003200	5.43	4.73	0.70	5.47 d-i	83.43 c-i	0.00 a	9.43 a-f
VT 024024	5.47	4.83	0.63	7.83 b-d	77.30 ij	0.00 a	13.03 a
VT 024051	5.30	4.67	1.10	5.53 d-i	84.10 b-h	0.00 a	8.50 a-f
N04074FCT	5.50	4.83	0.67	2.43 ij	87.97 a-f	0.00 a	7.83 b-f
N05006	5.30	4.70	0.60	3.95 f-j	86.50 a-h	0.00 a	7.90 b-f
N05008	5.43	4.87	0.57	3.87 f-j	84.60 b-h	0.00 a	9.70 a-e
N05024J	5.43	4.77	0.67	3.93 f-j	86.80 a-g	0.00 a	7.53 b-f
N07033olSm	5.37	4.63	0.73	4.27 e-j	87.37 a-g	0.00 a	7.07 c-g
N07036olSmT	5.33	4.77	0.57	6.80 b-g	81.93 f-j	0.00 a	9.60 a-f
N07037olSm	5.45	4.65	0.80	4.75 d-j	88.50 a-e	0.00 a	5.05 e-g
N08069olJCT	5.40	4.73	0.67	7.50 b-e	82.47 d-j	0.00 a	7.77 b-f
N08070olJC	5.37	4.67	0.70	6.20 c-h	81.90 f-j	0.00 a	10.27 a-d
N08071olJC	5.23	4.73	0.50	7.07 b-f	81.10 g-j	0.00 a	10.23 a-d
N08072olICT	5.33	4.73	0.60	3.93 f-j	89.27 a-c	0.00 a	5.07 e-g
N08073olICT	5.60	4.70	0.75	9.10 bc	80.45 h-j	0.00 a	8.65 a-f
N08074olIC	5.27	4.73	0.53	5.20 d-i	88.07 a-f	0.00 a	4.93 e-g
N08075olICT	5.40	4.77	0.63	4.83 d-j	88.20 a-f	0.00 a	4.87 fg
N08081olJC	5.23	4.70	0.53	3.57 g-j	87.20 a-g	0.00 a	7.63 b0-f
N08082olJCT	5.30	4.75	0.55	5.15 d-i	86.35 a-h	0.00 a	6.80 c-g
N08085olJCT	5.27	4.70	0.57	4.20 e-j	86.20 b-h	0.00 a	8.10 b-f
N08087olJCT	5.20	4.67	0.53	5.03 d-i	85.50 b-h	0.00 a	7.83 b-f
SPT 06-06	5.27	4.77	0.50	18.93 a	69.17 k	0.00 a	10.17 a-d
SPT 06-07	5.37	4.83	0.53	17.90 a	68.27 k	0.00 a	12.13 ab
97x22-HO2-2-B2-1-1-2B	5.23	4.70	0.53	4.53 d-j	82.37 e-j	0.00 a	11.27 a-c
Mean	5.36	4.74	0.63	5.65	84.74	0.00	7.86

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 of planting dates from Martin County, NC, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.33	4.73	0.60	2.67 ef ¹	88.55 a-e	0.00 a	6.97 j-l
Gregory	5.38	4.72	0.67	3.43 d-f	89.08 ab	0.00 a	5.72 kl
Perry	5.25	4.73	0.52	2.63 ef	91.38 a	0.00 a	4.17 l
CHAMPS	5.32	4.72	0.60	2.05 f	88.73 a-d	0.00 a	7.55 g-l
Phillips	5.30	4.78	0.98	3.70 d-f	87.50 a-g	0.00 a	7.22 h-l
Bailey	5.40	4.75	0.65	4.20 d-f	87.27 a-g	0.00 a	6.88 j-l
Georgia 08V	5.38	4.72	0.67	8.83 b	78.60 m-o	0.00 a	11.05 b-j
Florida Fancy	5.40	4.72	0.68	4.52 c-f	87.87 a-f	0.00 a	6.05 kl
Sugg	5.30	4.75	0.55	2.00 f	85.35 b-k	0.00 a	10.80 b-j
VA 98R	5.33	4.72	0.62	2.77 ef	85.72 b-i	0.00 a	9.80 c-k
Titan	5.25	4.60	0.65	3.15 d-f	83.15 g-m	0.00 a	12.00 a-g
VT 004152	5.40	4.72	0.68	4.27 d-f	85.62 b-j	0.00 a	8.52 e-l
VT 003200	5.38	4.73	0.65	4.20 d-f	84.73 b-k	0.00 a	9.40 d-l
VT 024024	5.38	4.72	0.67	6.93 bc	75.65 o	0.00 a	15.98 a
VT 024051	5.32	4.70	0.85	3.87 d-f	80.92 j-n	0.00 a	13.37 a-d
N04074FCT	5.43	4.78	0.65	2.58 ef	83.95 e-l	0.00 a	11.72 a-h
N05006	5.32	4.72	0.60	3.20 d-f	83.66 f-l	0.00 a	11.38 a-j
N05008	5.43	4.80	0.63	2.62 ef	84.10 d-l	0.00 a	11.60 a-i
N05024J	5.07	4.73	0.67	3.77 d-f	84.33 c-l	0.00 a	10.27 c-k
N07033olSm	5.35	4.60	0.75	3.68 d-f	86.55 b-h	0.00 a	8.18 f-l
N07036olSmT	5.32	4.72	0.60	5.45 cd	82.22 h-n	0.00 a	10.70 c-j
N07037olSm	5.36	4.66	0.70	4.40 c-f	87.12 a-g	0.00 a	6.98 i-l
N08069olJCT	5.37	4.70	0.67	4.80 c-e	80.88 k-n	0.00 a	12.35 a-f
N08070olJC	5.33	4.68	0.65	4.38 c-f	79.85 l-o	0.00 a	14.18 a-c
N08071olJC	5.25	4.70	0.55	5.20 c-e	77.78 no	0.00 a	15.33 ab
N08072olICT	5.35	4.72	0.63	3.65 d-f	87.32 a-g	0.00 a	7.17 h-l
N08073olICT	5.48	4.68	0.74	4.62 c-f	85.68 b-i	0.00 a	8.02 f-l
N08074olC	5.32	4.75	0.57	3.52 d-f	88.83 a-c	0.00 a	5.78 kl
N08075olICT	5.37	4.72	0.65	3.70 d-f	87.63 a-g	0.00 a	6.78 j-l
N08081olJC	5.27	4.68	0.58	2.68 ef	83.57 f-l	0.00 a	12.13 a-g
N08082olJCT	5.28	4.66	0.62	4.28 d-f	85.02 b-k	0.00 a	8.98 d-k
N08085olJCT	5.25	4.72	0.53	3.02 d-f	85.27 b-k	0.00 a	10.08 c-k
N08087olJCT	5.25	4.63	0.62	4.28 d-f	84.78 b-k	0.00 a	9.23 d-k
SPT 06-06	5.30	4.78	0.53	17.20 a	69.10 p	0.00 a	12.23 a-f
SPT 06-07	5.37	4.80	0.57	14.85 a	69.33 p	0.00 a	14.37 a-c
97x22-HO2-2-B2-1-1-2B	5.22	4.70	0.52	4.02 d-f	81.33 i-n	0.00 a	12.88 a-e
Mean	5.33	4.72	0.64	4.50	83.97	0.00	9.84

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, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.49	4.78	0.71	2.41 jk ¹	89.84 ab	0.00 b	5.98 k-m
Gregory	5.45	4.76	0.69	2.72 h-k	84.97 d-i	0.00 b	5.49 k-m
Perry	5.41	4.80	0.61	3.13 f-k	90.87 a	0.00 b	4.22 m
CHAMPS	5.43	4.72	0.71	2.29 k	90.02 ab	0.00 b	5.91 k-m
Phillips	5.41	4.81	0.79	2.88 h-k	89.69 a-c	0.00 b	5.67 k-m
Bailey	5.43	4.73	0.70	3.56 e-k	88.84 a-d	0.00 b	5.87 k-m
Georgia 08V	5.43	4.74	0.69	6.85 b	82.34 h-k	0.00 b	9.37 f-i
Florida Fancy	5.50	4.73	0.77	4.24 c-h	89.64 a-c	0.00 b	4.42 lm
Sugg	5.42	4.76	0.65	3.06 g-k	86.19 b-i	0.00 b	9.07 g-j
VA 98R	5.43	4.73	0.70	3.09 g-k	85.35 d-i	0.00 b	9.77 d-i
Titan	5.44	4.71	0.73	3.43 e-k	85.12 d-i	0.00 b	9.68 d-i
VT 004152	5.45	4.74	0.71	3.15 e-k	87.82 a-e	0.00 b	7.38 i-k
VT 003200	5.46	4.76	0.70	4.77 c-e	84.07 e-j	0.00 b	9.60 e-i
VT 024024	5.47	4.75	0.72	5.85 bc	78.27 k-m	0.00 b	14.47 b
VT 024051	5.45	4.75	0.79	3.47 e-k	82.39 h-k	0.00 b	12.56 b-d
N04074FCT	5.47	4.77	0.69	2.61 i-k	86.65 a-g	0.00 b	9.11 g-j
N05006	5.45	4.75	0.70	2.69 h-k	88.50 a-d	0.00 b	7.09 i-m
N05008	5.51	4.82	0.74	2.30 k	87.03 a-e	0.00 b	8.91 h-j
N05024J	5.35	4.74	0.75	3.71 e-k	86.99 a-e	0.00 b	7.59 i-k
N07033olSm	5.46	4.73	0.73	3.73 e-k	87.13 a-e	0.00 b	7.96 i-k
N07036olSmT	5.41	4.73	0.68	4.23 d-h	85.15 d-i	0.09 a	8.92 h-j
N07037olSm	5.46	4.72	0.74	3.87 d-k	87.54 a-e	0.00 b	7.09 i-m
N08069olJCT	5.45	4.74	0.71	4.55 c-g	82.59 f-j	0.00 b	11.02 c-h
N08070olJC	5.42	4.71	0.81	4.21 d-i	80.66 j-l	0.00 b	13.61 bc
N08071olJC	5.38	4.72	0.66	5.33 b-d	75.23 m	0.00 b	17.73 a
N08072olICT	5.42	4.73	0.69	3.54 e-k	87.54 a-e	0.00 b	7.20 i-l
N08073olICT	5.50	4.74	0.74	4.74 c-f	86.50 b-h	0.00 b	7.24 i-l
N08074olIC	5.42	4.78	0.64	3.45 e-k	88.76 a-d	0.00 b	6.27 j-m
N08075olICT	5.46	4.78	0.68	3.41 e-k	87.89 a-e	0.00 b	7.05 i-m
N08081olJC	5.43	4.75	0.68	3.49 e-k	85.55 c-i	0.00 b	9.25 g-i
N08082olJCT	5.44	4.74	0.70	3.59 e-k	87.16 a-e	0.00 b	7.73 i-k
N08085olJCT	5.42	4.74	0.66	3.56 e-k	82.43 g-k	0.00 b	12.39 b-e
N08087olJCT	5.39	4.71	0.66	3.53 e-k	86.76 a-f	0.00 b	8.33 h-k
SPT 06-06	5.46	4.82	0.64	10.02 a	76.55 lm	0.00 b	11.99 c-g
SPT 06-07	5.46	4.81	0.65	10.42 a	76.97 lm	0.00 b	10.93 c-h
97x22-HO2-2-B2-1-1-2B	5.35	4.74	0.61	3.99 d-j	82.24 i-k	0.00 b	12.27 b-f
Mean	5.44	4.75	0.70	4.03	85.33	0.00	8.86

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. Two-year averages (2009- 2010).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.68	4.83	0.84	6.36 de ¹	85.26 a-c	0.00 a	6.61 c-f
Gregory	5.64	4.83	0.82	4.62 e	85.24 a-c	0.00 a	5.10 e-g
Perry	5.63	4.84	0.80	7.66 c-e	86.58 a	0.00 a	3.95 g
CHAMPS	5.65	4.83	0.82	5.13 e	86.55 a	0.00 a	6.60 c-f
Phillips	5.63	4.89	0.86	7.77 c-e	85.57 a-c	0.00 a	4.75 fg
Bailey	5.67	4.84	0.82	5.77 de	86.51 ab	0.00 a	5.91 d-g
Georgia 08V	5.64	4.82	0.82	14.98 a	76.02 f	0.00 a	7.27 c-e
Florida Fancy	5.66	4.80	0.86	11.46 b	83.08 a-d	0.00 a	3.67 g
Sugg	5.62	4.81	0.81	5.73 de	84.39 a-c	0.00 a	7.78 b-d
VA 98R	5.67	4.81	0.83	6.55 de	83.38 a-d	0.00 a	8.08 b-d
VT 004152	5.63	4.84	0.79	5.75 de	84.35 a-c	0.00 a	8.14 b-d
VT 003200	5.62	4.80	0.81	10.74 bc	79.12 d-f	0.00 a	8.28 bc
VT 024024	5.66	4.83	0.82	8.92 b-d	77.48 ef	0.00 a	12.05 a
VT 024051	5.64	4.78	0.91	5.25 e	82.06 b-d	0.00 a	11.08 a
N04074FCT	5.65	4.86	0.81	4.69 e	83.37 a-d	0.00 a	10.01 ab
N05006	5.67	4.86	0.78	5.09 e	85.16 a-c	0.00 a	8.01 b-d
N05008	5.69	4.87	0.85	5.34 e	81.77 c-e	0.00 a	11.22 a
N05024J	5.58	4.82	0.84	7.69 c-e	84.19 a-c	0.00 a	6.27 e-g
Mean	5.65	4.83	0.83	7.19	83.34	0.00	7.49

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 Extra Large Kernels (ELK). Averages from Tidewater AREC (Suffolk) VA, and Martin County, NC. Three-year averages (2008- 2010).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.74	4.84	0.90	6.72 b-e ¹	85.09 a-d	0.00 b	6.28 b-e
Gregory	5.73	4.85	0.88	4.55 e	85.73 a-c	0.02 b	4.97 ef
Perry	5.70	4.87	0.83	7.93 bc	86.30 ab	0.00 b	3.83 f
CHAMPS	5.74	4.85	0.89	5.02 de	86.90 a	0.00 b	6.26 b-e
Phillips	5.70	4.91	0.89	7.56 b-d	85.78 a-c	0.00 b	4.54 ef
Bailey	5.76	4.87	0.89	6.09 b-e	86.61 ab	0.00 b	5.39 d-f
Florida Fancy	5.70	4.83	0.87	11.11 a	83.42 a-d	0.00 b	3.54 f
Sugg	5.68	4.83	0.85	5.95 c-e	84.39 a-d	0.00 b	7.48 b-d
VA 98R	5.72	4.82	0.87	6.58 b-e	83.49 a-d	0.00 b	7.94 bc
VT 004152	5.71	4.86	0.85	5.70 c-e	84.16 a-d	0.00 b	8.25 b
VT 024024	5.72	4.86	0.82	8.73 ab	77.18 e	0.00 b	12.48 a
VT 024051	5.69	4.80	0.90	5.12 de	82.28 cd	0.00 b	10.82 a
N04074FCT	5.75	4.89	0.88	4.40 e	82.91 b-d	0.08 a	10.54 a
N05006	5.76	4.90	0.84	4.95 de	85.08 a-d	0.00 b	8.06 bc
N05008	5.75	4.89	0.89	5.13 de	81.47 d	0.00 b	11.59 a
N05024J	5.65	4.86	0.86	7.92 bc	84.10 a-d	0.00 b	6.00 c-e
Mean	5.72	4.86	0.87	6.47	84.05	0.01	7.38

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, Planting Date 1, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.37	4.87	0.50	3.10 c-j ¹	82.33 a-e	0.27 d-f	13.43 f-j
Gregory	5.43	4.77	0.67	2.00 ij	79.67 b-g	1.63 b-f	15.10 d-i
Perry	5.27	4.70	0.57	2.37 f-j	85.23 a-c	0.67 ef	10.70 g-j
CHAMPS	5.37	4.80	0.40	2.20 h-j	83.57 a-d	0.67 c-f	11.67 g-j
Phillips	5.27	4.70	0.57	2.57 e-j	81.27 a-f	1.07 b-f	13.57 f-j
Bailey	5.33	4.73	0.60	2.30 g-j	88.03 a	0.00 f	7.67j
Georgia 08V	5.33	4.73	0.60	7.30 a	66.73 jk	2.70 b	21.30 b-d
Florida Fancy	5.40	4.83	0.50	1.73 j	85.93 ab	0.93 c-f	9.13 ij
Sugg	5.27	4.73	0.53	2.43 e-j	76.00 d-h	0.83 c-f	19.23 c-f
VA 98R	5.37	4.77	0.43	2.17 h-j	80.53 a-g	0.27 d-f	15.53 c-i
Titan	5.40	4.65	0.75	3.40 c-j	74.55 f-i	2.25 bc	17.75 c-g
VT 004152	5.30	4.77	0.53	2.50 e-j	78.97 b-g	0.30 d-f	16.43 c-h
VT 003200	5.33	4.67	0.67	6.13 ab	75.63 e-i	0.00 f	16.43 c-h
VT 024024	5.43	4.77	0.67	4.83 b-d	65.53 kl	1.17 b-f	27.20 b
VT 024051	5.40	4.77	0.63	3.10 c-j	73.33 g-j	0.67 c-f	21.03 b-e
N04074FCT	5.33	4.73	0.60	2.90 d-j	85.67 ab	0.33 d-f	9.13 ij
N05006	5.27	4.73	0.53	1.97 ij	80.63 a-g	0.20 d-f	15.30 d-i
N05008	5.37	4.67	0.70	4.03 b-i	79.67 b-g	0.00 f	14.50 d-j
N05024J	5.33	4.80	0.53	2.17 h-j	83.47 a-d	0.60 c-f	11.83 g-j
N07033olSm	5.30	4.73	0.57	2.67 d-j	76.73 d-h	1.93 b-d	17.27 c-h
N07036olSmT	5.30	4.67	0.63	3.57 c-j	77.90 c-h	1.03 b-f	16.17 c-i
N07037olSm	5.33	4.73	0.60	4.00 b-i	76.07 d-h	0.80 c-f	17.23 c-h
N08069olJCT	5.40	4.70	0.70	5.27 a-c	81.10 a-f	0.67 c-f	10.93 g-j
N08070olJC	5.33	4.77	0.57	3.50 c-j	70.93 i-k	1.10 b-f	22.53 bc
N08071olJC	5.40	4.77	1.93	3.40 c-j	58.67 l	1.83 b-e	34.67 a
N08072olCT	5.37	4.80	0.57	3.60 c-j	77.80 c-h	0.40 d-f	16.10 c-i
N08073olCT	5.37	4.77	0.60	3.17 c-j	79.63 b-g	0.33 d-f	15.10 d-i
N08074olC	5.33	4.80	0.53	3.87 c-j	79.00 b-g	0.00 f	15.20 d-i
N08075olCT	5.37	4.73	0.63	4.53 b-f	76.97 d-h	1.00 b-f	16.43 c-h
N08081olJC	5.37	4.73	0.63	4.43 b-g	82.57 a-e	0.87 c-f	10.67 h-j
N08082olJCT	5.43	4.77	0.67	4.53 b-f	80.50 a-g	0.93 b-f	12.90 f-j
N08085olJCT	5.30	4.73	0.57	2.77 d-j	81.87 a-f	0.37 d-f	13.30 f-j
N08087olJCT	5.30	4.77	0.53	4.63 b-e	79.53 b-g	0.33 d-f	14.17 e-j
SPT 06-06	5.40	4.77	0.63	7.07 a	74.53 f-i	0.33 d-f	16.40 c-h
SPT 06-07	5.40	4.87	0.53	4.23 b-h	77.97 c-h	0.73 c-f	15.20 d-i
97x22-HO2-2-B2-1-1-2B	5.50	4.73	0.50	3.30 c-j	68.13 i-k	6.07 a	21.27 b-d
Mean	5.35	4.75	0.62	3.55	77.99	0.90	15.89

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 from Tidewater AREC (Suffolk) VA, Planting Date 2, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.43	4.73	0.70	2.17 e-h ¹	79.13 ab	1.43 d-i	15.40 g-i
Gregory	5.30	4.73	0.57	2.50 d-h	77.10 a-e	3.37 b-e	15.17 g-i
Perry	5.53	4.73	0.80	1.90 f-h	82.10 a	1.03 e-i	13.43 hi
CHAMPS	5.50	4.77	0.73	1.57 h	74.97 a-f	1.50 d-i	20.23 d-i
Phillips	5.37	4.73	0.63	3.27 c-h	77.27 a-e	2.13 c-i	15.80 f-i
Bailey	5.37	4.80	0.57	4.97 cd	77.67 a-d	0.00 i	15.67 f-i
Georgia 08V	5.43	4.77	0.67	4.37 c-g	70.03 b-i	6.07 a	17.90 e-i
Florida Fancy	5.43	4.67	0.77	4.07 c-h	77.27 a-e	2.17 c-i	14.93 g-i
Sugg	5.43	4.80	0.63	2.20 e-h	76.20 a-e	1.03 e-i	18.87 d-i
VA 98R	5.40	4.77	0.63	3.47 c-h	63.73 g-i	2.70 c-g	28.47 a-d
Titan	5.40	4.90	0.50	2.20 e-h	67.60 d-i	4.10 a-c	24.40 a-g
VT 004152	5.40	4.73	0.67	1.50 h	70.70 c-i	3.00 c-f	23.00 a-h
VT 003200	5.40	4.73	0.67	4.63 c-e	70.03 b-i	1.17 e-i	22.37 b-h
VT 024024	5.30	4.70	0.60	3.23 c-h	63.67 g-i	1.00 e-i	30.17 a-c
VT 024051	5.37	4.67	0.70	2.17 e-h	62.47 g-i	1.07 e-i	32.57 a
N04074FCT	5.33	4.73	0.40	2.80 d-h	76.17 a-e	2.80 c-f	16.33 e-i
N05006	5.37	4.67	0.70	2.77 d-h	78.67 ab	0.67 f-i	16.33 e-i
N05008	5.50	4.80	0.50	2.70 d-h	79.47 ab	0.10 hi	15.83 f-i
N05024J	5.37	4.67	0.70	3.90 c-h	75.37 a-f	1.30 d-i	17.67 e-i
N07033oISm	5.33	4.60	0.73	4.67 c-e	75.07 a-f	2.07 c-i	16.53 e-i
N07036oISmT	5.30	4.77	0.53	4.03 c-h	62.07 hi	3.63 b-d	28.47 a-d
N07037oISm	5.43	4.67	0.77	4.50 c-f	70.67 b-i	1.37 d-i	21.67 b-h
N08069oIJCT	5.30	4.70	0.60	3.90 c-h	60.87 i	2.43 c-h	31.17 ab
N08070oIJC	5.43	4.70	0.73	3.97 c-h	72.30 a-g	0.80 f-i	21.30 c-h
N08071oIJC	5.27	4.67	0.60	2.83 d-h	65.87 f-i	1.40 d-i	28.10 a-d
N08072oICT	5.30	4.70	0.60	2.13 e-h	70.23 b-i	1.63 d-i	24.43 a-g
N08073oICT	5.50	4.70	0.80	5.67 c	71.77 b-h	0.00 i	20.80 c-h
N08074oIC	5.40	4.63	0.77	3.43 c-h	78.20 a-c	0.87 f-i	15.83 f-i
N08075oICT	5.37	4.73	0.63	3.87 c-h	70.87 b-i	1.63 d-i	21.90 b-h
N08081oIJC	5.27	4.63	0.63	1.90 f-h	68.37 c-i	2.07 c-i	25.87 a-e
N08082oIJCT	5.30	4.73	0.57	3.03 d-h	67.23 e-i	2.73 c-g	25.40 a-f
N08085oIJCT	5.23	4.67	0.57	1.87 gh	79.47 ab	0.73 f-i	16.13 e-i
N08087oIJCT	5.30	4.70	0.60	3.27 c-h	74.53 a-f	0.90 f-i	19.40 d-i
SPT 06-06	5.43	4.80	0.63	11.13 a	76.17 a-e	0.33 g-i	10.53 i
SPT 06-07	5.40	4.80	0.60	8.43 b	75.67 a-f	0.97 e-i	13.40 hi
97x22-HO2-2-B2-1-1-2B	5.33	4.70	0.63	4.10 c-h	71.83 b-h	5.77 ab	16.90 e-i
Mean	5.38	4.72	0.64	3.60	72.57	1.81	20.31

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 Tidewater AREC (Suffolk) VA, Planting Date 3, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.33	4.70	0.63	2.57 g-i	83.80 a	1.47 b-h	10.23 k-m
Gregory	6.37	4.67	0.70	3.40 d-i	80.23 a-e	1.47 b-h	13.03 i-m
Perry	5.40	4.77	0.63	3.37 d-i	81.83 a-d	0.83 f-h	12.17 j-m
CHAMPS	5.40	4.70	0.70	2.57 g-i	79.93 a-e	0.47 h	15.20 f-m
Phillips	5.45	4.75	0.70	4.80 b-i	75.90 b-i	2.45 a-h	15.10 f-m
Bailey	5.33	4.73	0.63	4.00 c-i	80.10 a-e	1.00 e-h	13.00 i-m
Georgia 08V	5.43	4.73	0.70	4.93 b-h	66.60 j-l	3.90 a	22.70 b-e
Florida Fancy	5.40	4.70	0.70	3.23 d-i	81.87 a-d	1.53 b-h	11.47 j-m
Sugg	5.37	4.73	0.63	2.50 g-i	69.53 i-l	3.07 a-e	23.00 b-e
VA 98R	5.35	4.80	0.55	3.00 e-i	65.40 j-l	3.15 a-d	26.95 a-d
Titan	5.20	4.60	0.60	5.90 b-d	72.00 f-j	0.80 f-h	20.00 d-i
VT 004152	5.35	4.70	0.65	2.55 g-i	76.45 a-i	1.10 d-h	18.05 e-j
VT 003200	5.33	4.73	0.60	3.27 d-i	77.63 a-h	1.17 d-h	16.03 e-l
VT 024024	5.33	4.67	0.67	5.80 b-d	69.63 i-l	1.20 c-h	21.53 c-g
VT 024051	5.33	4.63	0.67	5.07 b-g	70.50 h-k	0.70 f-h	21.90 c-f
N04074FCT	5.43	4.67	0.77	2.97 e-i	80.13 a-e	1.50 b-h	13.87 h-m
N05006	5.40	4.63	0.77	2.40 g-i	82.27 a-c	0.80 f-h	12.73 i-m
N05008	5.43	4.73	0.70	2.70 g-i	78.57 a-g	2.60 a-g	14.23 g-m
N05024J	5.40	4.80	0.60	2.10 i	76.47 a-i	1.97 a-h	17.47 e-k
N07033oISm	5.40	4.80	0.60	5.70 b-e	71.67 g-j	2.03 a-h	18.80 e-j
N07036oISmT	5.35	4.65	0.70	3.60 d-i	74.80 d-i	2.50 a-h	17.20 e-k
N07037oISm	5.35	4.80	0.55	5.55 b-f	71.55 g-k	2.75 a-f	18.40 e-j
N08069oIJCT	5.40	4.67	0.73	3.17 d-i	64.20 kl	0.93 f-h	29.87 ab
N08070oIJC	5.37	4.70	0.67	6.83 b	62.33 lm	1.30 c-h	27.73 a-c
N08071oIJC	5.40	4.65	0.75	6.60 bc	56.40 m	1.05 d-h	34.00 a
N08072oICT	5.35	4.75	0.60	4.80 b-i	74.25 e-i	1.15 d-h	17.90 e-j
N08073oICT	5.33	4.70	0.60	5.00 b-g	69.10 i-l	3.30 a-c	20.65 c-h
N08074oIC	5.43	4.63	0.80	2.83 f-i	79.07 a-f	1.87 a-h	14.47 f-m
N08075oICT	5.40	4.67	0.73	3.77 d-i	77.63 a-h	1.20 c-h	15.53 e-m
N08081oIJC	5.37	4.73	0.63	3.20 d-i	82.50 ab	0.83 f-h	11.77 j-m
N08082oIJCT	5.27	4.63	0.63	2.30 g-i	78.03 a-g	1.87 a-h	15.57 e-m
N08085oIJCT	5.27	4.63	0.63	2.17 hi	82.97 ab	0.60 gh	12.37 j-m
N08087oIJCT	5.37	4.73	0.63	4.17 b-i	71.73 f-j	1.73 b-h	20.57 c-h
SPT 06-06	5.37	4.80	0.57	12.57 a	74.30 e-i	1.00 e-h	8.50 m
SPT 06-07	5.33	4.77	0.67	11.37 a	75.87 b-i	1.60 b-h	9.30 lm
97x22-HO2-2-B2-1-1-2B	5.40	4.70	0.70	4.20 b-i	75.00 c-i	3.50 ab	15.80 e-m
Mean	5.40	4.71	0.66	4.26	75.13	1.62	17.10

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

Peanut Variety & Quality Evaluation Results – II Quality Data 2010

Blanching Results

Table 15. Laboratory sample blanching of Medium Kernels. Averages from planting dates from Tidewater AREC (Suffolk) VA, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.38	4.77	0.61	2.61 g-j	81.76 ab	1.06 e-i	13.02 j-m
Gregory	5.70	4.72	0.64	2.63 g-j	79.00 a-d	2.16 c-e	14.43 h-m
Perry	5.40	4.73	0.67	2.54 g-j	83.06 a	0.64 g-i	12.10 lm
CHAMPS	5.42	4.76	0.61	2.11 j	79.49 a-d	0.88 e-i	15.70 f-m
Phillips	5.35	4.73	0.63	3.39 d-j	78.43 a-e	1.81 c-h	14.79 h-m
Bailey	5.34	4.76	0.60	3.76 d-j	81.93 ab	0.33 i	12.11 lm
Georgia 08V	5.40	4.74	0.66	5.53 c	67.79jk	4.22 b	20.63 c-f
Florida Fancy	5.41	4.73	0.66	3.01 e-j	81.69 ab	1.54 c-i	11.84 m
Sugg	5.36	4.76	0.60	2.38 h-j	73.91 d-i	1.64 c-h	20.37 c-g
VA 98R	5.38	4.78	0.54	2.86 f-j	70.45 g-k	1.90 c-g	23.24 b-e
Titan	5.36	4.74	0.62	3.42 d-j	71.26 f-k	2.70 c	20.86 c-f
VT 004152	5.35	4.74	0.61	2.14 ij	75.24 c-g	1.51 c-i	19.30 d-i
VT 003200	5.36	4.71	0.64	4.68 cd	74.43 d-h	0.78 f-i	18.28 e-j
VT 024024	5.36	4.71	0.64	4.62 c-e	66.28 kl	1.12 e-i	26.30 b
VT 024051	5.36	4.69	0.67	3.44 d-j	68.77 h-k	0.81 f-i	25.17 bc
N04074FCT	5.37	4.71	0.59	2.89 f-j	80.66 a-c	1.54 c-i	13.11 j-m
N05006	5.34	4.68	0.67	2.38 h-j	80.52 a-c	0.56 hi	14.79 h-m
N05008	5.43	4.73	0.63	3.14 d-j	79.23 a-d	0.90 e-i	14.86 h-m
N05024J	5.37	4.76	0.61	2.72 f-j	78.43 a-e	1.29 e-i	15.66 f-m
N07033oISm	5.34	4.71	0.63	4.34 c-f	74.49 d-h	2.01 c-f	17.53 f-l
N07036oISmT	5.31	4.70	0.61	3.75 d-j	71.19 f-k	2.38 cd	21.04 c-f
N07037oISm	5.38	4.73	0.65	4.58 c-e	72.91 e-j	1.50 c-i	19.19 d-i
N08069oIJCT	5.37	4.69	0.68	4.11 c-g	68.72 h-k	1.34 d-i	23.99 b-d
N08070oIJC	5.38	4.72	0.66	4.77 cd	68.52 i-k	1.07 e-i	23.86 b-d
N08071oIJC	5.35	4.70	1.14	3.99 c-h	60.80 l	1.48 c-i	32.04 a
N08072oICT	5.34	4.75	0.59	3.35 d-j	74.08 d-i	1.05 e-i	19.68 d-h
N08073oICT	5.40	4.73	0.68	4.56 c-e	74.05 d-i	0.95 e-i	18.63 d-i
N08074oIC	5.39	4.69	0.70	3.38 d-j	78.76 a-e	0.91 e-i	15.17 g-m
N08075oICT	5.38	4.71	0.67	4.06 c-g	75.16 c-g	1.28 d-i	17.96 e-k
N08081oIJC	5.33	4.70	0.63	3.18 d-j	77.81 a-e	1.26 e-i	16.10 f-m
N08082oIJCT	5.33	4.71	0.62	3.29 d-j	75.26 c-g	1.84 c-h	17.96 e-k
N08085oIJCT	5.27	4.68	0.59	2.27 ij	81.43 ab	0.57 hi	13.93 i-m
N08087oIJCT	5.32	4.73	0.59	4.02 c-h	75.27 c-g	0.99 e-i	18.04 e-k
SPT 06-06	5.40	4.79	0.61	10.26 a	75.00 c-g	0.56 hi	11.81 m
SPT 06-07	5.38	4.81	0.60	8.01 b	76.50 b-f	1.10 d-i	12.63 k-m
97x22-HO2-2-B2-1-1-2B	5.41	4.71	0.59	3.77 d-i	70.70 f-k	5.57 a	18.61 d-i
Mean	5.38	4.73	0.64	3.79	75.24	1.43	17.79

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 from Martin County, NC, Planting date 1, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.20	4.60	0.60	2.80 d-g	74.95 a-g	1.25 de	19.05 d-i
Gregory	5.30	4.63	0.67	4.67 c-f	77.23 a-e	3.00 a-d	13.23 g-i
Perry	5.10	4.50	0.60	3.50 c-g	82.20 ab	0.40 e	12.00 hi
CHAMPS	5.25	4.60	0.65	2.80 d-g	77.40 a-e	1.75 c-e	16.15 f-i
Phillips	5.20	4.60	0.60	3.20 c-g	82.50 a	1.90 b-e	10.30 i
Bailey	5.27	4.63	0.63	4.10 b-g	77.50 a-d	1.73 c-e	15.17 f-i
Georgia 08V	-- ²	--	--	--	--	--	--
Florida Fancy	5.40	4.70	0.70	2.70 d-g	80.10 a-c	2.30 a-e	12.95 hi
Sugg	5.30	4.70	0.60	3.35 c-g	68.65 f-l	3.70 a-c	22.45 c-f
VA 98R	5.30	4.67	0.63	4.17 b-g	72.13 c-i	1.93 b-e	19.83 c-h
Titan	--	--	--	--	--	--	--
VT 004152	5.20	4.60	0.60	3.75 b-g	69.65 d-k	2.50 a-d	22.20 c-f
VT 003200	5.30	4.63	0.67	3.80 b-g	73.97 b-g	2.07 b-e	17.93 e-i
VT 024024	5.30	4.65	0.65	6.60 b	63.70 j-l	2.30 a-e	25.65 a-e
VT 024051	5.23	4.53	0.70	2.77 d-g	69.17 e-k	2.77 a-d	23.37 b-f
N04074FCT	5.30	4.63	0.67	4.13 b-g	65.17 i-l	2.30 a-e	23.67 b-f
N05006	5.27	4.60	0.67	1.43 g	63.33 j-l	1.37 de	31.93 ab
N05008	5.23	4.67	0.57	2.03 fg	66.67 g-l	1.00 de	27.80 a-d
N05024J	5.23	4.67	0.57	4.57 b-f	73.60 c-h	4.10 a	15.83 f-i
N07033oISm	5.20	4.55	0.65	5.50 b-d	72.75 c-i	1.10 de	18.75 e-i
N07036oISmT	5.37	4.70	0.67	5.90 bc	68.73 f-k	3.57 a-c	19.83 c-h
N07037oISm	5.35	4.70	0.65	5.20 b-e	74.70 a-g	3.70 a-c	14.55 f-i
N08069oIJCT	5.23	4.57	0.67	5.30 b-e	62.27 kl	2.40 a-e	28.13 a-c
N08070oIJC	5.20	4.50	0.70	2.50 e-g	60.40 l	1.90 b-e	33.55 a
N08071oIJC	5.30	4.65	0.65	3.20 c-g	62.40 kl	1.00 de	31.60 ab
N08072oICT	5.37	4.63	0.73	3.30 c-g	70.83 d-j	2.13 a-e	21.87 c-g
N08073oICT	5.20	4.73	0.47	3.60 c-g	74.37 a-g	1.93 b-e	18.20 e-i
N08074oIC	5.37	4.63	0.73	3.17 c-g	72.87 c-i	2.97 a-d	19.10 d-i
N08075oICT	5.23	4.60	0.63	2.27 fg	72.43 c-i	3.90 ab	19.53 c-h
N08081oIJC	--	--	--	--	--	--	--
N08082oIJCT	5.20	4.63	0.57	3.77 b-g	74.03 b-g	1.87 c-e	18.57 e-i
N08085oIJCT	5.23	4.57	0.67	3.27 c-g	75.57 a-f	1.80 c-e	17.47 e-i
N08087oIJCT	5.20	4.65	0.55	2.70 d-g	76.00 a-f	1.95 b-e	17.35 e-i
SPT 06-06	5.25	4.70	0.55	13.30 a	63.45 j-l	1.05 de	20.35 c-h
SPT 06-07	5.27	4.73	0.53	11.73 a	65.37 h-l	2.70 a-d	18.33 e-i
97x22-HO2-2-B2-1-1-2B	--	--	--	--	--	--	--
Mean	5.27	4.63	0.63	4.22	70.98	2.27	20.50

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

² Missing values are due to the lack of available sample to run blanching analyses.

Blanching Results

Table 17. Laboratory sample blanching of Medium Kernels from Martin County, NC, Planting date 2, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.35	4.80	0.55	4.70 b	77.85 a-e	0.75 c-e	14.65 c-g
Gregory	-- ²	--	--	--	--	--	--
Perry	5.70	4.90	0.80	3.60 b	80.20 a-e	1.80 b-e	12.50 d-h
CHAMPS	5.60	4.80	0.80	2.90 b	88.00 a	0.90 c-e	6.30 h
Phillips	--	--	--	--	--	--	--
Bailey	5.60	4.90	0.70	2.90 b	84.10 ab	1.00 c-e	10.10 gh
Georgia 08V	--	--	--	--	--	--	--
Florida Fancy	--	--	--	--	--	--	--
Sugg	--	--	--	--	--	--	--
VA 98R	5.25	4.60	0.65	5.60 b	67.75 c-e	2.10 b-e	22.80 a-c
Titan	---	--	--	--	--	--	--
VT 004152	5.20	4.55	0.65	5.30 b	72.40 a-e	1.50 c-e	18.85 a-e
VT 003200	5.40	4.75	0.65	5.10 b	77.15 a-e	1.45 c-e	14.40 d-h
VT 024024	--	--	--	--	--	--	--
VT 024051	5.60	4.80	0.80	3.00 b	78.70 a-e	0.30 e	16.20 b-g
N04074FCT	5.30	4.65	0.65	4.90 b	75.35 a-e	1.85 b-e	16.10 b-g
N05006	5.37	4.73	0.63	4.03 b	72.10 a-e	1.70 b-e	20.27 a-d
N05008	5.43	4.67	0.77	4.33 b	73.53 a-e	1.43 c-e	18.73 a-e
N05024J	--	--	--	--	--	--	--
N07033oISm	5.40	4.75	0.65	4.05 b	78.75 a-e	2.45 a-c	12.85 d-h
N07036oISmT	5.40	4.60	0.80	4.50 b	75.10 a-e	1.60 c-e	16.90 a-g
N07037oISm	--	--	--	--	--	--	--
N08069oIJCT	5.33	4.60	0.73	5.73 b	68.73 b-e	0.37 de	23.40 ab
N08070oIJC	5.20	4.60	0.60	4.90 b	76.45 a-e	1.60 c-e	15.20 b-g
N08071oIJC	5.35	4.75	0.60	4.55 b	73.40 a-e	1.65 b-e	18.50 a-f
N08072oICT	5.45	4.70	0.75	6.10 b	76.40 a-e	1.95 b-e	13.70 d-h
N08073oICT	5.45	4.80	0.65	5.35 b	64.30 e	1.55 c-e	10.35 f-h
N08074oIC	5.35	4.70	0.65	4.30 b	80.30 a-d	0.80 c-e	12.70 d-h
N08075oICT	5.35	4.80	0.55	5.15 b	77.15 a-e	1.05 c-e	14.85 c-g
N08081oIJC	5.60	4.80	0.80	3.60 b	78.10 a-e	3.50 ab	12.90 d-h
N08082oIJCT	5.40	4.75	0.65	2.60 b	75.05 a-e	2.00 b-e	18.45 a-f
N08085oIJCT	5.33	4.63	0.70	3.67 b	81.40 a-c	1.43 c-e	11.60 e-h
N08087oIJCT	5.30	4.60	0.70	3.75 b	76.70 a-e	1.55 c-e	16.20 b-g
SPT 06-06	5.40	4.73	0.67	12.47 a	71.73 b-e	2.23 a-d	11.63 e-h
SPT 06-07	5.45	4.80	0.65	15.00 a	69.55 b-e	1.20 c-e	12.30 d-h
97x22-HO2-2-B2-1-1-2B	5.20	4.50	0.70	3.90 b	64.90 de	4.00 a	25.20 a
Mean	5.38	4.70	0.68	5.34	74.78	1.57	15.79

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

² Missing values are due to the lack of available sample to run blanching analyses.

Blanching Results

Table 18. Laboratory sample blanching of Medium Kernels. Averages from planting dates from Martin County, NC, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.28	4.70	0.58	3.75 cd ¹	76.40 a-h	1.00 h	16.85 b-i
Gregory	5.30	4.63	0.67	4.67 b-d	77.23 a-g	3.00 a-f	13.23 g-i
Perry	5.40	4.70	0.70	3.55 cd	81.20 ab	1.10 gh	12.25 hi
CHAMPS	5.37	4.67	0.70	2.83 cd	80.93 ab	1.47 e-h	12.87 g-i
Phillips	5.20	4.60	0.60	3.20 cd	82.50 a	1.90 d-h	10.30 i
Bailey	5.35	4.70	0.65	3.80 cd	79.15 a-d	1.55 e-h	13.90 f-i
Georgia 08V	-- ²	--	--	--	--	--	--
Florida Fancy	5.40	4.70	0.70	2.70 d	80.10 a-c	2.30 b-h	12.95 g-i
Sugg	5.30	4.70	0.60	3.35 cd	68.65 e-k	3.70 a-c	22.45 a-f
VA 98R	5.28	4.64	0.64	4.74 b-d	70.38 c-k	2.00 c-h	21.02 a-h
Titan	--	--	--	--	--	--	--
VT 004152	5.20	4.58	0.63	4.53 b-d	70.03 c-k	2.00 c-h	20.53 a-h
VT 003200	5.34	4.68	0.66	4.32 b-d	75.24 a-i	1.82 d-h	16.52 c-i
VT 024024	5.30	4.65	0.65	6.60 b	63.70 k	2.30 b-h	25.65 ab
VT 024051	5.33	4.60	0.73	2.83 cd	71.55 b-k	2.15 c-h	21.58 a-g
N04074FCT	5.30	4.64	0.66	4.44 b-d	69.24 e-k	2.12 c-h	20.46 a-h
N05006	5.32	4.67	0.65	2.73 d	67.72 g-k	1.53 e-h	26.10 a
N05008	5.33	4.67	0.67	3.18 cd	70.10 d-k	1.22 gh	23.27 a-e
N05024J	5.23	4.67	0.57	4.57 b-d	73.60 a-j	4.10 a	15.83 d-i
N07033oISm	5.30	4.65	0.65	4.78 b-d	75.75 a-h	1.78 d-h	15.80 d-i
N07036oISmT	5.38	4.68	0.70	5.55 bc	70.33 c-k	3.08 a-e	19.10 a-i
N07037oISm	5.35	4.70	0.65	5.20 b-d	74.70 a-j	3.70 a-c	14.55 e-i
N08069oIJCT	5.28	4.58	0.70	5.52 bc	65.50 i-k	1.38 e-h	25.77 a
N08070oIJC	5.20	4.55	0.65	3.70 cd	68.43 f-k	1.75 e-h	24.38 a-d
N08071oIJC	5.33	4.70	0.63	3.88 b-d	67.90 g-k	1.33 f-h	25.05 a-c
N08072oICT	5.40	4.66	0.74	4.42 b-d	73.06 a-k	2.06 c-h	18.60 a-i
N08073oICT	5.30	4.76	0.54	4.30 b-d	70.34 c-k	1.78 d-h	15.06 e-i
N08074oIC	5.36	4.66	0.70	3.62 cd	75.84 a-h	2.10 c-h	16.54 c-i
N08075oICT	5.28	4.68	0.60	3.42 cd	74.32 a-j	2.76 a-g	17.66 a-i
N08081oIJC	5.60	4.80	0.80	3.60 cd	78.10 a-f	3.50 a-d	12.90 g-i
N08082oIJCT	5.28	4.68	0.60	3.30 cd	74.44 a-j	1.92 d-h	18.52 a-i
N08085oIJCT	5.28	4.60	0.68	3.47 cd	78.48 a-e	1.62 e-h	14.53 e-i
N08087oIJCT	5.25	4.63	0.63	3.23 cd	76.35 a-h	1.75 e-h	16.78 b-i
SPT 06-06	5.34	4.72	0.62	12.80 a	68.42 f-k	1.76 e-h	15.12 e-i
SPT 06-07	5.34	4.76	0.58	13.04 a	67.04 h-k	2.10 c-h	15.92 d-i
97x22-HO2-2-B2-1-1-2B	5.20	4.50	0.70	3.90 b-d	64.90 jk	4.00 ab	25.20 a-c
Mean	5.31	4.66	0.65	4.66	72.48	2.00	18.64

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

² Missing values are due to the lack of available sample to run blanching analyses.

Blanching Results

Table 19. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk) VA and Martin County, NC, 2010.

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.35	4.75	0.60	2.96 g-i ¹	80.11 a-d	1.04 e-g	14.20 j-l
Gregory	5.60	4.70	0.65	3.14 f-i	78.56 a-g	2.37 cd	14.13 j-l
Perry	5.40	4.73	0.67	2.73 hi	82.72 a	0.73 fg	12.13 l
CHAMPS	5.41	4.73	0.63	2.29 i	79.85 a-e	1.03 e-g	14.99 i-l
Phillips	5.33	4.71	0.62	3.37 d-i	78.88 a-f	1.82 c-e	14.29 j-l
Bailey	5.35	4.74	0.62	3.77 c-h	81.08 ab	0.71 g	12.66 kl
Georgia 08V	5.40	4.74	0.66	5.53 b	67.79 o-r	4.22 b	20.63 c-f
Florida Fancy	5.41	4.73	0.66	2.95 g-i	81.40 ab	1.68 c-g	12.05 l
Sugg	5.35	4.75	0.60	2.55 hi	72.96 h-n	2.02 c-e	20.75 c-f
VA 98R	5.34	4.72	0.58	3.59 c-i	70.42 k-q	1.94 c-e	22.39 b-e
Titan	5.36	4.74	0.62	3.42 d-i	71.26 j-p	2.70 c	20.86 c-f
VT 004152	5.30	4.68	0.62	2.93 g-i	73.83 f-m	1.68 c-g	19.71 d-h
VT 003200	5.35	4.70	0.65	4.55 b-f	74.72 e-m	1.15 e-g	17.65 f-j
VT 024024	5.35	4.70	0.65	4.98 bc	65.81 qr	1.34 d-g	26.18 ab
VT 024051	5.35	4.66	0.69	3.25 d-i	69.62 m-q	1.22 e-g	24.06 b-d
N04074FCT	5.34	4.69	0.61	3.44 d-i	76.58 b-i	1.75 c-g	15.74 h-l
N05006	5.33	4.67	0.66	2.52 hi	75.40 c-k	0.95 e-g	19.31 e-i
N05008	5.39	4.71	0.65	3.16 f-i	75.58 c-j	1.03 e-g	18.22 e-j
N05024J	5.33	4.73	0.60	3.18 f-i	77.23 b-i	1.99 c-e	15.70 h-l
N07033oISm	5.33	4.69	0.64	4.48 b-f	74.88 e-l	1.94 c-e	17.00 f-k
N07036oISmT	5.33	4.69	0.64	4.35 b-g	70.90 j-q	2.61 c	20.39 c-g
N07037oISm	5.37	4.72	0.65	4.70 b-d	73.27 h-n	1.94 c-e	18.26 e-j
N08069oIJCT	5.33	4.65	0.69	4.67 b-e	67.43 p-r	1.36 d-g	24.70 bc
N08070oIJC	5.32	4.67	0.65	4.44 b-f	68.49 n-q	1.28 e-g	24.02 b-d
N08071oIJC	5.34	4.70	0.97	3.95 c-h	63.17 r	1.43 d-g	29.71 a
N08072oICT	5.36	4.72	0.65	3.76 c-h	73.69 g-m	1.44 d-g	19.26 e-i
N08073oICT	5.36	4.74	0.62	4.46 b-f	72.62 i-o	1.27 e-g	17.25 f-k
N08074oIC	5.38	4.68	0.70	3.47 d-i	77.71 a-i	1.34 d-g	15.66 h-l
N08075oICT	5.35	4.70	0.64	3.83 c-h	74.86 e-l	1.81 c-f	17.85 e-j
N08081oIJC	5.36	4.71	0.65	3.22 e-i	77.84 a-h	1.48 d-g	15.78 g-l
N08082oIJCT	5.31	4.70	0.61	3.29 d-i	74.96 d-l	1.87 c-e	18.16 e-j
N08085oIJCT	5.27	4.65	0.63	2.75 hi	80.25 a-c	0.99 e-g	14.17 j-l
N08087oIJCT	5.30	4.70	0.60	3.78 c-h	75.60 c-j	1.22 e-g	17.65 f-j
SPT 06-06	5.38	4.76	0.61	11.16 a	72.65 i-o	0.99 e-g	12.99 kl
SPT 06-07	5.36	4.79	0.59	9.81 a	73.12 h-n	1.46 d-g	13.81 j-l
97x22-HO2-2-B2-1-1-2B	5.39	4.69	0.60	3.79 c-h	69.98 l-q	5.38 a	19.44 d-i
Mean	5.36	4.71	0.64	4.05	74.41	1.60	18.04

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 20. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk) VA, and Martin County, NC. Two-year averages (2009- 2010).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.81	4.87	0.84	20.45 c-e ¹	60.24 a	0.16 ef	16.31 cd
Gregory	5.70	4.82	0.88	15.96 de	54.80 a	0.74 b-d	15.69 cd
Perry	5.73	4.87	0.87	20.21 c-e	54.13 a	0.63 b-e	22.17 bc
CHAMPS	5.73	4.79	0.92	22.71 b-d	58.35 a	0.42 c-f	15.72 cd
Phillips	5.74	4.82	0.94	21.22 c-e	58.44 a	0.93 b	16.27 cd
Bailey	5.74	4.76	0.98	24.86 a-c	53.39 a	0.12 f	18.70 b-d
Georgia 08V	5.64	4.77	0.87	31.12 a	39.26 a	1.78 a	13.86 d
Florida Fancy	5.65	4.89	0.76	30.40 ab	52.05 a	0.49 b-f	13.59 d
Sugg	5.73	4.88	0.85	16.57 de	56.68 a	0.90 bc	22.88 bc
VA 98R	5.65	4.86	0.79	20.34 c-e	60.02 a	0.12 f	16.68 cd
VT 004152	5.60	4.84	0.76	17.69 c-e	57.98 a	0.34 d-f	21.07 b-d
VT 003200	5.68	4.91	0.77	22.12 cd	55.65 a	0.35 d-f	18.83 b-d
VT 024024	5.70	4.89	0.78	15.28 de	58.86 a	0.38 d-f	22.80 bc
VT 024051	5.74	4.83	0.91	20.31 c-e	54.50 a	0.39 d-f	21.69 bc
N04074FCT	5.76	4.86	0.90	13.46 e	51.24 a	0.55 b-f	31.32 a
N05006	5.75	4.93	0.72	20.78 c-e	57.15 a	0.18 ef	19.20 b-d
N05008	5.79	4.90	0.89	16.19 de	56.04 a	0.26 d-f	24.69 ab
N05024J	5.77	4.91	0.76	25.24 a-c	53.15 a	0.58 b-f	17.88 b-d
Mean	5.72	4.86	0.84	20.79	55.19	0.51	19.41

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 21. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk), VA and Martin County, NC. Three-year averages (2008- 2010).

Variety or Line	% H ₂ O before Roasting	% H ₂ O after Roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
NC-V 11	5.87	4.92	0.88	18.84 bc ¹	62.58 a	0.30 cd	15.84 e-g
Gregory	5.77	4.85	0.85	14.79 cd	59.14 a	0.82 ab	15.66 e-g
Perry	5.83	4.91	0.92	18.28 bc	59.77 a	0.59 a-d	18.83 c-f
CHAMPS	5.81	4.84	0.96	20.07 bc	62.73 a	0.34 b-d	14.42 fg
Phillips	5.81	4.90	0.92	19.77 bc	60.67 a	0.71 a-c	16.00 d-g
Bailey	5.81	4.85	0.96	20.37 bc	60.11 a	0.09 d	16.59 d-g
Florida Fancy	5.66	4.89	0.76	27.21 a	56.82 a	0.63 a-c	12.36 g
Sugg	5.75	4.89	0.86	15.28 cd	59.22 a	0.94 a	21.75 b-e
VA 98R	5.76	4.90	0.86	17.71 b-d	62.14 a	0.26 cd	17.42 c-g
VT 004152	5.66	4.89	0.77	14.45 cd	62.45 a	0.43 a-d	20.26 b-f
VT 024024	5.72	4.90	0.81	14.39 cd	59.66 a	0.65 a-c	23.08 bc
VT 024051	5.79	4.86	0.93	16.84 b-d	57.94 a	0.28 cd	22.24 b-d
N04074FCT	5.83	4.91	0.91	11.14 d	54.70 a	0.61 a-c	30.12 a
N05006	5.84	4.94	0.83	16.74 b-d	59.69 a	0.27 cd	20.84 b-e
N05008	5.84	4.86	0.92	14.40 cd	57.34 a	0.46 a-d	25.49 ab
N05024J	5.79	4.93	0.79	22.48 ab	56.20 a	0.51 a-d	17.86 c-g
Mean	5.79	4.89	0.87	17.68	59.43	0.49	19.30

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 22. 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 Planting Date 1, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.00 a-c ²	2.94 e-j	51.88 h	28.95 a	1.28 g-k	1.14 k-m
Gregory	8.91 c-f	3.23 c-d	56.05 gh	25.31 ab	1.45 bc	1.17 k-m
Perry	9.40 a-e	2.88 g-k	54.84 gh	26.90 ab	1.31 f-k	1.15 k-m
CHAMPS	9.76 a-d	2.98 d-h	53.32 gh	27.73 ab	1.34 d-j	1.20 i-l
Phillips	9.82 a-d	2.96 e-j	52.06 h	28.95 a	1.31 f-k	1.17 k-m
Bailey	9.73 a-d	2.65 j-n	51.97 h	29.63 a	1.27 g-l	1.17 k-m
Georgia 08V	6.62 h-j	3.30 b-d	77.96 ab	4.98 g	1.45 b-d	1.51 a-e
Florida Fancy	6.17 ij	3.00 d-h	79.65 a	4.24 g	1.39 c-f	1.57 a-c
Sugg	8.79 d-f	2.77 h-m	57.00 f-h	25.05 a-c	1.33 e-j	1.23 i-l
VA 98R	9.26 b-e	2.95 e-j	56.56 gh	24.86 a-c	1.32 e-k	1.21 i-l
Titan	--	--	--	--	--	--
VT 004152	9.30 b-e	3.56 b	55.58 gh	25.13 a-c	1.54 b	1.03 m
VT 003200	8.27 e-g	3.10 c-g	60.93 e-g	20.74 b-d	1.45 bc	1.32 g-j
VT 024024	9.33 a-e	2.97 e-i	56.38 gh	24.82 a-c	1.36 c-h	1.23 i-l
VT 024051	9.45 a-d	3.36 bc	55.23 gh	25.48 ab	1.45 b-d	1.09 lm
N04074FCT	9.16 b-e	2.82 g-l	53.39 gh	27.92 ab	1.33 e-j	1.25 h-k
N05006	10.48 a	2.60 k-n	50.02 h	30.71 a	1.22 k-m	1.21 i-l
N05008	10.17 ab	3.03 d-h	52.74 gh	28.00 ab	1.33 e-j	1.10 lm
N05024J	9.35 a-e	2.95 e-j	55.77 gh	25.52 ab	1.35 c-i	1.17 j-m
N07033oISm	6.21 ij	2.90 f-k	80.23 a	3.82 g	1.34 e-j	1.63 ab
N07036oISmT	5.99 ij	3.21 c-f	80.95 a	3.46 g	1.36 c-i	1.56 a-c
N07037oISm	7.49 gh	3.24 c-e	67.81 c-e	14.94 de	1.42 c-e	1.34 f-i
N08069oIJCT	7.94 fg	2.62 k-n	65.13 d-f	17.92 c-e	1.25 i-l	1.39 e-h
N08070oIJC	6.42 h-j	2.43o-n	77.66 ab	7.18 fg	1.17 lm	1.59 a-c
N08071oIJC	6.62 h-j	2.47 mn	77.76 ab	7.02 fg	1.14 m	1.60 a-c
N08072oICT	6.07 ij	2.99 d-h	79.00 ab	5.28 fg	1.31 f-k	1.56 a-c
N08073oICT	6.03 ij	2.65 j-n	79.24 ab	5.57 fg	1.25 j-l	1.56 a-c
N08074oIC	7.14 g-i	2.66 i-n	71.26 b-d	12.46 ef	1.26 h-l	1.48 c-f
N08075oICT	5.95 j	2.65 j-n	79.97 a	5.00 g	1.25 j-l	1.65 a
N08081oIJC	6.39 h-j	2.84 g-k	78.62 ab	6.02 fg	1.28 f-k	1.47 c-f
N08082oIJCT	6.18 ij	2.85 g-k	79.16 ab	5.50 fg	1.30 f-k	1.49 b-e
N08085oIJCT	6.09 ij	2.82 g-l	80.09 a	4.44 g	1.30 f-k	1.60 a-c
N08087oIJCT	6.03 ij	2.89 f-k	80.46 a	4.20 g	1.30 f-k	1.54 a-d
SPT 06-06	9.25 b-e	2.51 l-n	55.04 gh	24.92 a-c	1.37 c-g	1.48 c-f
SPT 06-07	9.23 b-e	2.77 h-m	55.62 gh	24.48 a-c	1.42 c-e	1.41 d-g
97x22-HO2-2-B2-1-1-2B	6.61 h-j	4.21 a	74.67 a-c	7.56 fg	1.69 a	1.28 g-k
Mean	8.00	2.94	65.40	17.12	1.34	1.36
LSD_{0.05}²	1.15	0.32	8.27	7.29	0.10	0.14

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 2010

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 from Tidewater AREC (Suffolk), VA Planting Date 1, 2010¹ (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
NC-V 11	2.41 d-k ²	1.40 b-d	95.66 a-c	1.79 i	18.03 a-c	1.61 ab	5.09 d-j
Gregory	2.56 c-g	1.33 b-g	92.97 a-e	2.22 i	17.47 a-e	1.45 a-d	5.34 b-h
Perry	2.34 f-k	1.17 gh	94.68 a-d	2.18 i	17.10 c-f	1.57 a-c	4.82 g-k
CHAMPS	2.47 d-j	1.20 e-h	94.83 a-d	1.92 i	17.75 a-d	1.57 a-c	5.01 e-k
Phillips	2.49 c-i	1.25 c-h	95.84 a-c	1.80 i	17.82 a-d	1.62 ab	5.05 e-k
Bailey	2.40 e-k	1.21 d-h	96.93 ab	1.76 i	17.24 b-e	1.72 a	4.87 f-k
Georgia 08V	2.76 bc	1.43 bc	76.86 i	17.21 a-e	15.55 g-i	0.32 h	5.64 b-d
Florida Fancy	2.60 b-f	1.38 b-d	77.08 i	18.81 a-d	14.54 i-k	0.29 h	5.36 b-g
Sugg	2.55 c-g	1.29 c-g	93.38 a-e	2.57 i	16.72 d-g	1.48 a-d	5.17 b-j
VA 98R	2.44 d-j	1.39 b-d	92.66 a-e	2.40 i	17.37 a-e	1.42 a-d	5.15 b-j
Titan	--	--	--	--	--	--	--
VT 004152	2.66 b-e	1.19 e-h	92.14 a-e	2.28 i	18.25 a-c	1.37 a-d	5.38 b-f
VT 003200	2.76 bc	1.43 bc	89.36 d-f	3.07 i	17.01 c-f	1.21 c-e	5.65 bc
VT 024024	2.53 c-g	1.38 b-d	92.45 a-e	2.36 i	17.57 a-e	1.41 a-d	5.27 b-i
VT 024051	2.56 c-g	1.37 b-f	92.50 a-e	2.18 i	18.19 a-c	1.40 a-d	5.38 b-f
N04074FCT	2.69 b-d	1.44 bc	95.26 a-c	1.93 i	17.44 a-e	1.60 a-c	5.46 b-e
N05006	2.43 d-j	1.34 b-g	97.16 a	1.64 i	18.06 a-c	1.70 ab	4.99 e-k
N05008	2.36 f-k	1.28 c-h	94.72 a-d	1.91 i	18.17 a-c	1.54 a-c	4.96 e-k
N05024J	2.55 c-g	1.34 b-g	93.09 a-e	2.20 i	17.54 a-e	1.46 a-d	5.24 b-i
N07033oISm	2.52 c-h	1.37 b-g	76.89 i	22.31 ab	14.33 i-k	0.27 h	5.22 b-i
N07036oISmT	2.21 i-k	1.25 c-h	76.86 i	23.77 a	14.01 jk	0.25 h	4.81 h-k
N07037oISm	2.44 d-j	1.31 b-h	85.26 fg	5.11 g-i	15.91 f-h	0.93 ef	5.17 b-j
N08069oIJCT	2.35 f-k	1.39 b-e	88.15 ef	4.63 hi	15.56 g-i	1.14 d-f	5.00 e-k
N08070oIJC	2.19 jk	1.37 b-d	80.48 g-i	11.73 e-g	13.57 jk	0.53 gh	4.73 i-k
N08071oIJC	2.13 k	1.26 c-h	80.30 g-i	12.45 d-f	13.62 jk	0.51 gh	4.53 k
N08072oICT	2.36 f-k	1.43 bc	78.31 i	15.65 b-f	14.17 jk	0.37 gh	5.11 c-j
N08073oICT	2.30 g-k	1.41 b-d	79.03 hi	14.46 c-f	13.64 jk	0.41 gh	4.96 e-k
N08074oIC	2.37 f-j	1.37 b-d	84.02 f-h	14.73 c-f	14.81 h-j	0.75 fg	5.00 e-k
N08075oICT	2.24 h-k	1.30 b-h	78.75 hi	16.39 b-f	13.37 k	0.37 gh	4.78 i-k
N08081oIJC	2.20 jk	1.17 f-h	79.20 hi	17.19 a-e	13.89 jk	0.42 gh	4.66 jk
N08082oIJCT	2.28 g-k	1.24 c-h	78.78 hi	15.18 c-f	13.85 jk	0.40 gh	4.83 g-k
N08085oIJCT	2.32 f-k	1.32 b-h	77.83 i	19.88 a-c	13.87 jk	0.32 h	4.95 e-k
N08087oIJCT	2.29 g-k	1.30 b-h	77.68 i	20.53 a-c	13.80 jk	0.30 h	4.88 f-k
SPT 06-06	3.76 a	1.66 a	91.67 b-e	2.21 i	18.56 a	1.34 a-d	6.80 a
SPT 06-07	3.57 a	1.50 ab	91.35 c-e	2.28 i	18.49 ab	1.33 b-d	6.49 a
97x22-HO2-2-B2-1-1-2B	2.85 b	1.12 h	78.33 i	10.35 f-h	16.48 e-g	0.46 gh	5.66 b
Mean	2.52	1.33	86.97	8.40	16.12	1.00	5.19
LSD_{0.05}²	0.28	0.21	5.47	6.75	1.26	0.39	0.55

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 Tidewater AREC (Suffolk), VA Planting Date 2, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	9.82 b-d ²	2.65 i-o	52.43 d-h	28.96 a-f	1.21 l-n	1.16 k-n
Gregory	8.90 e-g	2.950 de	56.26 de	25.40 e-g	1.38 c-e	1.23 kl
Perry	9.47 c-f	3.01 d	51.62 e-h	29.56 a-e	1.38 cd	1.11 no
CHAMPS	9.49 c-f	2.82 d-j	53.76 d-g	27.49 b-g	1.33 c-g	1.21k-m
Phillips	9.87 bc	2.82 d-j	50.57 f-h	30.42 a-c	1.30 f-k	1.15 k-n
Bailey	9.56 c-e	2.61 j-o	51.32 e-h	30.03 a-d	1.30 f-k	1.21 kl
Georgia 08V	6.24 h-j	2.75 e-k	80.20 a	3.80k	1.31 d-j	1.64 b-d
Florida Fancy	5.96 j	2.72 f-l	80.04 a	4.30.k	1.33 c-g	1.62 c-e
Sugg	9.19 c-f	2.56 k-o	52.42 d-h	29.43 a-e	1.28 g-l	1.21 k-m
VA 98R	9.55 c-e	2.71 g-l	54.42 d-f	27.05 c-g	1.24 j-m	1.21 kl
Titan	8.72 fg	3.57 b	55.48 d-f	25.78 d-g	1.52 b	1.14 l-n
VT 004152	9.50 c-e	3.36 bc	53.36 d-h	27.56 b-g	1.50 b	0.98 p
VT 003200	9.21 c-f	2.90 d-h	54.28 d-f	26.91 c-g	1.39 c	1.18 k-n
VT 024024	9.48 c-f	2.92 d-g	52.96 d-h	28.44 a-g	1.36 c-f	1.12 m-o
VT 024051	9.90 a-c	3.25 c	52.83 d-h	27.94 a-g	1.36 c-f	1.03 op
N04074FCT	9.15 c-f	2.98 d	53.26 d-g	28.05 a-g	1.32 c-h	1.24 jk
N05006	10.64 a	2.49 m-p	48.86 gh	31.80 ab	1.19 mn	1.17 k-n
N05008	10.54 ab	2.92 d-f	48.33 h	32.04 a	1.33 c-g	1.03op
N05024J	9.05 d-g	2.90 d-h	57.60 cd	24.14 g	1.32 d-i	1.21 kl
N07033oISm	6.04 ij	2.90 d-h	77.99 a	6.30 jk	1.36 c-f	1.62 c-e
N07036oISmT	5.77 j	3.03 d	81.20 a	3.36 k	1.36 c-f	1.63 b-d
N07037oISm	6.77 hi	2.93 d-f	72.57 b	11.37 i	1.33 c-g	1.46 gh
N08069oIJCT	9.40 c-f	2.57 k-o	54.56 d-f	27.22 c-g	1.25 h-m	1.23 kl
N08070oIJC	6.11 ij	2.31 pq	79.08 a	6.30 jk	1.11 o	1.67 bc
N08071oIJC	6.01 ij	2.14 q	80.09 a	5.22 k	1.09 o	1.78 a
N08072oICT	6.09 ij	2.44 op	79.74 a	5.47 k	1.15 no	1.64 b-d
N08073oICT	5.75 j	2.69 h-m	81.31 a	3.68 k	1.24 k-m	1.66 bc
N08074oIC	5.88 j	2.67 j-n	80.50 a	4.43 k	1.24 j-m	1.62 c-e
N08075oICT	5.84 j	2.47 n-p	79.45 a	5.43 k	1.24 k-m	1.72 ab
N08081oIJC	5.92 j	2.86 d-i	81.00 a	3.94 k	1.30 f-k	1.51 fg
N08082oIJCT	5.99 j	2.70 g-m	79.78 a	5.03 k	1.29 f-k	1.55 d-g
N08085oIJCT	6.14 ij	2.53 l-p	79.84 a	4.99 k	1.24 l-m	1.60 c-f
N08087oIJCT	6.10 ij	2.72 f-l	79.14 a	5.83 k	1.25 i-m	1.53 e-g
SPT 06-06	8.36 g	2.63 j-o	62.01 c	19.65 h	1.31 e-k	1.50 g
SPT 06-07	9.23 c-f	2.55 k-o	55.53 d-f	24.74 fg	1.38 cd	1.41 hi
97x22-HO2-2-B2-1-1-2B	6.98 h	3.80 a	71.86 b	10.42 ij	1.59 a	1.33 ij
Mean	7.96	2.80	64.88	17.85	1.31	1.37
LSD_{0.05}²	0.77	0.22	5.21	4.44	0.07	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 23. 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 Planting Date 2, 2010¹ (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
NC-V 11	2.39 e-n ²	1.38 b-d	96.18 a-d	1.86 j	17.44 b-e	1.66 a-c	4.98 e-j
Gregory	2.54 d-k	1.34 b-f	93.35 d-f	2.23 ij	17.11 d-f	1.48 b-e	5.26 c-f
Perry	2.55 d-k	1.30 c-h	96.47 a-d	1.75 j	17.70 a-e	1.67 a-c	5.22 c-g
CHAMPS	2.56 d-i	1.34 b-f	94.80 b-f	1.97 j	17.55 b-e	1.56 a-e	5.24 c-f
Phillips	2.56 d-j	1.33 b-g	97.08 a-c	1.66 j	17.86 a-d	1.70 ab	5.18 c-g
Bailey	2.58 c-g	1.38 b-d	97.11 a-c	1.71 j	17.43 b-e	1.72 a	5.26 c-f
Georgia 08V	2.65 c-e	1.42 a-d	76.84 k	21.20 a-c	14.36 gh	0.26 ij	5.39 c-e
Florida Fancy	2.64 c-f	1.39 b-d	77.59 jk	20.28 a-e	14.03 g-j	0.31 ij	5.35 c-f
Sugg	2.61 c-g	1.31 b-g	97.02 a-c	1.79 j	16.94 ef	1.74 a	5.19 c-g
VA 98R	2.40 e-n	1.42 a-d	94.62 c-f	2.08 j	17.31 c-e	1.56 a-e	5.05 e-i
Titan	2.52 d-l	1.27 d-h	93.27 d-f	2.16 j	17.60 b-e	1.46 c-e	5.31 c-f
VT 004152	2.57 c-h	1.18 gh	94.39 c-f	1.94 j	18.11 a-c	1.52 a-e	5.25 c-f
VT 003200	2.77 cd	1.36 b-e	94.22 c-f	2.02 j	17.63 b-e	1.52 a-e	5.52 b-d
VT 024024	2.46 e-n	1.27 d-h	95.69 a-d	1.87 j	17.48 b-e	1.63 a-d	5.09 d-h
VT 024051	2.41 e-n	1.28 d-h	94.65 c-f	1.89 j	18.20 a-c	1.54 a-e	5.05 e-i
N04074FCT	2.62 c-g	1.38 b-d	95.37 a-e	1.90 j	17.45 b-e	1.61 a-d	5.32 c-f
N05006	2.46 e-n	1.38 b-d	98.02 a	1.54 j	18.17 a-c	1.75 a	5.04 e-i
N05008	2.45 e-n	1.36 b-e	97.86 ab	1.51 j	18.61 a	1.72 a	5.14 d-g
N05024J	2.49 d-m	1.29 c-h	92.32 ef	2.45 ij	17.04 d-f	1.41 de	5.09 d-h
N07033oISm	2.38 e-o	1.41 a-d	79.27 i-k	16.80 c-g	14.09 g-i	0.44 h-j	5.15 c-g
N07036oISmT	2.28 j-o	1.37 b-e	76.94 k	24.18 a	13.80 g-k	0.24 j	5.01 e-i
N07037oISm	2.27 l-o	1.30 c-h	83.26 h	7.44 hi	14.60 g	0.77 g	4.90 f-j
N08069oIJCT	2.42 e-n	1.36 b-e	95.04 a-e	2.02 j	16.99 d-f	1.60 a-d	5.02 e-i
N08070oIJC	2.09 o	1.32 b-g	80.23 h-j	13.37 g	12.96 k	0.48 hi	4.53 j
N08071oIJC	2.24 l-o	1.44 a-c	79.33 i-k	15.42 e-g	12.91 k	0.40 h-j	4.77 g-j
N08072oICT	2.17 no	1.29 c-h	79.35 i-k	16.10 c-g	13.15 jk	0.41 h-j	4.61 ij
N08073oICT	2.29 h-o	1.38 b-d	77.61 jk	22.10 ab	13.35 i-j	0.28 ij	4.90 f-j
N08074oIC	2.27 j-o	1.40 a-d	78.19 i-k	18.77b-f	13.45 i-k	0.33 ij	4.90 f-i
N08075oICT	2.40 e-n	1.46 ab	79.09 i-k	15.69 d-g	13.39 i-k	0.40 h-i	5.09 d-h
N08081oIJC	2.27 j-o	1.19 f-g	77.68 jk	20.80 a-d	13.55 h-k	0.29 ij	4.76 g-j
N08082oIJCT	2.35 f-o	1.31 b-g	78.55 i-k	16.54 c-g	13.64 h-k	0.37 ij	4.94 e-j
N08085oIJCT	2.34 g-o	1.33 b-g	78.57 i-k	16.03 c-g	13.57 h-k	0.37 ij	4.91 f-j
N08087oIJCT	2.21 m-o	1.22 e-h	79.37 i-k	13.98 fg	13.50 h-k	0.43 h-j	4.68 h-j
SPT 06-06	3.10 b	1.44 a-c	88.55 g	4.83 h-i	16.84 ef	1.12 f	5.85 b
SPT 06-07	3.63 a	1.55 a	91.71 fg	2.25 ij	18.33 ab	1.35 ef	6.55 a
97x22-HO2-2-B2-1-1-2B	2.86 bc	1.53 h	80.90 hi	8.05 h	16.39 f	0.63 gh	5.61 bc
Mean	2.49	1.34	87.79	8.56	15.90	1.05	5.14
LSD_{0.05}²	0.29	0.15	3.21	5.23	0.91	0.23	0.46

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 Tidewater AREC (Suffolk), VA Planting Date 3, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.12 bc ²	2.61 j-m	49.17 l-n	31.94 a-c	1.19 n-p	1.15 jk
Gregory	8.86 i-k	3.01 c-e	55.49 ef	26.26 h-j	1.36 c-e	1.20 jk
Perry	9.54 ef	2.98 c-g	50.36 k-m	30.69 b-d	1.37 cd	1.14 jk
CHAMPS	9.93 cd	2.81 e-j	51.88 i-k	29.24 d-f	1.28 g-l	1.17 jk
Phillips	9.45 e-g	2.82 d-j	52.11 h-k	29.12 d-f	1.31 e-j	1.21 jk
Bailey	9.43 e-h	2.61 j-m	52.22 h-k	29.47 de	1.27 h-l	1.21 j
Georgia 08V	6.37 lm	3.00 c-f	79.68 ab	4.12 lm	1.34 d-f	1.57 d-f
Florida Fancy	5.92 o-q	2.79 e-j	79.72 ab	4.22 lm	1.36 c-e	1.72 ab
Sugg	9.15 g-i	2.69 i-k	52.37 h-k	29.52 de	1.29 f-k	1.21 j
VA 98R	10.02 c	2.89 d-i	51.46 j-l	29.71 de	1.24 k-n	1.14 jk
Titan	8.64 k	3.34 b	56.51 de	25.34 ij	1.41 bc	1.18 jk
VT 004152	9.43 e-h	3.33 b	52.58 g-k	28.27 e-h	1.46 b	1.04 l
VT 003200	9.11 h-j	2.96 c-h	54.43 e-h	26.90 g-i	1.38 cd	1.17 jk
VT 024024	9.41 e-g	3.14 bc	52.39 h-k	28.66 d-g	1.42 bc	1.13 k
VT 024051	9.68 de	3.37 b	54.37 e-h	26.64 g-j	1.37 c-e	1.02 l
N04074FCT	9.27 f-h	2.76 f-j	51.49 j-l	29.85 c-e	1.28 g-l	1.32 i
N05006	10.68 a	2.57 j-o	47.53 n	33.01 a	1.19 n-p	1.21 jk
N05008	10.41 ab	2.79 e-j	48.14 mn	32.38 ab	1.28 g-l	1.13 jk
N05024J	9.53 ef	2.96 c-h	54.12 e-i	27.30 f-i	1.32 d-i	1.15 jk
N07033oISm	6.05 m-p	2.88 d-i	78.95 ab	5.82 lm	1.29 f-k	1.60 c-e
N07036oISmT	5.77 pq	2.97 c-h	80.27 ab	4.39 lm	1.33 d-h	1.63 cd
N07037oISm	6.41 l	3.07 cd	75.40 c	8.69 k	1.34 d-g	1.50 fg
N08069oIJCT	8.79 jk	2.33 op	57.93 d	24.66 j	1.17 o-q	1.37 hi
N08070oIJC	6.03 n-p	2.35 n-p	80.13 ab	5.32 lm	1.12 q	1.64 b-d
N08071oIJC	5.99 n-p	2.37 m-p	79.94 ab	5.27 lm	1.14 pq	1.72 ab
N08072oICT	5.92 o-q	2.73 g-k	79.29 ab	5.76 lm	1.22 l-o	1.57 d-f
N08073oICT	5.77 pq	2.73 h-k	80.45 ab	4.50 lm	1.24 k-n	1.63 cd
N08074oIC	5.95 op	2.58 j-n	80.16 ab	5.06 lm	1.19 n-p	1.62 cd
N08075oICT	5.60 q	2.50 k-p	81.31 a	4.05 m	1.21 m-o	1.74 a
N08081oIJC	5.80 pq	2.64 i-l	80.44 ab	4.62 lm	1.26 i-m	1.62 cd
N08082oIJCT	5.87 o-q	2.68 i-k	80.40 ab	4.67 lm	1.26 j-m	1.60 c-e
N08085oIJCT	6.19 l-o	2.49 k-p	78.87 b	5.78 lm	1.24 k-n	1.66 a-c
N08087oIJCT	6.02 n-p	2.68 i-k	80.19 ab	4.97 lm	1.22 l-o	1.52 e-g
SPT 06-06	9.39 e-h	2.30 p	53.77 f-j	26.63 g-j	1.27 h-l	1.51 fg
SPT 06-07	9.31 f-h	2.40 l-p	54.83 e-g	25.72 ij	1.31 e-j	1.44 gh
97x22-HO2-2-B2-1-1-2B	6.30 l-n	4.17 a	76.32 c	6.22 l	1.67 a	1.38 hi
Mean	7.50	2.81	64.57	18.19	1.30	1.38
LSD_{0.05}²	0.33	0.25	2.43	2.14	0.06	0.08

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 24. 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 Planting Date 3, 2010¹ (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
NC-V 11	2.41 f-k ²	1.40 a-d	98.52 ab	1.54 f	17.74 c-g	1.80 ab	5.00 d-l
Gregory	2.51 d-i	1.31 c-i	94.15 g-i	2.12 f	17.05 i-k	1.54 f-i	5.18 d-i
Perry	2.59 c-g	1.32 c-h	97.37 a-c	1.64 f	17.81 b-g	1.72 a-d	5.29 b-f
CHAMPS	2.46 e-k	1.23 e-i	96.19 c-f	1.77 f	17.71 c-g	1.65 c-f	4.97 d-m
Phillips	2.60 c-f	1.37 b-f	96.21 c-f	1.80 f	17.56 d-h	1.66 c-e	5.28 b-g
Bailey	2.48 e-j	1.31 d-i	96.91 b-d	1.77 f	17.10 h-k	1.72 a-d	5.06 c-k
Georgia 08V	2.57 c-h	1.33 c-h	77.23 mn	20.47 a	14.62 m	0.28 m	5.24 b-h
Florida Fancy	2.77 bc	1.50 ab	76.92 n	20.27 a	14.33 m	0.29 lm	5.62 b
Sugg	2.52 d-i	1.23 e-i	97.14 b-d	1.78 f	16.89 k	1.75 a-c	5.05 d-k
VA 98R	2.27 k-n	1.27 d-i	96.63 c-e	1.73 f	17.68 c-g	1.68 b-e	4.77 k-n
Titan	2.41 f-k	1.16 ij	93.42 hi	2.24 f	16.97 jk	1.49 g-i	4.99 d-m
VT 004152	2.64 c-e	1.26 d-i	95.01 e-h	1.87 f	18.11 a-c	1.56 e-h	5.35 b-d
VT 003200	2.70 b-d	1.35 b-g	94.33 g-i	2.02 f	17.50 e-i	1.54 f-i	5.43 bc
VT 024024	2.53 d-i	1.33 c-h	95.59 d-g	1.83 f	17.82 b-f	1.61 d-g	5.28 b-g
VT 024051	2.36 h-l	1.19 h-j	93.70 hi	2.05 f	17.98 a-e	1.48 hi	4.92 f-m
N04074FCT	2.66 b-e	1.37 b-f	97.03 b-d	1.74 f	17.34 g-k	1.72 a-d	5.31 b-e
N05006	2.46 e-k	1.34 c-h	99.00 a	1.44 f	18.26 ab	1.81 a	5.00 d-l
N05008	2.50 d-i	1.38 a-f	98.37 ab	1.49 f	18.35 a	1.77 a-c	5.16 c-j
N05024J	2.40 f-k	1.21 g-j	94.73 f-h	1.98 f	17.44 f-i	1.57 e-h	4.94 e-m
N07033oISm	2.19 l-n	1.22 f-j	79.25 k	15.16 b-d	13.63 no	0.43 k	4.70 k-n
N07036oISmT	2.28 j-n	1.34 c-h	77.93 k-n	18.86 ab	13.70 n	0.32 k-m	4.96 d-m
N07037oISm	2.27 k-n	1.32 c-h	81.07 j	8.92 e	14.41 m	0.60 j	4.93 e-m
N08069oIJCT	2.37 h-l	1.38 a-e	93.61 hi	2.36 f	16.05 l	1.54 f-i	4.93 f-m
N08070oIJC	2.09 n	1.31 d-i	79.42 jk	15.27 b-d	12.91 q	0.41 kl	4.52 n
N08071oIJC	2.18 l-n	1.41 a-d	79.23 k	15.38 b-d	13.07 pq	0.40 k-m	4.72 k-n
N08072oICT	2.18 l-n	1.33 c-h	79.41 k	13.97 cd	13.38 n-q	0.43 k	4.73 k-n
N08073oICT	2.26 k-n	1.40 a-d	78.28 k-n	18.13 a-c	13.41 n-p	0.34 k-m	4.90 g-n
N08074oIC	2.15 mn	1.30 d-i	78.97 kl	16.30 a-d	13.17 o-q	0.39 k-m	4.64 l-n
N08075oICT	2.28 j-n	1.33 c-h	78.31 k-n	20.41 a	12.90 q	0.31 k-m	4.81 i-n
N08081oIJC	2.32 i-m	1.29 d-i	78.47 k-n	17.60 a-d	13.32 n-q	0.35 k-m	4.87 h-n
N08082oIJCT	2.27 k-n	1.25 d-i	78.49 k-n	17.31 a-d	13.34 n-q	0.35 k-m	4.78 j-n
N08085oIJCT	2.39 g-l	1.38 a-e	79.16 k	14.69 b-d	13.68 n	0.42 k	5.00 d-l
N08087oIJCT	2.18 l-n	1.20 g-j	78.78 k-m	16.23 a-d	13.31 n-q	0.37 k-m	4.61 mn
SPT 06-06	3.60 a	1.53 a	93.56 hi	2.02 f	18.09 a-c	1.47 hi	6.40 a
SPT 06-07	3.51 a	1.47 a-c	92.85 i	2.13 f	18.01 a-d	1.43 i	6.28 a
97x22-HO2-2-B2-1-1-2B	2.86 b	1.07 j	77.50 l-n	13.42 d	16.08 l	0.38 k-m	5.61 b
Mean	2.48	1.32	88.13	8.33	15.85	1.07	5.09
LSD_{0.05}²	0.21	0.16	1.66	4.27	0.48	0.12	0.38

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. Averages of all planting dates from Tidewater AREC (Suffolk), VA , 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	9.98 bc ²	2.73 h-l	51.16 i-k	29.95 a-c	1.23 o-q	1.15 lm
Gregory	8.89 ij	3.06 cd	55.93 e-g	25.66 f-h	1.40 cd	1.20 kl
Perry	9.47 d-g	2.96 c-f	52.27 h-j	29.05 a-e	1.36 c-h	1.14 lm
CHAMPS	9.73 cd	2.87 e-i	52.99 g-i	28.15 c-f	1.32 f-k	1.19 kl
Phillips	9.71 c-e	2.86 e-i	51.58 i-k	29.50 a-e	1.31 h-l	1.18 kl
Bailey	9.55 c-f	2.62 k-p	51.82 i-k	29.72 a-d	1.28 j-o	1.20 kl
Georgia 08V	6.38 lm	2.98 c-e	79.45 ab	4.22 l	1.36 c-h	1.58 c-e
Florida Fancy	6.01 mn	2.84 e-j	79.80 ab	4.26 l	1.36 c-h	1.64 bc
Sugg	9.04 g-j	2.67 j-o	53.93 f-i	28.00 c-f	1.30 i-l	1.22 jk
VA 98R	9.61 c-f	2.85 e-j	54.15 f-i	27.21 c-g	1.26 k-p	1.19 kl
Titan	8.68 j	3.46 b	56.00 e-g	25.56 f-h	1.47 b	1.16 kl
VT 004152	9.41 d-h	3.42 b	53.84 f-i	26.99 d-g	1.50 b	1.02 o
VT 003200	8.86 ij	2.99 c-e	56.55 ef	24.85 gh	1.41 c	1.22 jk
VT 024024	9.40 d-h	0.01 c-e	53.91 f-i	27.31 c-g	1.38 c-e	1.16 kl
VT 024051	9.68 c-e	3.33 b	54.15 f-i	26.69 e-g	1.39 cd	1.05 no
N04074FCT	9.19 f-i	2.85 e-i	52.71 g-i	28.61 b-e	1.31 g-l	1.27 ij
N05006	10.60 a	2.55 m-p	48.80 k	31.84 a	1.20 q	1.19 kl
N05008	10.40 ab	2.90 c-h	49.36 jk	31.16 ab	1.31 g-l	1.09 mn
N05024J	9.31 d-i	2.94 c-g	55.83 fg	25.65 f-h	1.33 e-j	1.18 kl
N07033oISm	6.09 mn	2.89 d-h	78.91 ab	5.50 j-l	1.33 e-j	1.61 cd
N07036oISmT	5.85 n	3.07 cd	80.81 a	3.74 l	1.35 d-i	1.61 cd
N07037oISm	6.89 k	3.08 c	71.93 d	11.67 i	1.36 c-g	1.43 gh
N08069oIJCT	8.71 j	2.51 o-q	59.21 e	23.27 h	1.23 pq	1.33 i
N08070oIJC	6.19 l-n	2.36 qr	78.96 ab	6.27 j-l	1.13 r	1.63 bc
N08071oIJC	6.21 l-n	2.32 r	79.26 ab	5.84 j-l	1.12 r	1.70 ab
N08072oICT	6.03 mn	2.72 h-m	79.34 ab	5.51 j-l	1.23 n-q	1.59 c-e
N08073oICT	5.83 n	2.70 i-n	80.47 ab	4.46 kl	1.24 m-q	1.63 c
N08074oIC	6.32 lm	2.64 l-p	77.31 bc	7.32 jk	1.23 o-q	1.57 c-e
N08075oICT	5.79 n	2.54 n-q	80.24 ab	4.83 kl	1.23 m-q	1.70 a
N08081oIJC	6.04 mn	2.78 f-k	80.02 ab	4.86 kl	1.28 j-n	1.53 ef
N08082oIJCT	6.01 mn	2.74 h-l	79.78 ab	5.07 kl	1.28 j-m	1.54 d-f
N08085oIJCT	6.14 mn	2.61 k-p	79.60 ab	5.07 kl	1.26 l-p	1.62 c
N08087oIJCT	6.05 mn	2.77 g-k	79.93 ab	5.00 kl	1.26 l-p	1.53 ef
SPT 06-06	9.00 h-j	2.48 p-r	59.94 ef	23.74 h	1.32 f-k	1.50 fg
SPT 06-07	9.26 e-i	2.57 l-p	55.33 f-h	24.98 gh	1.37 c-f	1.42 h
97x22-HO2-2-B2-1-1-2B	6.63 kl	4.06 a	74.29 cd	8.07 j	1.65 a	1.33 i
Mean	7.97	2.85	64.94	17.73	1.31	1.37
LSD_{0.05}²	0.46	0.18	3.29	2.89	0.54	0.07

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 all planting dates from Tidewater AREC (Suffolk), VA, 2010¹ (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
NC-V 11	2.40 h-o ²	1.39 cd	96.79 a-c	1.73 j	17.74 b-e	1.69 a-c	5.03 h-n
Gregory	2.54 d-h	1.33 c-i	93.49 f-h	2.19 j	17.21 ef	1.49 d-g	5.26 d-h
Perry	2.49 f-k	1.26 g-k	96.17 a-d	1.86 j	17.54 de	1.65 a-c	5.11 f-l
CHAMPS	2.50 e-j	1.26 h-k	95.27 b-f	1.89 j	17.67 c-e	1.59 b-e	5.07 h-m
Phillips	2.55 d-h	1.32 d-i	96.38 a-d	1.75 j	17.75 b-e	1.66 a-c	5.17 e-j
Bailey	2.50 e-j	1.31 d-j	96.99 ab	1.75 j	17.26 ef	1.72 ab	5.09 h-m
Georgia 08V	2.65 c-e	1.39 cd	76.88 l	19.93 ab	14.76 ij	0.29 lm	5.40 b-e
Florida Fancy	2.67 cd	1.42 bc	77.30 l	19.79 a-c	14.30 jk	0.30 lm	5.45 b-d
Sugg	2.56 d-g	1.28 f-k	95.84 b-e	2.05 j	16.85 fg	1.66 a-c	5.14 e-k
VA 98R	2.37 i-q	1.36 c-g	94.64 c-g	2.07 j	17.45 de	1.55 c-f	4.99 h-o
Titan	2.46 g-l	1.22 jk	93.35 f-i	2.20 j	17.28 d-f	1.48 e-g	5.15 e-k
VT 004152	2.62 c-f	1.21 kl	93.85 e-h	2.03 j	18.16 a-c	1.49 e-g	5.33 c-g
VT 003200	2.74 bc	1.38 c-e	92.64 g-i	2.37 j	17.38 d-f	1.42 f-h	5.53 bc
VT 024024	2.51 e-i	1.33 c-i	94.58 d-g	2.02 j	17.62 c-e	1.55 c-f	5.21 d-i
VT 024051	2.44 g-n	1.28 e-k	93.62 f-h	2.04 j	18.12 a-c	1.47 e-g	5.12 f-l
N04074FCT	2.66 cd	1.39 cd	95.89 a-e	1.86 j	17.41 de	1.64 a-d	5.36 b-f
N05006	2.45 g-m	1.35 c-h	98.06 a	1.54 j	18.16 a-c	1.75 a	5.01 h-n
N05008	2.45 g-n	1.34 c-h	97.27 ab	1.60 j	18.40 a	1.69 a-c	5.10 f-l
N05024J	2.48 f-k	1.28 e-k	93.38 f-i	2.21 j	17.34 d-f	1.48 e-g	5.09 f-l
N07033oISm	2.34 k-q	1.33 c-i	78.67 kl	17.56 b-e	13.97 kl	0.39 j-m	5.00 h-o
N07036oISmT	2.26 o-s	1.32 d-i	77.24 l	22.27 a	13.84 kl	0.27 m	4.93 j-p
N07037oISm	2.33 l-r	1.31 d-j	83.20 j	7.16 i	14.97 i	0.77 i	5.00 h-n
N08069oIJCT	2.38 i-p	1.38 c-e	92.27 hi	3.00 j	16.20 h	1.42 f-h	4.98 i-o
N08070oIJC	2.12 s	1.34 c-i	80.05 k	13.46 gh	13.14 n	0.48 jk	4.59 q
N08071oIJC	2.18 rs	1.37 c-f	79.62 k	14.42 fg	13.20 mn	0.44 j-l	4.67 pq
N08072oICT	2.24 p-s	1.35 c-h	79.03 kl	15.24 e-g	13.56 l-n	0.41 j-m	4.82 m-q
N08073oICT	2.28 o-r	1.39 cd	78.22 kl	18.70 b-d	13.44 l-n	0.33 k-m	4.91 j-o
N08074oIC	2.26 o-s	1.36 c-h	80.39 k	16.60 d-f	13.81 kl	0.49 j	4.85 l-q
N08075oICT	2.30 m-r	1.36 c-g	78.72 kl	17.50 b-e	13.22 mn	0.36 j-m	4.89 k-p
N08081oIJC	2.27 o-s	1.22 jk	78.45 kl	18.53 b-d	13.58 l-n	0.35 j-m	4.76 n-q
N08082oIJCT	2.30 n-r	1.27 g-k	78.61 kl	16.34 d-g	13.61 l-n	0.37 j-m	4.85 l-q
N08085oIJCT	2.35 j-q	1.34 c-h	78.52 kl	16.87 c-f	13.71 lm	0.37 j-m	4.95 i-o
N08087oIJCT	2.23 q-s	1.24 i-k	78.61 kl	16.92 c-f	13.54 l-n	0.37 j-m	4.72 o-q
SPT 06-06	3.49 a	1.55 a	91.26 i	3.02 j	17.83 b-d	1.31 h	6.35 a
SPT 06-07	3.57 a	1.50 ab	91.97 hi	2.22 j	18.28 ab	1.37 gh	6.44 a
97x22-HO2-2-B2-1-1-2B	2.86 b	1.12 l	78.91 kl	10.61 h	16.32 gh	0.49 j	5.63 b
Mean	2.50	1.33	87.65	8.43	15.96	1.04	5.14
LSD_{0.05}²	0.15	0.10	2.18	3.00	0.55	0.16	0.27

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 Southampton County, VA, 2010.¹

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.68 ab ²	2.55 j-l	50.16 ij	30.84 ab	1.18 r	1.15 i-k
Gregory	9.47 d-f	3.08 c-i	52.75 e-i	28.13 a-d	1.41 b-h	1.19 h-k
Perry	9.52 d-f	3.08 c-i	51.61 h-j	29.15 a-c	1.44 b-f	1.16 i-k
CHAMPS	9.74 b-f	3.07 c-i	53.00 e-i	27.55 b-e	1.39 c-j	1.24 h-j
Phillips	9.69 b-f	2.85 d-k	50.88 ij	29.94 ab	1.34 g-n	1.22 h-j
Bailey	10.12 a-d	3.09 c-h	50.77 ij	29.88 ab	1.38 d-k	1.05 k
Georgia 08V	6.23 h-j	3.32 cd	80.35 a	2.97 i	1.47 b-d	1.58 a-d
Florida Fancy	6.29 h-j	2.93 d-j	77.82 ab	5.56 hi	1.43 b-g	1.66 ab
Sugg	9.50 d-f	2.85 d-k	52.77 e-i	28.72 a-d	1.33 g-n	1.11 jk
VA 98R	10.25 a-c	2.92 d-j	50.46 ij	30.21 ab	1.27 l-r	1.14 i-k
Titan	8.11 g	3.85 ab	58.04 d	22.86 f	1.61 a	1.34 f-h
VT 004152	9.59 c-f	3.34 cd	52.35 f-j	28.30 a-d	1.49 b	1.04 k
VT 003200	9.27 ef	3.02 d-j	52.93 e-i	27.81 b-d	1.44 b-f	1.26 h-j
VT 024024	9.82 b-e	3.25 c-f	52.06 g-j	28.62 a-d	1.41 b-h	1.15 i-k
VT 024051	9.30 ef	3.32 cd	55.61 d-h	25.34 d-f	1.41 b-h	1.14 i-k
N04074FCT	9.23 ef	3.30 c-e	51.52 ij	29.27 a-c	1.40 b-i	1.22 h-j
N05006	10.60 a	2.82 e-l	52.57 e-j	28.24 a-d	1.22 o-r	1.17 i-k
N05008	10.62 a	3.16 c-h	48.55 j	31.40 a	1.39 c-j	1.06 k
N05024J	9.72 b-f	2.87 d-k	52.47 f-j	28.22 a-d	1.36 e-l	1.26 h-j
N07033olSm	5.69 j	3.20 c-g	80.80 a	3.29 hi	1.45 b-e	1.69 a
N07036olSmT	5.87 ij	3.30 c-e	80.63 a	3.40 hi	1.42 b-h	1.63 ab
N07037olSm	6.80 h	3.55 bc	72.09 c	11.00 g	1.46 b-d	1.43 d-g
N08069olJCT	9.28 ef	2.42 kl	56.18 d-f	25.95 c-f	1.20 p-r	1.28 g-i
N08070olJC	6.39 h-j	2.60 i-l	78.98 ab	5.89 hi	1.19 qr	1.56 a-e
N08071olJC	6.13 h-j	2.70 h-l	80.16 a	4.65 hi	1.21 o-r	1.60 a-c
N08072olICT	5.87 ij	2.98 d-j	80.55 a	4.09 hi	1.29 j-p	1.60 a-c
N08073olICT	6.09 h-j	2.73 g-l	79.10 ab	5.60 hi	1.24 n-r	1.61 ab
N08074olC	6.00 ij	2.77 f-l	79.57 ab	5.01 hi	1.26 m-r	1.67 a
N08075olICT	5.87 ij	2.78 f-l	79.78 a	4.70 hi	1.31 i-o	1.71 a
N08081olJC	6.45 hi	2.90 d-k	77.88 ab	6.55 h	1.30 i-o	1.45 c-f
N08082olJCT	6.31 h-j	3.14 c-h	79.04 ab	5.32 hi	1.35 f-m	1.42 d-g
N08085olJCT	6.00 ij	3.00 d-j	81.18 a	3.45 hi	1.36 e-l	1.50 b-e
N08087olJCT	6.22 h-j	2.94 d-j	79.05 ab	5.59 hi	1.28 k-q	1.51 b-e
SPT 06-06	9.09 f	2.34 l	56.62 de	23.59 f	1.32 h-n	1.61 a-c
SPT 06-07	9.11 ef	2.92 d-j	55.85 d-g	24.05 ef	1.48 bc	1.43 d-g
97x22-HO2-2-B2-1-1-2B	6.57 hi	4.07 a	75.52 bc	6.69 h	1.66 a	1.42 e-g
Mean	8.09	3.03	64.43	17.83	1.36	1.37
LSD_{0.05}²	0.72	0.49	4.06	3.54	0.10	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 26. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Southampton County, VA, 2010¹ (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
NC-V 11	2.34 j-o ²	1.41 c-f	97.46 a	1.63 h	17.85 cd	1.73 a	4.93 j-q
Gregory	2.61 e-i	1.38 c-g	95.03 a-d	1.88 h	17.94 b-d	1.57 a-c	5.39 c-h
Perry	2.67 c-g	1.40 c-f	95.78 a-c	1.78 h	18.09 b-d	1.61 ab	5.50 b-e
CHAMPS	2.61 e-i	1.41 c-f	94.28 b-d	1.93 h	18.21 bc	1.52 bc	5.41 c-h
Phillips	2.67 c-g	1.42 c-e	96.58 a-c	1.70 h	17.96 b-d	1.67 ab	5.42 c-g
Bailey	2.40 i-n	1.33 d-i	96.24 a-c	1.71 h	18.31 a-c	1.63 ab	5.10 f-n
Georgia 08V	2.68 c-f	1.43 cd	75.49 i	27.32 a	15.11 f	0.20 h	5.57 b-d
Florida Fancy	2.85 bc	1.48 bc	77.87 g-i	14.00 ef	14.97 fg	0.37 f-h	5.76 bc
Sugg	2.49 f-j	1.24 h-j	96.00 a-c	1.84 h	17.40 d	1.65 ab	5.06 g-o
VA 98R	2.36 j-o	1.40 c-f	96.62 a-c	1.67 h	18.20 bc	1.66 ab	5.03 h-o
Titan	2.76 b-e	1.45 b-d	90.56 e	2.57 h	17.77 cd	1.28 d	5.82 b
VT 004152	2.62 d-i	1.28 f-j	94.86 a-d	1.86 h	18.31 a-c	1.55 bc	5.38 c-h
VT 003200	2.85 b-d	1.44 b-d	94.68 b-d	1.91 h	18.01 b-d	1.55 bc	5.73 bc
VT 024024	2.44 h-m	1.28 f-j	95.24 a-d	1.83 h	18.18 bc	1.58 a-c	5.12 f-n
VT 024051	2.52 f-j	1.38 c-h	92.60 de	2.24 h	17.93 b-d	1.41 cd	5.30 d-j
N04074FCT	2.65 c-h	1.43 cd	95.97 a-c	1.76 h	18.00 b-d	1.63 ab	5.48 b-f
N05006	2.19 n-p	1.21 ij	95.04 a-d	1.91 h	18.03 b-d	1.56 a-c	4.62 pq
N05008	2.45 h-l	1.39 c-f	96.97 ab	1.55 h	19.00 a	1.65 ab	5.22 d-k
N05024J	2.69 c-f	1.43 cd	95.00 a-d	1.86 h	18.06 b-d	1.57 a-c	5.48 b-f
N07033oISm	2.47 f-k	1.43 cd	76.52 hi	24.79 ab	14.23 g-i	0.24 gh	5.34 d-i
N07036oISmT	2.37 j-o	1.40 c-f	76.52 hi	23.75 a-c	14.35 gh	0.24 gh	5.18 e-k
N07037oISm	2.33 j-o	1.37 c-h	82.16 f	6.67 gh	15.50 f	0.71 e	5.15 e-m
N08069oIJCT	2.34 j-o	1.38 c-h	94.26 cd	2.17 h	16.60 e	1.56 a-c	4.91 l-q
N08070oIJC	2.09 p	1.33 d-i	79.34 g	13.75 ef	13.59 i	0.44 f	4.60 q
N08071oIJC	2.17 op	1.38 c-g	78.26 gh	17.29 d-f	13.59 i	0.34 f-h	4.76 n-q
N08072oICT	2.23 l-p	1.41 c-f	77.62 g-i	19.85 b-d	13.77 hi	0.30 f-h	4.92 l-q
N08073oICT	2.23 l-p	1.41 c-f	78.99 gh	15.26 d-f	13.70 hi	0.41 fg	4.89 l-q
N08074oIC	2.32 j-o	1.42 c-e	78.43 gh	15.91 d-f	13.76 hi	0.37 f-h	4.99 i-p
N08075oICT	2.40 i-n	1.46 b-d	78.11 g-i	18.13 c-e	13.81 hi	0.34 f-h	5.16 d-l
N08081oIJC	2.22 l-p	1.25 g-j	79.47 fg	14.93 d-f	14.12 hi	0.46 f	4.77 m-q
N08082oIJCT	2.22 l-p	1.23 ij	78.30 gh	15.39 d-f	14.23 g-i	0.37 f-h	4.79 l-q
N08085oIJCT	2.26 l-p	1.28 e-j	76.97 g-i	23.60 a-c	13.88 hi	0.25 gh	4.89 l-q
N08087oIJCT	2.22 m-p	1.21 ij	78.84 gh	14.35 d-f	13.87 hi	0.41 fg	4.70 o-q
SPT 06-06	3.75 a	1.69 a	90.82 e	2.40 h	18.19 bc	1.30 d	6.75 a
SPT 06-07	3.61 a	1.58 ab	90.81 e	2.33 h	18.68 ab	1.29 d	6.66 a
97x22-HO2-2-B2-1-1-2B	2.92 b	1.15 j	77.66 g-i	12.14 fg	16.38 e	0.41 fg	5.73 bc
Mean	2.53	1.38	87.37	8.77	16.38	1.02	5.26
LSD_{0.05}¹	0.23	0.14	2.69	5.64	0.76	0.18	0.38

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 Martin County, NC Planting Date 1, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.54 ab ²	2.58 j-n	48.25 f-h	32.24 a	1.21 k-n	1.21 k-n
Gregory	9.16 c-f	2.95 d-h	53.05 d-h	27.77 a-e	1.42 cd	1.34 h-l
Perry	9.80 a-d	2.85 d-j	50.01 f-h	30.77 a-c	1.34 d-i	1.19 l-n
CHAMPS	10.02 a-c	3.04 c-e	51.27 d-h	28.93 a-e	1.38 d-g	1.24 j-n
Phillips	9.86 a-c	2.76 e-l	49.80 f-h	30.82 a-c	1.32 e-j	1.24 j-n
Bailey	9.69 a-e	2.66 j-n	51.07 d-h	29.81 a-d	1.31 f-j	1.28 h-n
Georgia 08V	6.64 g-i	2.99 c-f	78.07 ab	4.96 hi	1.39 d-f	1.65 a-e
Florida Fancy	6.16 hi	2.83 e-k	79.02 a	4.36 hi	1.39 d-f	1.81 ab
Sugg	9.79 a-d	2.55 k-n	50.62 e-h	30.55 a-d	1.27 h-l	1.25 j-n
VA 98R	10.12 a-c	2.68 g-m	50.42 e-h	30.21 a-d	1.24 j-m	1.29 h-n
Titan	8.67 ef	3.51 b	54.97 c-g	25.52 b-f	1.58 b	1.39 g-k
VT 004152	9.69 b-e	3.27 bc	52.09 d-h	28.13 a-e	1.51 bc	1.12 n
VT 003200	9.43 c-f	3.02 c-f	52.43 d-h	28.15 a-e	1.42 cd	1.27 i-n
VT 024024	8.78 d-f	2.81 e-k	58.55 cd	22.83 ef	1.35 d-i	1.47 e-h
VT 024051	9.78 a-d	3.14 cd	51.72 d-h	28.78 a-e	1.41 c-e	1.14 mn
N04074FCT	9.74 a-d	2.92 d-i	49.56 f-h	30.78 a-c	1.35 d-i	1.29 h-n
N05006	10.73 a	2.49 l-o	47.13 h	32.98 a	1.21 k-n	1.29 h-n
N05008	10.68 ab	2.81 e-k	47.86 gh	31.99 ab	1.31 f-j	1.21 k-n
N05024J	9.09 c-f	3.03 c-e	58.09 c-e	23.07 ef	1.38 d-g	1.32 h-m
N07033oISm	7.23 g	2.92 d-i	70.56 b	12.45 g	1.35 d-i	1.56 d-g
N07036oISmT	5.87 i	3.05 c-e	80.28 a	3.84 i	1.38 d-g	1.73 a-d
N07037oISm	6.73 g-i	2.98 c-g	74.04 ab	9.40 g-i	1.36 d-h	1.64 b-e
N08069oIJCT	8.40 f	2.73 f-l	62.45 c	19.93 f	1.28 h-k	1.41 f-j
N08070oIJC	7.01 gh	2.25 o	73.43 ab	10.65 gh	1.13 n	1.71 a-d
N08071oIJC	6.46 g-i	2.37 no	77.46 ab	6.78 g-i	1.18 l-n	1.83 a
N08072oICT	6.13 hi	2.57 j-n	79.45 a	5.26 hi	1.21 k-m	1.71 a-d
N08073oICT	6.15 hi	2.39 m-o	79.02 a	5.60 hi	1.17 mn	1.81 ab
N08074oIC	6.39 g-i	2.57 j-n	77.59 ab	6.53 g-i	1.23 j-m	1.77 ab
N08075oICT	5.92 i	2.61 j-n	79.98 a	4.67 hi	1.26 i-m	1.75 a-d
N08081oIJC	6.19 hi	2.64 j-n	79.51 a	4.85 hi	1.28 h-k	1.69 a-d
N08082oIJCT	6.04 hi	2.83 e-k	76.69 a	4.63 hi	1.33 d-j	1.68 a-d
N08085oIJCT	6.31 g-i	2.48 l-o	80.17 a	4.41 hi	1.21 k-n	1.75 a-c
N08087oIJCT	6.23 g-i	2.81 e-k	78.79 a	5.69 hi	1.29 g-k	1.57 c-f
SPT 06-06	9.47 c-e	2.48 l-o	54.87 c-g	24.80 c-f	1.34 d-i	1.58 c-f
SPT 06-07	9.32 c-f	2.61 j-n	55.92 c-f	23.98 d-f	1.40 d-f	1.47 e-h
97x22-HO2-2-B2-1-1-2B	6.79 g-i	4.04 a	73.57 ab	8.17 g-i	7.10 a	1.45 f-i
Mean	8.19	2.81	63.73	18.37	1.33	1.48
LSD_{0.05}²	1.04	0.30	7.70	6.65	0.10	0.19

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 Martin County, NC Planting Date 1, 2010¹ (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
NC-V 11	2.47 i-o ²	1.50 cd	98.30 a	1.50 h	18.30 a-c	1.76 a	5.17 e-k
Gregory	2.82 c-g	1.49 cd	94.80 a-c	1.92 h	17.83 a-d	1.56 a-c	5.72 b-d
Perry	2.62 e-l	1.41 c-h	97.26 ab	1.63 h	18.02 a-d	1.71 ab	5.37 d-i
CHAMPS	2.69 c-i	1.43 c-g	95.18 a-c	1.77 h	18.56 ab	1.56 a-c	5.50 c-f
Phillips	2.73 c-h	1.46 c-f	97.19 ab	1.62 h	18.14 a-c	1.70 ab	5.51 c-f
Bailey	2.73 c-h	1.44 c-g	96.57 ab	1.72 h	17.83 a-d	1.67 ab	5.48 c-g
Georgia 08V	2.82 c-g	1.49 cd	77.03 g	16.35 a-e	15.32 f-h	0.32 gh	5.70 b-d
Florida Fancy	2.89 b-d	1.53 bc	76.95 g	18.11 ab	14.80 g-j	0.29 gh	5.81 bc
Sugg	2.65 d-j	1.32 g-i	97.44 a	1.66 h	17.58 b-d	1.74 ab	5.25 e-k
VA 98R	2.53 h-n	1.51 cd	96.70 ab	1.67 h	18.08 a-c	1.67 ab	5.28 e-j
Titan	2.92 bc	1.47 c-e	92.57 b-d	2.16 h	18.13 a-c	1.41 b-d	5.95 b
VT 004152	2.82 c-g	1.36 e-h	94.41 a-c	1.88 h	18.65 ab	1.51 a-d	5.69 b-d
VT 003200	2.85 b-f	1.44 c-g	94.85 a-c	1.86 h	18.15 a-c	1.55 a-d	5.70 b-d
VT 024024	2.69 c-i	1.52 cd	91.06 cd	3.88 h	17.14 c-e	1.28 cd	5.55 c-e
VT 024051	2.61 f-m	1.42 c-h	95.24 a-c	1.80 h	18.35 a-c	1.57 a-c	5.43 c-i
N04074FCT	2.85 b-e	1.51 cd	96.95 ab	1.62 h	18.37 a-c	1.68 ab	5.71 b-d
N05006	2.65 e-k	1.51 cd	98.69 a	1.43 h	18.59 ab	1.77 a	5.36 d-i
N05008	2.63 e-l	1.50 cd	97.53 a	1.50 h	18.93 a	1.69 ab	5.44 c-h
N05024J	2.60 g-m	1.42 c-g	90.97 cd	2.54 h	17.52 b-e	1.31 cd	5.41 d-i
N07033oISm	2.52 h-n	1.40 d-h	83.49 e	12.55 c-g	15.43 fg	0.73 e	5.27 e-j
N07036oISmT	2.41 k-o	1.45 c-f	77.06 g	21.05 a	14.15 h-j	0.27 h	5.24 e-k
N07037oISm	2.44 j-o	1.42 c-h	81.24 e-g	11.32 e-g	14.93 g-i	0.62 e-g	5.22 e-k
N08069oIJCT	2.41 l-o	1.41 c-h	89.33 d	3.83 h	16.22 ef	1.21 d	5.10 g-k
N08070oIJC	2.35 no	1.46 c-f	82.95 ef	10.98 fg	14.21 g-j	0.71 ef	4.95 jk
N08071oIJC	2.42 j-o	1.51 cd	79.80 e-g	12.38 c-g	13.93 ij	0.48 e-h	5.09 g-k
N08072oICT	2.28 o	1.41 c-h	78.78 e-g	15.25 b-f	13.59 j	0.39 f-h	4.89 jk
N08073oICT	2.38 m-o	1.50 cd	79.08 e-g	14.35 b-g	13.58 j	0.41 e-h	5.04 i-k
N08074oIC	2.44 j-o	1.48 c-e	79.43 e-g	12.08 d-g	14.12 h-j	0.46 e-h	5.16 e-k
N08075oICT	2.38 m-o	1.44 c-g	78.25 fg	17.30 a-d	13.60 j	0.34 gh	5.07 h-k
N08081oIJC	2.48 i-o	1.36 e-h	78.11 g	16.62 a-d	13.95 ij	0.35 gh	5.12 f-k
N08082oIJCT	2.45 i-o	1.34 f-h	77.88 g	17.41 a-c	14.00 ij	0.33 gh	5.13 f-k
N08085oIJCT	2.34 no	1.32 g-i	77.97 g	18.20 ab	13.67 j	0.32 gh	4.87 k
N08087oIJCT	2.32 no	1.30 hi	78.85 e-g	14.66 b-f	13.95 ij	0.41 e-h	4.91 jk
SPT 06-06	3.77 a	1.69 a	91.39 cd	2.21 h	18.75 ab	1.32 cd	6.80 a
SPT 06-07	3.66 a	1.64 ab	90.79 cd	2.33 h	18.63 ab	1.28 cd	6.70 a
97x22-HO2-2-B2-1-1-2B	3.07 b	1.20 i	78.57 fg	9.35 g	16.81 de	0.48 e-h	5.98 b
Mean	2.66	1.45	87.79	7.83	16.43	1.05	5.43
LSD_{0.05}²	0.24	0.12	4.83	5.26	1.24	0.35	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 Martin County, NC Planting Date 2, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.40 a ²	2.49 j-o	47.41 n-p	33.26 ab	1.19 l-o	1.21 n-p
Gregory	8.81 hi	3.13 bc	54.98 e-h	26.27 g-j	1.43 cd	1.31 k-n
Perry	9.77 bc	2.71 e-j	47.95 m-p	32.82 a-c	1.34 e-i	1.21 n-p
CHAMPS	9.83 b	2.77 d-i	50.92 i-n	29.82 c-f	1.32 f-j	1.25 m-o
Phillips	9.69 b-d	2.78 d-h	48.99 l-p	31.76 a-d	1.33 e-j	1.26 m-o
Bailey	9.66 b-e	2.52 h-o	50.30 k-o	31.00 b-e	1.26 j-m	1.27 mn
Georgia 08V	6.36 k-m	2.89 c-f	78.30 a	5.03 no	1.37 d-f	1.71 a-e
Florida Fancy	6.10 l-o	2.77 d-i	78.11 ab	5.34 no	1.39 d-f	1.78 ab
Sugg	9.49 b-g	2.59 g-o	51.26 i-m	30.44 b-e	1.27 h-k	1.16 o-q
VA 98R	9.54 b-f	2.67 f-m	52.88 e-k	28.44 e-i	1.24 k-n	1.28 mn
Titan	8.65 i	3.35 b	53.87 e-j	27.10 f-j	1.50 bc	1.32 j-m
VT 004152	9.40 b-g	3.35 b	52.59 f-k	28.02 e-i	1.52 b	1.08 q
VT 003200	9.29 c-h	2.87 c-f	51.71 h-l	29.25 d-g	1.38 d-f	1.25 m-o
VT 024024	9.28 c-h	2.79 d-h	52.25 g-l	28.89 d-h	1.35 e-g	1.29 l-n
VT 024051	9.79 bc	2.99 cd	51.21 i-m	29.47 d-f	1.34 e-i	1.14 pq
N04074FCT	9.18 d-h	2.62 f-n	50.41 j-o	30.65 b-e	1.29 g-k	1.40 i-k
N05006	10.71 a	2.38 no	45.92 p	34.26 a	1.19 l-o	1.30 l-n
N05008	10.41 a	2.95 c-e	47.25 op	32.77 a-c	1.35 e-h	1.16 o-q
N05024J	9.15 e-i	2.79 d-h	55.73 e-g	25.70 ij	1.32 f-j	1.29 l-n
N07033oISm	5.80 o	2.83 d-g	80.19 a	4.31 o	1.33 e-j	1.70 b-e
N07036oISmT	5.82 no	3.00 cd	79.51 a	4.58 no	1.37 d-f	1.75 a-d
N07037oISm	6.70 k	3.03 cd	72.06 c	11.42 l	1.37 d-f	1.54 g
N08069oIJCT	9.01 g-i	2.33 o	56.34 e	25.79 h-j	1.19 l-o	1.38 i-l
N08070oIJC	6.58 kl	2.42 l-o	74.76 bc	9.55 lm	1.18 m-o	1.71 a-e
N08071oIJC	6.34 k-n	2.35 no	77.05 ab	7.52 mn	1.16 o	1.79 ab
N08072oICT	5.95 m-o	2.44 k-o	79.62 a	5.23 no	1.19 l-o	1.75 a-c
N08073oICT	5.91 m-o	2.35 no	79.43 a	5.49 no	1.16 no	1.81 a
N08074oIC	6.01 m-o	2.50 i-o	78.34 a	6.38 no	1.21 k-o	1.71 a-e
N08075oICT	7.34 j	2.71 f-k	68.37 d	14.61 k	1.32 f-j	1.56 fg
N08081oIJC	5.89 m-o	2.69 f-l	80.20 a	4.52 no	1.29 g-k	1.67 c-e
N08082oIJCT	6.02 m-o	2.66 f-m	79.34 a	5.29 no	1.28 g-k	1.64 ef
N08085oIJCT	6.03 m-o	2.44 k-o	80.52 a	4.23 o	1.22 k-o	1.74 a-e
N08087oIJCT	5.85 m-o	2.69 f-l	80.54 a	4.34 o	1.27 i-l	1.65 d-f
SPT 06-06	9.35 b-g	2.41 m-o	54.08 e-i	25.92 h-j	1.33 e-j	1.50 gh
SPT 06-07	9.06 f-i	2.59 g-o	55.82 ef	24.39 j	1.40 de	1.44 hi
97x22-HO2-2-B2-1-1-2B	6.14 l-o	4.34 a	77.30 ab	4.96 no	1.76 a	1.41 h-j
Mean	8.05	2.76	63.11	19.22	1.32	1.46
LSD_{0.05}²	0.53	0.27	3.51	3.15	0.08	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 28. 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 Planting Date 2, 2010¹ (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
NC-V 11	2.48 i-k ²	1.55 c-f	99.35 a	1.42 h	18.11 b-d	1.84 a	5.22 j-m
Gregory	2.66 e-h	1.40 m-p	93.83 e-g	2.24 h	17.44 f-h	1.51 de	5.49 f-i
Perry	2.70 d-f	1.49 f-l	99.04 a	1.46 h	18.02 b-e	1.82 ab	5.53 e-h
CHAMPS	2.65 e-h	1.45 i-n	96.43 b-d	1.71 h	18.01 b-e	1.65 b-d	5.41 g-j
Phillips	2.72 de	1.48 f-l	98.13 a-c	1.54 h	18.00 c-e	1.76 a-c	5.52 e-i
Bailey	2.57 hi	1.42 l-p	97.96 a-c	1.62 h	17.43 f-h	1.78 a-c	5.24 j-l
Georgia 08V	2.80 cd	1.53 c-g	77.40 mn	17.86 ab	14.96 jk	0.33 k	5.71 c-e
Florida Fancy	2.92 b	1.60 bc	77.82 mn	16.77 ab	14.78 k	0.36 k	5.91 b
Sugg	2.51 ij	1.29 q	97.72 a-c	1.69 h	17.14 h	1.77 a-c	5.07 l-p
VA 98R	2.45 j-l	1.49 f-k	95.75 c-f	1.86 h	17.40 f-h	1.64 cd	5.18 k-n
Titan	2.72 de	1.49 f-k	94.30 d-g	2.00 h	17.71 d-g	1.53 de	5.71 b-e
VT 004152	2.69 d-g	1.36 pq	94.61 d-g	1.89 h	18.31 a-c	1.53 de	5.56 d-g
VT 003200	2.79 cd	1.47 g-m	96.11 b-e	1.77 h	17.80 d-f	1.65 b-d	5.64 d-f
VT 024024	2.65 e-h	1.50 f-j	96.00 b-e	1.83 h	17.57 e-h	1.64 cd	5.50 f-i
VT 024051	2.59 f-i	1.46 h-m	96.00 b-e	1.74 h	18.18 b-d	1.75 a-c	5.40 g-j
N04074FCT	2.86 bc	1.59 b-d	97.55 a-c	1.65 h	17.54 e-h	1.62 cd	5.74 b-d
N05006	2.64 e-h	1.58 b-e	99.86 a	1.34 h	18.52 ab	1.85 a	5.42 g-j
N05008	2.58 g-i	1.52 e-h	98.31 ab	1.44 h	18.82 a	1.74 a-c	5.45 f-i
N05024J	2.58 g-i	1.42 k-p	93.47 f-h	2.19 h	17.27 gh	1.49 d-f	5.32 i-k
N07033oISm	2.39 k-m	1.44 j-o	77.78 mn	19.10 a	13.79 l-n	0.31 k	5.16 k-n
N07036oISmT	2.48 i-k	1.48 f-l	77.69 mn	17.51 ab	14.16 l	0.32 k	5.34 h-k
N07037oISm	2.41 j-m	1.46 h-m	82.98 ij	6.40 fg	14.97 jk	0.76 h	5.24 j-l
N08069oIJCT	2.45 j-l	1.51 e-i	94.21 d-g	2.19 h	16.49 i	1.56 de	5.15 k-o
N08070oIJC	2.32 m	1.49 f-l	82.18 jk	9.45 ef	13.99 lm	0.67 hi	4.99 n-p
N08071oIJC	2.30 m	1.50 f-j	80.69 j-l	11.18 de	13.65 m-o	0.55 ij	4.95 op
N08072oICT	2.31 m	1.51 f-i	78.91 lm	15.26 a-c	13.40 no	0.39 jk	5.01 n-p
N08073oICT	2.33 m	1.52 e-h	79.26 lm	14.75 b-d	13.27 o	0.41 jk	5.01 n-p
N08074oIC	2.35 lm	1.50 f-j	79.76 k-m	12.60 c-e	13.57 m-o	0.47 kj	5.06 l-p
N08075oICT	2.59 f-i	1.50 f-j	85.34 i	4.68 gh	15.46 j	0.95 g	5.41 g-j
N08081oIJC	2.36 lm	1.37 op	78.13 mn	17.77 ab	13.60 m-o	0.33 k	5.02 m-p
N08082oIJCT	2.38 k-m	1.39 n-p	78.69 lm	15.09 bc	13.73 l-o	0.38 jk	5.05 l-p
N08085oIJCT	2.38 k-m	1.44 j-o	77.95 mn	19.07 a	13.50 m-o	0.31 k	5.04 m-p
N08087oIJCT	2.31 m	1.36 pq	78.08 mn	18.58 ab	13.47 no	0.32 k	4.93 p
SPT 06-06	3.70 a	1.70 a	92.60 gh	2.09 h	18.49 a-c	1.40 ef	6.73 a
SPT 06-07	3.67 a	1.64 ab	91.39 h	2.29 h	18.36 a-c	1.33 f	6.70 a
97x22-HO2-2-B2-1-1-2B	2.94 b	1.15 r	76.18 n	15.63 a-c	16.33 i	0.31 k	5.85 bc
Mean	2.62	1.47	88.71	7.49	16.22	1.12	5.41
LSD_{0.05}²	0.11	0.07	2.44	3.85	0.51	0.18	0.20

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. Average of planting dates from Martin County, NC, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.47 ab ²	2.54 i-k	47.83 mn	32.75 ab	1.20 p-r	1.21 o-r
Gregory	8.98 ef	3.04 c	54.02 g-k	27.03 f-i	1.43 c	1.33 k-n
Perry	9.79 c	2.78 d-g	48.98 l-n	31.80 a-d	1.34 e-j	1.20 p-s
CHAMPS	9.93 bc	2.91 cd	51.10 j-m	29.37 b-g	1.35 d-i	1.25 n-q
Phillips	9.78 c	2.77 d-g	49.40 l-n	31.29 a-e	1.32 h-l	1.25 m-q
Bailey	9.68 cd	2.59 g-j	50.69 j-m	30.41 a-f	1.29 j-m	1.28 m-q
Georgia 08V	6.50 g-i	2.94 cd	78.18 a-d	4.99 lm	1.38 c-g	1.68 c-f
Florida Fancy	6.13 ij	2.80 d-f	78.57 a-c	4.85 lm	1.39 c-f	1.79 ab
Sugg	9.64 cd	2.59 h-j	50.94 j-m	30.49 a-f	1.27 l-o	1.21 o-r
VA 98R	9.83 c	2.68 e-i	51.65 i-m	29.33 b-g	1.24 m-p	1.28 l-q
Titan	8.66 f	3.42 b	54.31 g-j	26.47 g-i	1.53 b	1.35 j-m
VT 004152	9.54 c-e	3.32 b	52.34 h-l	28.07 e-h	1.51 b	1.10 s
VT 003200	9.36 c-e	2.94 cd	52.07 h-l	28.70 d-h	1.40 c-e	1.26 m-q
VT 024024	9.03 ef	2.80 d-f	55.40 f-i	25.86 g-i	1.35 d-i	1.38 i-l
VT 024051	9.79 c	3.07 c	51.47 i-m	29.13 c-g	1.38 c-h	1.14 rs
N04074FCT	9.46 c-e	2.77 d-g	49.99 k-n	30.71 a-e	1.32 h-l	1.35 j-n
N05006	10.72 a	2.44 j-l	46.53 n	33.62 a	1.20 p-r	1.30 l-p
N05008	10.55 a	2.88 cd	47.56 mn	32.38 a-c	1.33 g-l	1.19 q-s
N05024J	9.12 d-f	2.91 cd	56.91 fg	24.39 i	1.35 d-i	1.31 k-o
N07033oISm	5.62 g-i	2.87 c-e	75.38 c-e	8.38 j-l	1.34 f-k	1.63 d-g
N07036oISmT	5.84 j	3.02 c	79.90 a	4.21 m	1.38 c-h	1.74 a-c
N07037oISm	6.72 gh	3.00 c	73.05 e	10.41 j	1.37 c-h	1.59 fg
N08069oIJCT	8.76 f	2.49 i-l	58.78 f	23.44 i	1.22 n-q	1.39 i-k
N08070oIJC	6.79 g	2.33 l	74.09 de	10.10 jk	1.16 r	1.71 a-e
N08071oIJC	6.40 g-j	2.36 kl	77.25 a-d	7.15 j-m	1.17 qr	1.81 a
N08072oICT	6.04 ij	2.50 i-l	79.53 ab	5.24 lm	1.20 p-r	1.73 a-d
N08073oICT	6.03 ij	2.37 kl	79.23 a-c	5.54 lm	1.17 qr	1.81 a
N08074oIC	6.20 h-j	2.54 i-k	77.96 a-d	6.45 lm	1.22 n-q	1.74 a-c
N08075oICT	6.28 g-j	2.64 f-j	77.08 a-e	7.15 j-m	1.27 l-o	1.70 b-e
N08081oIJC	6.04 ij	2.66 f-i	79.86 a	4.68 m	1.28 j-m	1.68 c-f
N08082oIJCT	6.03 ij	2.75 d-h	79.52 ab	4.96 lm	1.31 i-l	1.66 c-f
N08085oIJCT	6.17 h-j	2.46 j-l	80.35 a	4.32 m	1.22 o-r	1.75 a-c
N08087oIJCT	6.04 ij	2.75 d-h	79.66 a	5.01 lm	1.28 k-n	1.61 e-g
SPT 06-06	9.41 c-e	2.44 j-l	54.48 g-j	25.36 hi	1.34 f-k	1.54 gh
SPT 06-07	9.19 d-f	2.60 g-j	55.87 f-h	24.19 i	1.40 cd	1.45 hi
97x22-HO2-2-B2-1-1-2B	6.47 g-i	4.19 a	75.44 b-e	6.57 k-m	1.73 a	1.43 ij
Mean	8.12	2.78	63.42	18.80	1.32	1.47
LSD_{0.05}²	0.57	0.20	4.11	3.59	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.

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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. Average of planting dates from Martin County, NC, 2010¹ (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
NC-V 11	2.48 j-m ²	1.52 b-d	98.83 ab	1.46 i	18.20 b-e	1.80 a	5.20 l-o
Gregory	2.74 d-f	1.45 e-i	94.31 d-f	2.08 i	17.63 ef	1.53 c-f	5.61 d-g
Perry	2.66 f-h	1.45 e-i	98.15 a-c	1.55 i	18.02 b-f	1.76 ab	5.45 f-i
CHAMPS	2.67 f-h	1.44 f-j	95.80 c-e	1.74 i	18.29 a-e	1.61 b-e	5.45 f-i
Phillips	2.72 e-g	1.47 d-h	97.66 a-c	1.58 i	18.07 b-e	1.73 ab	5.52 e-h
Bailey	2.65 f-h	1.43 g-k	97.27 a-c	1.67 i	17.63 ef	1.73 a-c	5.36 h-m
Georgia 08V	2.81 c-e	1.51 b-e	77.22 l	17.11 a-d	15.14 h	0.33 i-l	5.70 c-e
Florida Fancy	2.90 bc	1.56 b	77.38 kl	17.44 a-c	14.79 hi	0.33 j-l	5.86 bc
Sugg	2.58 h-k	1.31 m	97.58 a-c	1.67 i	17.36 f	1.76 ab	5.16 m-p
VA 98R	2.49 i-l	1.50 b-f	96.23 b-d	1.77 i	17.74 ef	1.65 a-d	5.23 j-o
Titan	2.80 c-e	1.48 c-h	93.61 d-g	2.06 i	17.88 d-f	1.52 d-f	5.81 b-d
VT 004152	2.76 d-f	1.36 l-m	94.51 d-f	1.88 i	18.48 a-d	1.52 d-f	5.63 d-f
VT 003200	2.82 c-e	1.46 d-h	95.48 c-e	1.82 i	17.98 b-f	1.60 b-e	5.67 c-e
VT 024024	2.67 f-h	1.51 b-f	93.53 e-g	2.85 i	17.36 f	1.46 d-g	5.52 e-h
VT 024051	2.60 g-j	1.44 f-j	95.61 c-e	1.77 i	18.27 b-e	1.60 b-e	5.42 h-k
N04074FCT	2.86 cd	1.55 bc	97.25 a-c	1.64 i	17.95 c-f	1.71 a-c	5.73 b-e
N05006	2.64 f-h	1.55 bc	99.28 a	1.46 i	18.55 a-c	1.81 a	5.39 h-l
N05008	2.61 g-i	1.51 b-f	97.92 a-c	1.47 i	18.88 a	1.72 a-c	5.44 f-j
N05024J	2.59 h-j	1.42 g-k	92.22 fg	2.37 i	17.39 f	1.40 fg	5.37 h-m
N07033oISm	2.46 k-n	1.42 h-k	80.64 h-j	15.83 b-d	14.61 h-j	0.52 hi	5.22 k-o
N07036oISmT	2.45 l-n	1.47 d-h	77.38 kl	19.28 a	14.16 i-k	0.30 l	5.23 k-o
N07037oISm	2.42 l-p	1.44 e-i	82.11 hi	8.86 h	14.95 h	0.69 h	5.13 n-q
N08069oIJCT	2.43 l-o	1.47 d-h	92.26 fg	2.85 i	16.38 g	1.42 e-g	5.13 n-q
N08070oIJC	2.33 n-p	1.47 d-h	82.56 h	10.22 gh	14.10 jk	0.69 h	4.97 pq
N08071oIJC	2.36 m-p	1.50 b-f	80.25 h-j	11.78 f-h	13.79 kl	0.52 h-j	5.02 o-q
N08072oICT	2.30 p	1.46 d-h	78.85 j-l	15.26 c-e	13.50 kl	0.39 i-l	5.94 pq
N08073oICT	2.35 m-p	1.51 b-f	79.17 j-l	14.55 c-f	13.42 l	0.41 i-l	5.02 o-q
N08074oIC	2.39 l-p	1.49 c-g	79.60 i-l	12.34 e-g	13.85 kl	0.47 i-l	5.11 n-q
N08075oICT	2.43 l-o	1.45 d-h	80.02 h-k	14.15 d-f	14.07 j-l	0.50 i-k	5.16 m-p
N08081oIJC	2.42 l-p	1.37 j-m	78.12 j-l	17.20 a-d	13.77 kl	0.34 i-l	5.07 o-q
N08082oIJCT	2.42 l-p	1.37 k-m	78.29 j-l	16.25 a-d	13.87 kl	0.36 i-l	5.09 n-q
N08085oIJCT	2.36 m-p	1.38 i-l	77.96 j-l	18.64 ab	13.59 kl	0.32 kl	4.96 pq
N08087oIJCT	2.32 op	1.33 lm	78.47 j-l	16.62 a-d	13.71 kl	0.37 i-l	4.92 q
SPT 06-06	3.73 a	1.70 a	91.99 fg	2.15 i	18.62 ab	1.36 fg	6.77 a
SPT 06-07	3.66 a	1.64 a	91.09 g	2.31 i	18.49 a-d	1.31 g	6.70 a
97x22-HO2-2-B2-1-1-2B	3.01 b	1.18 n	77.38 kl	12.49 e-g	16.57 g	0.40 i-l	5.91 b
Mean	2.64	1.46	88.25	7.66	16.32	1.08	5.42
LSD_{0.05}²	0.13	0.07	2.68	3.29	0.67	0.19	0.21

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 from Rocky Mount, NC, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	9.83 b-e ²	2.44 pq	53.36 f-k	28.21 a-c	1.18 l-n	1.22 ij
Gregory	8.95 fg	2.96 d-f	56.01 e-g	25.76 cd	1.36 cd	1.18 i-l
Perry	9.83 b-e	2.72 f-o	49.33 jk	31.56 a	1.34 c-e	1.17 i-l
CHAMPS	9.41 c-g	2.91 e-h	55.48 e-g	25.59 cd	1.36 cd	1.26 hi
Phillips	9.58 c-f	2.84 e-j	52.80 f-k	28.45 a-c	1.32 c-i	1.18 i-l
Bailey	9.84 b-d	2.61 j-q	49.77 h-k	31.32 ab	1.28 e-j	1.21 i-k
Georgia 08V	6.94 hi	2.89 e-i	74.79 b-d	8.76 e-g	1.33 c-f	1.45 d-g
Florida Fancy	6.47 i-j	2.77 e-m	76.42 a-d	6.99 e-h	1.36 cd	1.69 a
Sugg	9.08 e-g	2.59 k-q	55.38 e-g	26.75 b-d	1.27 f-k	1.19 i-l
VA 98R	9.88 b-d	2.84 e-k	53.00 f-k	28.17 a-c	1.26 g-k	1.15 i-l
Titan	8.74 g	3.25 bc	55.44 e-g	26.14 cd	1.45 b	1.17 i-l
VT 004152	9.84 b-d	3.34 b	52.48 g-k	28.17 a-c	1.46 b	0.99 m
VT 003200	9.27 c-g	2.90 e-i	54.75 e-i	26.63 b-d	1.37 cd	1.16 i-l
VT 024024	9.59 c-f	2.92 e-g	52.60 g-k	28.77 a-c	1.36 cd	1.09 k-m
VT 024051	9.93 bc	3.19 b-d	53.17 f-k	27.69 a-d	1.37 cd	1.00 m
N04074FCT	9.16 d-g	2.89 e-i	53.45 e-k	28.00 a-c	1.31 c-i	1.24 hi
N05006	10.72 a	2.78 e-l	48.32 k	32.27 a	1.24 j-l	1.07 lm
N05008	10.41 ab	2.73 f-o	49.59 i-k	31.12 ab	1.27 e-k	1.11 j-m
N05024J	9.00 fg	3.00 c-e	58.78 e	23.20 d	1.32 c-i	1.16 i-l
N07033oISm	5.91 kl	2.87 e-j	80.65 a	4.16 gh	1.30 d-j	1.57 a-d
N07036oISmT	5.70 l	2.96 d-f	81.76 a	3.02 h	1.33 c-f	1.61 ab
N07037oISm	6.93 h-j	2.95 d-f	73.12 cd	10.66 ef	1.33 c-h	1.42 e-g
N08069oIJCT	9.01 fg	2.49 n-q	58.17 ef	24.30 cd	1.20 k-n	1.27 hi
N08070oIJC	6.16 kl	2.48 o-q	79.34 ab	5.78 gh	1.17 mn	1.60 ab
N08071oIJC	6.29 i-l	2.41 q	79.14 ab	6.00 f-h	1.14 n	1.59 a-c
N08072oICT	6.18 j-l	2.61 j-q	78.72 ab	6.25 f-h	1.21 k-n	1.55 b-e
N08073oICT	6.26 i-l	2.51 m-q	78.51 a-c	6.39 f-h	1.18 l-n	1.58 a-c
N08074oIC	5.89 kl	2.69 g-p	80.89 a	4.15 gh	1.24 j-m	1.59 a-c
N08075oICT	6.31 i-l	2.63 i-q	76.67 a-d	7.78 e-g	1.26 h-k	1.60 ab
N08081oIJC	6.35 i-l	2.78 e-l	78.16 a-c	6.50 f-h	1.29 e-j	1.46 c-g
N08082oIJCT	6.41 i-l	2.75 e-n	78.04 a-c	6.54 f-h	1.28 e-j	1.46 c-g
N08085oIJCT	7.34 h	2.93 d-g	72.04 d	11.35 e	1.34 c-e	1.37 gh
N08087oIJCT	6.12 kl	2.65 h-q	80.32 a	4.39 gh	1.26 i-k	1.59 a-c
SPT 06-06	9.43 c-g	2.42 q	54.12 e-j	25.90 cd	1.33 c-g	1.51 b-f
SPT 06-07	9.37 c-g	2.54 l-q	55.14 e-h	24.88 cd	1.38 c	1.45 d-g
97x22-HO2-2-B2-1-1-2B	6.24 i-l	4.05 a	76.72 a-d	6.00 f-h	1.66 a	1.41 fg
Mean	8.12	2.81	64.35	18.27	1.31	1.34
LSD_{0.05}²	0.76	0.27	5.39	4.71	0.67	0.13

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 from Rocky Mount, NC, 2010¹ (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
NC-V 11	2.37 g-l ²	1.8 c-e	95.72 a-d	2.01 gh	17.20 e-h	1.63 a-e	4.93 g-k
Gregory	2.47 d-j	1.32 c-i	93.72 de	2.18 gh	17.05 f-i	1.51 b-f	5.15 d-h
Perry	2.64 b-d	1.41 bc	98.01 ab	1.57 h	17.94 a-e	1.76 ab	5.38 b-d
CHAMPS	2.61 cd	1.38 c-e	93.03 de	2.22 gh	17.68 b-g	1.44 d-f	5.36 cd
Phillips	2.50 d-h	1.34 c-h	95.61 a-d	1.87 gh	17.58 c-g	1.62 a-e	5.15 d-h
Bailey	2.59 c-e	1.39 c-e	98.00 ab	1.59 h	17.70 a-f	1.77 a	5.26 d-f
Georgia 08V	2.49 d-i	1.34 c-h	80.64 f-h	9.31 ef	15.00 l	0.58 g-i	5.17 d-g
Florida Fancy	2.81 b	1.49 b	79.17 g-i	12.42 d-f	14.90 l	0.47 h-k	5.67 b
Sugg	2.46 d-j	1.27 g-k	94.90 a-e	2.15 gh	16.68 h-j	1.60 a-e	5.00 e-j
VA 98R	2.37 g-l	1.33 c-i	95.28 a-d	1.91 gh	17.68 b-g	1.59 a-f	4.96 g-k
Titan	2.51 d-g	1.29 e-k	93.89 de	2.12 gh	17.24 e-h	1.52 a-f	5.25 d-f
VT 004152	2.50 d-g	1.21 kl	94.72 b-e	1.87 gh	18.35 a-c	1.53 a-f	5.18 d-g
VT 003200	2.60 c-e	1.32 c-i	94.14 c-e	2.08 gh	17.45 d-h	1.53 a-f	5.28 de
VT 024024	2.39 f-k	1.28 f-k	95.93 a-d	1.83 gh	17.54 c-g	1.64 a-d	5.03 e-j
VT 024051	2.40 e-k	1.25 g-k	94.48 c-e	1.94 gh	18.14 a-d	1.53 a-f	5.02 e-j
N04074FCT	2.57 d-f	1.38 c-e	95.45 a-d	1.93 gh	17.30 e-h	1.61 a-e	5.26 de
N05006	2.30 h-m	1.29 e-k	98.30 a	1.50 h	18.34 a-c	1.76 ab	4.84 i-m
N05008	2.39 f-k	1.37 c-f	97.44 a-c	1.60 h	18.17 a-d	1.71 a-c	5.04 e-i
N05024J	2.29 i-m	1.24 i-k	91.65 e	2.54 gh	16.86 g-i	1.37 ef	4.86 h-m
N07033oISm	2.22 k-n	1.31 d-j	77.81 hi	22.51 ab	13.62 m	0.30 jk	4.84 i-m
N07036oISmT	2.26 k-n	1.37 c-f	76.81 i	27.10 a	13.62 m	0.22 k	4.96 g-k
N07037oISm	2.28 j-n	1.32 c-i	82.47 fg	8.03 fg	14.80 l	0.71 gh	4.92 g-l
N08069oIJCT	2.26 k-n	1.30 e-k	93.12 de	2.52 gh	16.26 ij	1.48 c-f	4.77 i-m
N08070oIJC	2.12 mn	1.35 c-g	79.51 f-i	14.32 c-f	13.28 m	0.43 i-k	4.63 lm
N08071oIJC	2.09 n	1.33 c-i	79.70 f-i	14.82 c-e	13.27 m	0.45 i-k	4.57 m
N08072oICT	2.15 mn	1.34 c-i	79.75 f-i	15.42 c-e	13.49 m	0.46 h-k	4.69 k-m
N08073oICT	2.19 l-n	1.37 c-f	79.85 f-i	14.20 c-f	13.51 m	0.47 h-k	4.74 j-m
N08074oIC	2.22 k-n	1.34 c-h	78.01 hi	19.71 bc	13.37 m	0.31 jk	4.80 i-m
N08075oICT	2.35 g-l	1.40 cd	80.68 f-h	10.71 ef	13.95 m	0.55 g-j	5.01 e-j
N08081oIJC	2.25 k-n	1.22 j-l	79.62 f-i	14.43 c-f	13.88 m	0.47 h-k	4.75 i-m
N08082oIJCT	2.26 k-n	1.26 g-k	79.61 f-i	13.42 c-f	13.95 m	0.47 h-k	4.79 i-m
N08085oIJCT	2.38 f-l	1.25 h-k	82.70 f	9.70 ef	15.24 kl	0.73 g	4.96 f-k
N08087oIJCT	2.35 g-l	1.32 c-i	77.94 hi	18.56 b-d	13.70 m	0.32 jk	4.93 g-k
SPT 06-06	3.65 a	1.63 a	92.58 de	2.09 gh	18.48 ab	1.40 d-f	6.62 a
SPT 06-07	3.65 a	1.59 a	91.66 e	2.23 gh	18.53 a	1.34 f	6.62 a
97x22-HO2-2-B2-1-1-2B	2.78 bc	1.14 l	77.50 hi	12.84 d-f	15.86 jk	0.38 i-k	5.58 bc
Mean	2.47	1.34	88.04	7.70	16.05	1.07	5.11
LSD_{0.05}²	0.19	0.09	3.49	6.41	0.83	0.26	0.30

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 from Whiteville, NC, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.35 a-c ²	2.70 g-j	53.92 g-i	26.75 a-d	1.27 k	1.16 j-l
Gregory	10.22 b-d	2.90 d-j	52.30 hi	27.89 a-c	1.38 c-i	1.20 h-l
Perry	9.76 c-f	2.96 b-h	54.07 g-i	26.53 a-e	1.40 b-h	1.15 j-l
CHAMPS	10.10 b-e	3.00 b-g	54.12 g-i	26.23 a-e	1.42 b-g	1.12j-l
Phillips	10.11 b-e	2.94 c-i	53.45 g-i	27.19 a-d	1.36 d-k	1.10 kl
Bailey	10.04 b-e	2.89 d-j	53.98 g-i	26.83 a-d	1.35 d-k	1.13 j-l
Georgia 08V	7.31 i-l	3.04 c-f	76.13 a-c	6.74 jk	1.39 c-i	1.43 b-e
Florida Fancy	6.49 kl	2.99 b-g	78.64 a	5.23 k	1.38 c-i	1.50 a-d
Sugg	9.66 c-g	2.90 d-j	56.11 f-h	24.94 a-f	1.39 c-i	1.19 h-l
VA 98R	9.92 b-f	2.77 f-j	57.03 f-h	23.95 b-f	1.30 h-k	1.16 j-l
Titan	9.24 d-g	3.19 b-d	59.28 fg	21.81 d-f	1.45 b-d	1.18 i-l
VT 004152	8.89 f-h	3.25 bc	61.26 ef	20.00 fg	1.50 b	1.16 j-l
VT 003200	9.13 e-g	2.94 c-i	59.13 fg	21.96 d-f	1.43 b-e	1.25 f-j
VT 024024	8.64 gh	2.98 b-g	60.17 fg	21.61 d-f	1.41 b-g	1.23 f-k
VT 024051	9.84 c-f	3.29 b	55.34 f-i	25.05 a-f	1.47 bc	1.06 l
N04074FCT	9.79 c-f	2.76 f-j	55.93 f-i	24.90 a-f	1.32 f-k	1.23 g-k
N05006	11.29 a	2.62 ij	49.28 i	30.42 a	1.27 jk	1.15 j-l
N05008	10.92 ab	2.98 b-g	50.59 hi	29.08 ab	1.38 c-i	1.06 l
N05024J	10.07 b-e	2.93 c-i	55.54 f-i	25.18 a-f	1.35 d-k	1.15 j-l
N07033oISm	6.57 kl	2.80 f-j	75.32 a-c	8.02 i-k	1.40 b-h	1.64 a
N07036oISmT	7.11 i-l	2.89 d-j	73.73 a-d	10.10 h-k	1.31 g-k	1.42 b-e
N07037oISm	7.44 i-k	2.87 d-j	71.31 b-d	11.78 h-j	1.34 d-k	1.44 b-e
N08069oIJCT	7.94 hi	2.75 f-j	67.29 de	15.47 gh	1.32 f-k	1.38 c-f
N08070oIJC	7.50 i-k	2.74 f-j	72.99 a-d	10.18 h-k	1.29 i-k	1.51 a-c
N08071oIJC	6.53 kl	3.05 b-f	78.63 a	5.07 k	1.38 c-j	1.54 ab
N08072oICT	7.88 h-j	2.90 d-i	69.65 cd	13.20 hi	1.33 e-k	1.36 d-g
N08073oICT	6.89 j-l	2.76 f-j	77.39 ab	6.68 jk	1.25 k	1.51 a-c
N08074oIC	7.17 i-l	2.87 d-j	74.21 a-c	9.14 i-k	1.34 d-k	1.43 b-e
N08075oICT	6.37 l	2.82 e-j	78.15 a	6.15 jk	1.33 e-k	1.50 a-d
N08081oIJC	7.09 i-l	3.15 b-e	74.72 a-c	8.43 i-k	1.42 b-f	1.42 b-e
N08082oIJCT	6.66 kl	2.92 d-i	76.70 ab	6.88 jk	1.40 b-h	1.49 b-d
N08085oIJCT	6.87 j-l	2.63 h-j	75.27 a-c	8.66 i-k	1.29 i-k	1.51 a-c
N08087oIJCT	6.79 kl	2.93 c-i	75.64 a-c	7.73 i-k	1.40 b-h	1.48 b-d
SPT 06-06	9.61 c-g	2.58 j	57.16 f-h	22.69 c-f	1.40 b-h	1.40 b-e
SPT 06-07	9.44 c-g	2.83 e-j	59.38 fg	20.78 e-g	1.42 b-f	1.33 e-h
97x22-HO2-2-B2-1-1-2B	6.62 kl	4.34 a	75.46 a-c	6.46 jk	1.78 a	1.33 e-i
Mean	8.51	2.93	64.70	17.23	1.37	1.32
LSD_{0.05}²	1.04	0.33	6.75	5.82	0.11	0.15

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 from Whiteville, NC, 2010¹ (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
NC-V 11	2.39 d-g ²	1.47 a-e	93.62 a-e	2.03 l	18.17 a-d	1.47 ab	5.12 e-g
Gregory	2.64 b-e	1.47 a-e	94.23 a-c	1.88 l	18.61 a-c	1.50 ab	5.49 c-f
Perry	2.67 b-d	1.46 a-e	93.35 a-e	2.06 l	18.26 a-c	1.45 ab	5.54 c-f
CHAMPS	2.54 b-e	1.40 b-f	92.93 a-e	2.08 l	18.45 a-c	1.42 a-c	5.35 c-f
Phillips	2.47 c-g	1.38 b-f	93.94 a-d	1.97 l	18.25 a-c	1.49 ab	5.20 d-g
Bailey	2.45 c-g	1.32 d-g	93.79 a-e	2.01 l	18.06 a-d	1.49 ab	5.12 e-g
Georgia 08V	2.53 b-e	1.43 b-e	79.04 l-n	15.65 a-c	15.69 g-i	0.42 i-k	5.34 c-f
Florida Fancy	2.43 c-g	1.35 c-g	77.88 l-n	16.70 a	14.63 h-k	0.35 jk	5.15 d-g
Sugg	2.49 c-f	1.32 d-g	92.40 a-f	2.42 j-l	17.76 c-e	1.39 a-c	5.21 d-g
VA 98R	2.45 c-g	1.42 b-f	91.45 b-g	2.40 j-l	17.86 c-e	1.34 a-c	5.17 d-g
Titan	2.53 b-e	1.32 d-g	89.68 d-h	2.94 j-l	17.74 c-e	1.22 b-d	5.30 c-f
VT 004152	2.62 b-e	1.31 e-g	88.25 f-h	3.41 i-l	17.57 c-e	1.13 c-e	5.42 c-f
VT 003200	2.71 bc	1.45 b-e	89.87 d-h	2.70 j-l	17.67 c-e	1.24 b-d	5.59 c-e
VT 024024	2.55 b-e	1.41 b-f	90.15 c-g	2.91 k-l	16.99 d-f	1.26 b-d	5.37 c-f
VT 024051	2.54 b-e	1.40 b-f	91.82 a-g	2.22 kl	18.55 a-c	1.35 a-c	5.41 c-f
N04074FCT	2.59 b-e	1.49 a-d	92.20 a-g	2.38 j-l	17.94 b-e	1.38 a-c	5.39 c-f
N05006	2.50 c-f	1.48 a-d	95.97 a	1.63 l	19.16 ab	1.59 a	5.26 d-g
N05008	2.53 b-e	1.45 a-e	94.72 ab	1.75 l	19.27 a	1.51 ab	5.37 c-f
N05024J	2.46 c-g	1.33 c-g	92.28 a-g	2.23 kl	18.13 a-d	1.39 a-c	5.14 d-g
N07033oISm	2.71 bc	1.54 ab	79.95 j-n	9.66 c-i	15.02 h-k	0.53 g-k	5.65 cd
N07036oISmT	2.19 fg	1.25 fg	82.03 i-l	10.17 b-h	14.75 h-k	0.67 f-i	4.75 g
N07037oISm	2.39 d-g	1.43 b-e	82.87 i-k	7.26 f-l	15.47 h-j	0.75 f-h	5.16 d-g
N08069oIJCT	2.44 c-g	1.41 b-f	85.76 hi	4.47 h-l	15.86 f-h	0.97 d-f	5.17 d-g
N08070oIJC	2.39 d-g	1.41 b-f	81.59 i-m	8.66 e-k	15.33 h-k	0.66 g-j	5.08 e-g
N08071oIJC	2.41 c-g	1.40 b-f	77.62 mn	16.31 ab	14.76 h-k	0.35 k	5.18 d-g
N08072oICT	2.32 e-g	1.37 c-f	83.83 ij	5.73 g-l	15.80 f-i	0.83 e-g	5.02 fg
N08073oICT	2.17 g	1.35 c-g	79.32 k-n	15.20 a-d	14.42 jk	0.45 h-k	4.77 g
N08074oIC	2.41 c-g	1.44 b-e	80.78 j-n	8.75 d-j	15.22 h-k	0.59 g-k	5.19 d-g
N08075oICT	2.33 e-g	1.37 b-f	79.04 k-n	13.28 a-f	14.21 k	0.43 i-k	5.02 fg
N08081oIJC	2.46 c-g	1.30 e-g	79.98 j-n	9.65 c-i	15.43 h-k	0.54 g-k	5.19 d-g
N08082oIJCT	2.52 c-e	1.42 b-f	79.07 k-n	14.16 a-e	14.92 h-k	0.46 h-k	5.34 c-f
N08085oIJCT	2.42 c-g	1.35 c-g	80.94 j-n	11.90 a-g	14.56 i-k	0.59 g-k	5.06 e-g
N08087oIJCT	2.62 b-e	1.42 b-f	79.61 j-n	10.20 a-h	15.15 h-k	0.50 h-k	5.44 c-f
SPT 06-06	3.54 a	1.62 a	89.57 e-h	2.53 j-l	18.75 a-c	1.21 b-d	6.55 a
SPT 06-07	3.13 a	1.50 a-c	88.10 gh	2.89 k-l	18.52 a-c	1.12 c-e	6.24 ab
97x22-HO2-2-B2-1-1-2B	2.84 b	1.19 g	77.12 n	12.05 a-g	16.76 e-g	0.39 i-k	5.81 bc
Mean	2.54	1.40	86.53	6.50	16.75	0.99	5.32
LSD_{0.05}²	0.32	0.17	4.28	6.52	1.26	0.31	0.53

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 32. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Florence, SC, 2010¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	11.05 bc ²	2.67 h-k	51.97 lm	28.13 a-c	1.26 n-q	1.09 l-n
Gregory	10.05 d-g	2.93 c-h	55.29 g-l	25.27 c-f	1.41 e-g	1.13 k-n
Perry	9.97 d-g	2.80 g-j	55.85 g-l	25.16 c-g	1.35 g-k	1.09 l-n
CHAMPS	9.93 d-h	2.95 c-h	57.81 g-i	22.71 e-i	1.41 e-h	1.19 i-l
Phillips	10.31 d-f	2.87 d-i	52.97 kl	27.58 b-d	1.35 g-k	1.10 l-n
Bailey	9.91 d-i	2.92 d-i	54.94 h-l	25.97 c-e	1.37 g-j	1.09 l-n
Georgia 08V	6.87 kl	3.17 b-d	79.71 ab	3.40 n	1.45 d-f	1.40 c-f
Florida Fancy	6.72 kl	3.15 b-e	79.38 ab	3.79 n	1.49 cd	1.40 c-f
Sugg	9.95 d-g	2.74 g-k	54.70 i-l	26.51 cd	1.32 j-n	1.08 m-o
VA 98R	11.04 bc	2.80 g-i	52.11 lm	27.99 a-c	1.29 k-p	1.06 n-p
Titan	9.21 hi	3.33 b	59.38 fg	21.19 hi	1.56 bc	1.19 i-l
VT 004152	9.90 d-i	3.33 b	55.22 g-l	24.76 c-g	1.57 b	1.04 n-p
VT 003200	9.81 e-i	2.88 d-i	56.75 g-k	24.15 d-h	1.40 e-i	1.11 l-n
VT 024024	10.37 c-e	2.85 e-i	53.45 i-l	27.05 cd	1.38 f-j	1.08 m-o
VT 024051	10.54 cd	3.23 bc	54.88 i-l	25.07 c-g	1.45 de	0.98 op
N04074FCT	10.24 d-g	2.66 h-k	53.00 kl	27.37 cd	1.32 j-n	1.22 h-k
N05006	11.87 a	2.50 jk	48.01 m	31.21 a	1.24 o-q	1.14 k-n
N05008	11.74 ab	2.88 d-i	48.49 m	30.92 ab	1.34 h-m	0.96 p
N05024J	9.63 f-i	2.80 g-j	59.10 f-h	22.26 f-i	1.34 g-l	1.17 j-m
N07033oISm	6.68 kl	2.71 g-k	79.55 ab	4.50 mn	1.31 j-o	1.57 a
N07036oISmT	6.50 l	2.74 g-k	81.22 a	3.23 n	1.28 k-p	1.49 a-c
N07037oISm	7.33 jk	2.79 g-j	74.86 c-e	8.66 jk	1.32 i-n	1.41 c-f
N08069oIJCT	9.20 i	2.68 h-k	62.42 f	19.47 i	1.27 l-q	1.26 h-j
N08070oIJC	6.85 kl	2.47 k	79.06 a-c	5.21 k-n	1.20 q	1.54 ab
N08071oIJC	7.76 j	2.62 i-k	73.25 e	10.27 j	1.22 pq	1.42 c-f
N08072oICT	6.66 kl	2.72 g-k	79.56 ab	4.71 l-n	1.27 m-q	1.45 b-e
N08073oICT	6.68 kl	2.77 g-k	80.28 ab	4.04 mn	1.27 m-q	1.45 b-e
N08074oIC	7.08 j-l	2.79 g-j	77.40 a-e	6.46 k-n	1.29 k-o	1.37 d-g
N08075oICT	6.83 kl	2.83 f-i	77.86 a-c	6.03 k-n	1.32 i-n	1.47 a-d
N08081oIJC	7.11 j-l	2.88 d-i	76.22 b-e	7.47 j-m	1.34 g-l	1.37 d-g
N08082oIJCT	6.57 l	3.00 c-g	79.95 ab	4.33 mn	1.35 g-k	1.36 e-g
N08085oIJCT	6.74 kl	2.71 g-k	80.28 ab	4.20 mn	1.26 n-q	1.39 d-g
N08087oIJCT	6.80 kl	2.84 f-i	77.50 a-d	6.59 k-n	1.32 j-n	1.37 d-g
SPT 06-06	9.75 e-i	2.76 g-k	57.88 g-i	21.75 g-i	1.44 d-f	1.32 f-h
SPT 06-07	9.53 g-i	3.13 b-f	57.39 g-j	22.02 f-i	1.56 bc	1.29 g-i
97x22-HO2-2-B2-1-1-2B	7.37 jk	4.14 a	73.43 de	8.06 j-l	1.71 a	1.23 h-k
Mean	8.71	2.89	65.46	16.47	1.36	1.26
LSD_{0.05}²	0.73	0.31	4.21	3.48	0.07	1.10

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 32. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Florence, SC, 2010¹ (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
NC-V 11	2.42 g-o ²	1.40 c-e	94.28 a-c	1.85 j	18.81 a-c	1.50 a-c	5.09 h-o
Gregory	2.60 d-h	1.33 d-j	92.20 c-g	2.19 j	18.32 b-e	1.38 b-f	5.33 d-h
Perry	2.49 f-m	1.29 e-k	92.47 c-f	2.23 j	17.90 d-f	1.40 a-f	5.13 g-n
CHAMPS	2.67 c-f	1.34 d-i	89.98 gh	2.56 ij	18.30 b-e	1.24 f-h	5.42 c-g
Phillips	2.52 e-j	1.31 e-k	94.18 a-c	1.92 j	18.36 b-d	1.50 ab	5.18 f-m
Bailey	2.50 e-k	1.31 e-k	93.09 c-e	2.12 j	18.00 c-f	1.44 a-e	5.18 f-m
Georgia 08V	2.61 d-g	1.39 c-f	75.54 n	25.17 a	15.49 h	0.22 no	5.45 b-f
Florida Fancy	2.69 c-e	1.38 c-f	75.94 mn	21.00 a-c	15.43 h	0.24 m-o	5.56 b-d
Sugg	2.49 e-l	1.22 j-l	93.81 b-d	2.07 j	17.71 d-f	1.50 a-c	5.03 h-p
VA 98R	2.36 j-p	1.36 c-g	94.13 a-c	1.87 j	18.84 a-c	1.48 a-d	5.00 i-q
Titan	2.75 b-d	1.39 c-f	88.71 h	2.87 h-j	18.24 b-e	1.16 gh	5.70 bc
VT 004152	2.86 bc	1.32 e-j	91.20 e-g	2.23 j	18.98 ab	1.31 d-h	5.75 b
VT 003200	2.60 d-h	1.34 d-i	91.50 d-g	2.37 j	18.00 c-f	1.34 b-g	5.32 d-i
VT 024024	2.49 e-l	1.33 d-j	93.68 b-d	1.98 j	18.42 b-d	1.47 a-d	5.20 e-l
VT 024051	2.52 e-k	1.33 d-j	91.40 d-g	2.21 j	19.07 ab	1.34 b-h	5.30 d-j
N04074FCT	2.76 b-d	1.44 b-d	93.95 a-c	1.94 j	18.41 b-d	1.49 a-d	5.51 b-e
N05006	2.75 e-i	1.47 a-c	96.25 a	1.54 j	19.64 a	1.59 a	5.27 d-k
N05008	2.36 j-p	1.31 e-k	96.02 ab	1.57 j	19.63 a	1.58 a	5.00 j-q
N05024J	2.46 g-n	1.26 g-l	90.29 f-h	2.73 ij	17.48 e-g	1.27 e-h	5.06 h-o
N07033oISm	2.37 j-p	1.33 d-j	77.44 k-n	23.22 ab	14.38 i-k	0.30 k-o	5.01 i-q
N07036oISmT	2.21 p	1.31 e-k	77.63 l-n	25.99 a	14.05 k	0.23 no	4.82 n-q
N07037oISm	2.32 k-p	1.30 e-k	80.49 ij	9.41 f-i	15.07 hi	0.57 ij	4.95 l-q
N08069oIJCT	2.38 i-p	1.33 d-j	88.40 h	3.29 h-j	16.85 g	1.16 gh	4.98 k-q
N08070oIJC	2.30 l-p	1.38 c-f	78.23 j-m	15.29 c-f	14.19 jk	0.37 k-o	4.87 m-q
N08071oIJC	2.24 op	1.28 f-k	81.91 i	8.01 g-j	15.06 hi	0.68 i	4.74 pq
N08072oICT	2.28 n-p	1.35 d-h	77.73 k-n	16.88 b-e	14.28 i-k	0.33 k-o	4.90 l-q
N08073oICT	2.21 p	1.32 e-k	77.18 k-n	20.52 a-c	14.24 i-k	0.28 l-o	4.79 o-q
N08074oIC	2.29 m-p	1.30 e-k	78.85 j-l	14.59 c-g	14.76 h-k	0.43 j-m	4.89 l-q
N08075oICT	2.37 j-p	1.30 e-k	78.56 j-l	13.48 d-g	14.63 h-k	0.41 j-n	4.98 j-q
N08081oIJC	2.40 h-p	1.21 kl	79.59 i-k	12.67 e-g	14.93 h-j	0.49 i-k	4.95 l-q
N08082oIJCT	2.28 n-p	1.16 l	77.35 k-n	19.94 a-d	14.35 i-k	0.30 k-o	4.78 o-q
N08085oIJCT	2.21 p	1.23 i-l	77.41 k-n	20.50 a-c	14.14 jk	0.29 l-o	4.69 q
N08087oIJCT	2.32 k-p	1.24 h-l	79.14 jk	15.43 c-f	14.52 i-k	0.44 j-l	4.88 m-q
SPT 06-06	3.52 a	1.56 a	88.51 h	2.67 ij	19.04 ab	1.14 h	6.52 a
SPT 06-07	3.54 a	1.55 ab	88.51 h	2.61 ij	19.30 a	1.14 h	6.64 a
97x22-HO2-2-B2-1-1-2B	2.89 b	1.16 l	78.09 j-m	9.76 f-h	17.28 fg	0.46 j-l	5.76 b
Mean	2.52	1.33	85.82	8.92	16.81	0.92	5.21
LSD _{0.05} ²	0.20	0.11	2.43	6.92	0.86	0.19	0.32

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 33. 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, 2010.¹

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.27 b ²	2.63 m-o	50.98 p	29.88 bc	1.22 r	1.17 mn
Gregory	9.25 fg	3.01 de	54.76 g-k	26.39 f-h	1.40 cd	1.22 k-m
Perry	9.68 c-e	2.88 f-h	51.74 n-p	29.24 cd	1.36 e-h	1.15 n
CHAMPS	9.79 cd	2.92 d-g	53.33 j-o	27.47 e-g	1.35 f-j	1.21 l-n
Phillips	9.83 c	2.85 f-h	51.54 op	29.34 cd	1.32 j-n	1.18 l-n
Bailey	9.76 cd	2.72 j-m	51.85 m-p	29.29 cd	1.31 l-o	1.19 l-n
Georgia 08V	6.64 j	3.02 de	78.29 a-c	5.05 n-p	1.38 c-f	1.55 d-f
Florida Fancy	6.25 m-o	2.88 f-h	78.79 a-c	4.87 op	1.39 c-e	1.64 ab
Sugg	9.39 e-g	2.6 k-n	53.66 j-n	27.96 d-f	1.31 no	1.19 l-n
VA 98R	9.94 c	2.80 h-k	53.25 k-o	27.75 d-f	1.27 pq	1.19 l-n
Titan	8.76 h	3.40 b	56.66 g	24.47 ij	1.50 b	1.23 kl
VT 004152	9.50 d-f	3.5 bc	54.24 i-l	26.41 f-h	1.51 b	1.06 o
VT 003200	9.17 g	2.96 d-f	55.29 g-j	25.82 g-i	1.40 cd	1.22 k-m
VT 024024	9.40 e-g	2.95 d-f	54.63 h-k	26.56 f-h	1.38 d-g	1.20 l-n
VT 024051	9.82 c	3.23 c	53.75 j-m	26.89 e-g	1.40 cd	1.06 o
N04074FCT	9.44 e-g	2.84 f-h	52.48 l-p	28.50 c-e	1.32 j-o	1.27 k
N05006	10.87 a	2.57 n-q	48.48 q	31.79 a	1.22 r	1.19 l-n
N05008	10.68 a	2.90 e-h	48.93 q	31.19 ab	1.33 i-n	1.09 o
N05024J	9.39 e-g	2.92 d-g	56.51 gh	24.83 h-j	1.34 h-m	1.21 l-n
N07033oISm	6.27 l-o	2.88 f-h	78.07 a-c	6.04 m-p	1.34 h-l	1.62 a-c
N07036oISmT	6.05 o	3.00 de	79.92 a	4.42 p	1.35 g-k	1.61 a-d
N07037oISm	6.96 i	3.03 d	72.60 e	10.87 l	1.36 e-i	1.47 h
N08069oIJCT	8.79 h	2.54 o-r	59.89 f	22.42 k	1.24 qr	1.33 j
N08070oIJC	6.57 j-l	2.44 r	77.21 c	7.39 m	1.17 s	1.62 a-c
N08071oIJC	6.46 j-m	2.49 qr	78.09 a-c	6.49 m-o	1.18 s	1.65 a
N08072oICT	6.32 k-o	2.70 j-m	78.32 a-c	6.22 m-o	1.24 qr	1.57 c-f
N08073oICT	6.18 m-o	2.61 n-p	79.43 ab	5.26 n-p	1.22 r	1.63 a-c
N08074oIC	6.40 j-n	2.68 l-n	77.70 bc	6.69 mn	1.25 qr	1.58 b-e
N08075oICT	6.12 no	2.63 -o	78.68 a-c	5.90 m-p	1.27 pq	1.65 a
N08081oIJC	6.35 j-o	2.82 g-j	78.55 a-c	5.85 m-p	1.31 m-o	1.52 f-h
N08082oIJCT	6.23 n-o	2.83 g-i	79.13 a-c	5.36 n-p	1.31 k-o	1.53 e-h
N08085oIJCT	6.43 j-n	2.66 mn	78.60 a-c	5.81 m-p	1.27 pq	1.57 c-f
N08087oIJCT	6.24 m-o	2.79 h-l	79.07 a-c	5.48 n-p	1.29 op	1.53 e-g
SPT 06-06	9.31 fg	2.50 p-r	56.16 g-i	24.00 jk	1.35 g-k	1.49 gh
SPT 06-07	9.30 fg	2.70 k-m	56.18 g-i	23.89 jk	1.41 c	1.40 i
97x22-HO2-2-B2-1-1-2B	6.63 jk	4.12 a	74.94 d	7.22 m	1.69 a	1.36 ij
Mean	8.18	2.86	64.52	17.84	1.33	1.37
LSD_{0.05}²	0.31	0.12	1.97	1.74	0.03	0.59

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 33. 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, 2010¹. (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
NC-V 11	2.41 j-l ²	1.43 b-d	96.53 a-c	1.74 k	17.97 de	1.66 ab	5.07 j-n
Gregory	2.60 ef	1.38 e-h	93.76 f-h	2.10 k	17.64 ef	1.50 e-g	5.37 d-f
Perry	2.58 e-g	1.36 f-h	96.06 b-d	1.81 k	17.86 e	1.64 a-c	5.30 e-g
CHAMPS	2.58 e-g	1.35 f-h	94.41 e-g	1.97 k	17.99 c-e	1.53 d-f	5.28 f-h
Phillips	2.58 e-g	1.37 e-h	96.07 b-d	1.77 k	17.95 de	1.64 a-c	5.27 f-h
Bailey	2.53 f-h	1.35 f-h	96.27 bc	1.78 k	17.67 ef	1.66 ab	5.19 g-j
Georgia 08V	2.65 c-e	1.42 b-e	77.31 r	18.68 b	15.11 i	0.33 op	5.46 c-e
Florida Fancy	2.73 c	1.45 b	77.48 qr	17.73 b-d	14.70 j	0.33 op	5.57 c
Sugg	2.53 f-h	1.28 jk	95.52 c-e	2.00 k	17.19 g	1.62 a-c	5.12 i-l
VA 98R	2.40 k-m	1.40 b-f	94.80 d-f	1.97 k	17.81 ef	1.56 c-e	5.07 j-n
Titan	2.63 de	1.35 f-h	92.09 i-k	2.38 k	17.64 ef	1.39 h-j	5.48 cd
VT 004152	2.67 c-e	1.27 jk	93.23 g-i	2.15 k	18.29 b-d	1.44 f-i	5.44 c-e
VT 003200	2.74 c	1.40 b-f	93.24 g-i	2.20 k	17.67 ef	1.46 f-h	5.54 c
VT 024024	2.53 f-h	1.37 e-h	93.93 fg	2.27 k	17.61 ef	1.50 e-g	5.27 f-h
VT 024051	2.50 g-i	1.34 g-i	93.64 f-h	2.02 k	18.30 b-d	1.47 e-h	5.24 f-i
N04074FCT	2.70 cd	1.45 bc	95.51 c-e	1.88 k	17.75 ef	1.61 b-d	5.46 cd
N05006	2.48 h-k	1.41 b-f	97.69 a	1.54 k	18.55 ab	1.71 a	5.11 i-m
N05008	2.48 h-k	1.40 b-f	96.97 ab	1.58 k	18.79 a	1.66 ab	5.21 g-j
N05024J	2.50 g-j	1.33 h-j	92.56 h-j	2.32 k	17.46 fg	1.42 g-i	5.16 g-k
N07033oISm	2.41 i-l	1.38 d-h	78.87 n-p	18.05 bc	14.28 k	0.41 no	5.14 h-l
N07036oISmT	2.30 o-r	1.36 f-h	77.65 p-r	21.29 a	14.06 kl	0.31 p	5.00 l-p
N07037oISm	2.35 l-o	1.36 f-h	82.43 l	7.89 j	15.06 ij	0.71 l	5.07 j-n
N08069oIJCT	2.40 k-n	1.40 b-g	91.39 jk	3.02 k	16.36 h	1.36 i-k	5.03 k-o
N08070oIJC	2.22 r	1.38 d-h	80.48 m	12.49 hi	13.97 lm	0.53 m	4.77 r
N08071oIJC	2.24 qr	1.39 c-g	79.70 mn	13.56 gh	13.77 lm	0.47 mn	4.82 qr
N08072oICT	2.26 p-r	1.38 d-h	79.36 m-o	14.71 fg	13.90 lm	0.44 mn	4.87 p-r
N08073oICT	2.26 p-r	1.41 b-f	78.71 n-q	16.69 b-f	13.68 m	0.38 n-p	4.89 o-r
N08074oIC	2.31 n-q	1.39 c-g	79.65 mn	14.79 fg	14.03 k-m	0.46 mn	4.96 m-q
N08075oICT	2.36 l-o	1.40 b-g	79.19 m-o	14.96 e-g	13.77 lm	0.42 no	5.02 k-p
N08081oIJC	2.33 l-p	1.26 k	78.90 n-p	15.77 d-f	14.07 kl	0.41 no	4.91 o-r
N08082oIJCT	2.34 l-p	1.29 i-k	78.53 n-r	16.07 c-f	13.99 k-m	0.38 n-p	4.94 n-q
N08085oIJCT	2.34 l-p	1.32 h-j	78.90 n-p	16.81 b-e	14.02 k-m	0.41 no	4.93 n-q
N08087oIJCT	2.32 m-q	1.29 i-k	78.70 n-q	15.89 d-f	13.92 k-m	0.39 n-p	4.89 o-r
SPT 06-06	3.59 a	1.61 a	91.03 k	2.57 k	18.36 bc	1.30 jk	6.55 a
SPT 06-07	3.57 a	1.56 a	90.80 k	2.37 k	18.53 ab	1.29 k	6.54 a
97x22-HO2-2-B2-1-1-2B	2.89 b	1.15 l	78.03 o-r	11.46 i	16.48 h	0.44 mn	5.73 b
Mean	2.54	1.37	87.47	8.02	16.27	1.03	5.24
LSD_{0.05}²	0.09	0.58	1.34	2.00	0.38	0.10	0.15

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 34. 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, (2009 – 2010)¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.27 b ²	2.60 g	50.14 h	30.76 b	1.24 k	1.16 f
Gregory	9.19 j	2.95 c	54.19 b	27.09 ef	1.41 bc	1.21 de
Perry	9.71 c-e	2.84 de	50.94 gh	29.94 bc	1.38 c-e	1.15 f
CHAMPS	9.68 c-f	2.83 de	52.99 c-e	27.89 ef	1.36 e-g	1.23 d
Phillips	9.83 cd	2.88 ef	50.95 gh	29.99 bc	1.32 hi	1.18 ef
Bailey	9.67 c-g	2.63 g	51.32 g	29.89 bc	1.31 ij	1.20 de
Georgia 08V	6.61 k	2.89 cd	77.94 a	5.62 g	1.37 e-g	1.53 b
Florida Fancy	6.28 l	2.88 cd	78.60 a	5.09 g	1.40 b-d	1.62 a
Sugg	9.48 gh	2.60 g	52.65 d-f	29.00 cd	1.29 j	1.17 ef
VA 98R	10.12 b	2.72 f	51.52 fg	29.49 c	1.25 k	1.15 f
VT 004152	9.54 e-h	3.36 a	53.27 b-d	27.33 ef	1.53 a	1.03 h
VT 003200	9.26 ij	2.91 cd	54.13 b	27.02 f	1.41 bc	1.18 ef
VT 024024	9.50 f-h	2.86 de	53.34 b-d	27.86 ef	1.38 d-f	1.18 ef
VT 024051	9.85 c	3.17 b	52.53 d-f	28.09 de	1.42 b	1.06 gh
N04074FCT	9.42 hi	2.73 f	51.97 e-g	29.14 c	1.32 hi	1.27 c
N05006	10.81 a	2.55 g	48.07 i	32.30 a	1.23 k	1.17 ef
N05008	10.64 a	2.87 c-e	48.27 i	31.96 a	1.34 gh	1.07 g
N05024J	9.66 d-g	2.85 de	53.81 bc	27.32 ef	1.35 g-h	1.16 f
Mean	9.42	2.84	54.81	26.43	1.35	1.21
LSD_{0.05}²	0.20	0.09	1.14	1.05	0.03	0.04

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 34. 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, (2009 – 2010)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
NC-V 11	2.42 ij ²	1.42 a-c	97.32 bc	1.65 b	17.94 c	1.72 ab	5.08 fg
Gregory	2.60 c-f	1.37 c-e	94.47 ef	2.02 b	17.52 g	1.55 d	5.38 b-d
Perry	2.66 a-d	1.39 b-e	96.58 cd	1.73 b	17.97 c	1.67 bc	5.43 a-c
CHAMPS	2.64 a-e	1.39 b-e	94.85 e	1.92 b	17.90 cd	1.56 d	5.39 b-d
Phillips	2.59 d-f	1.35 ef	96.69 cd	1.71 b	17.88 c-e	1.68 bc	5.27 de
Bailey	2.57 ef	1.39 b-e	96.87 b-d	1.73 b	17.57 g	1.70 a-c	5.27 de
Georgia 08V	2.63 b-e	1.40 a-d	77.97 g	18.18 a	14.91 i	0.37 f	5.40 a-d
Florida Fancy	2.70 ab	1.43 ab	77.69 g	17.63 a	14.70 i	0.34 f	5.54 a
Sugg	2.55 fg	1.27 h	96.43 d	1.86 b	17.18 h	1.69 bc	5.11 fg
VA 98R	2.37 j	1.38 c-e	96.30 d	1.79 b	17.83 c-f	1.65 c	5.00 g
VT 004152	2.67 a-c	1.27 gh	93.97 f	2.01 b	18.37 b	1.49 e	5.47 ab
VT 003200	2.71 a	1.37 c-e	94.29 ef	2.04 b	17.66 e-g	1.53 de	5.49 ab
VT 024024	2.54 f-h	1.36 d-f	95.05 e	2.03 b	17.63 fg	1.58 d	5.27 de
VT 024051	2.53 f-h	1.35 ef	94.67 ef	1.89 b	18.32 b	1.53 de	5.29 c-e
N04074FCT	2.71 a	1.44 a	96.18 d	1.81 b	17.62 fg	1.65 c	5.47 ab
N05006	2.47 g-i	1.39 a-e	98.21 a	1.50 b	18.45 b	1.75 a	5.09 fg
N05008	2.47 hi	1.38 c-e	97.72 ab	1.52 b	18.70 a	1.71 a-c	5.19 ef
N05024J	2.53 f-h	1.32 fg	94.52 ef	2.02 b	17.71 d-g	1.54 de	5.20 ef
Mean	2.58	1.37	93.88	3.59	17.55	1.48	5.30
LSD_{0.05}²	0.08	0.05	0.87	0.90	0.22	0.06	0.14

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 35. 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, (2008 – 2010)¹.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
NC-V 11	10.31 b ²	2.57 hi	49.88 f	31.09 b	1.22 j	1.15 ef
Gregory	9.22 g	2.92 c	54.06 b	27.32 g	1.39 bc	1.20 cd
Perry	9.71 de	2.82 de	50.86 e	30.11 c	1.37 cd	1.14 f
CHAMPS	9.70 de	2.81 de	52.85 c	28.09 fg	1.35 d-f	1.22 c
Phillips	9.85 cd	2.74 ef	50.76 ef	30.26 bc	1.31 g-i	1.18 de
Bailey	9.70 de	2.61 gh	51.13 e	30.14 c	1.30 hi	1.20 cd
Florida Fancy	6.36 h	2.85 cd	78.21 a	5.51 h	1.38 bc	1.60 a
Sugg	9.50 f	2.57 hi	52.52 cd	29.19 de	1.28 i	1.17 d-f
VA 98R	10.17 b	2.68 fg	51.05 e	30.02 cd	1.23 j	1.15 ef
VT 004152	9.61 ef	3.33 a	52.79 c	27.87 fg	1.51 a	1.01 h
VT 024024	9.57 ef	2.82 de	52.86 c	28.40 ef	1.35 de	1.16 ef
VT 024051	9.88 c	3.17 b	52.38 cd	28.28 f	1.41 b	1.05 g
N04074FCT	9.46 f	2.68 fg	51.64 de	29.54 cd	1.30 g-i	1.27 b
N05006	10.84 a	2.52 i	47.75 g	32.66 a	1.21 j	1.18 de
N05008	10.68 a	2.84 d	48.02 g	32.28 a	1.32 f-h	1.07 g
N05024J	9.78 cd	2.82 de	53.04 c	28.08 fg	1.33 e-g	1.15 ef
Mean	9.64	7.80	53.13	28.04	1.33	1.18
LSD_{0.05}²	0.17	0.08	0.96	0.89	0.03	0.03

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 35. 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, (2008 – 2010)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
NC-V 11	2.39 hi ²	1.39 a-c	97.65 bc	1.62 b	17.89 c	1.74 ab	5.01 hi
Gregory	2.56 de	1.34 de	94.75 f	2.00 b	17.43 e	1.57 d-f	5.28 c-f
Perry	2.63 a-c	1.36 c-e	96.79 d	1.71 b	17.89 c	1.68 c	5.36 a-d
CHAMPS	2.61 b-d	1.37 b-e	95.08 ef	1.90 b	17.84 c	1.58 de	5.33 b-e
Phillips	2.57 c-e	1.34 de	97.00 cd	1.69 b	17.80 c	1.70 bc	5.21 e-g
Bailey	2.55 de	1.37 b-e	97.13 cd	1.71 b	17.52 e	1.72 bc	5.21 e-g
Florida Fancy	2.68 ab	1.41 ab	78.07 g	16.68 a	14.68 g	0.37 g	5.47 a
Sugg	2.53 ef	1.25 gh	96.65 d	1.84 b	17.12 f	1.71 bc	5.06 hi
VA 98R	2.34 i	1.36 c-e	96.81 d	1.74 b	17.78 c	1.69 c	4.93 i
VT 004152	2.64 a-c	1.24 h	94.47 f	1.95 b	18.33 b	1.52 f	5.39 a-c
VT 024024	2.51 e-g	1.33 ef	95.56 e	1.96 b	17.58 de	1.61 d	5.19 fg
VT 024051	2.51 e-g	1.33 ef	94.86 ef	1.87 b	18.29 b	1.55 ef	5.25 d-g
N04074FCT	2.69 a	1.42 a	96.58 d	1.77 b	17.55 de	1.68 c	5.41 ab
N05006	2.46 f-h	1.38 a-d	98.57 a	1.47 b	18.41 b	1.78 a	5.05 hi
N05008	2.44 gh	1.35 c-e	98.04 ab	1.50 b	18.64 a	1.73 a-c	5.12 gh
N05024J	2.51 e-g	1.29 fg	95.16 ef	1.94 b	17.73 cd	1.58 de	5.13 gh
Mean	2.54	1.35	95.19	2.71	17.66	1.58	5.21
LSD_{0.05}²	0.07	0.05	0.74	0.58	0.20	0.05	0.13

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

Calcium Results

Table 36. Calcium content (ppm)¹ in kernels from PVQE small plots in 2010.

Variety or Line	Tidewater AREC, VA	Southampton Co., VA	Martin Co., NC	Rocky Mt., NC	Whiteville, NC	Florence, SC	Average across locations
NC-V 11	552 c-k ²	590 a-e	662 a-c	879 b-f	391 d-f	290 c-g	569 c-g
Gregory	553 c-k	650 a-c	656 a-d	866 c-g	486 a-c	327 b-g	587 a-f
Perry	632 ab	641 a-c	669 ab	1014 b	434 b-f	273 d-g	621 a-d
CHAMPS	678 a	615 a-e	654 a-d	1009 bc	527 a	279 d-g	673 a
Phillips	583 b-e	600 a-e	624 a-g	843 d-h	420 c-f	335 b-g	577 b-f
Bailey	555 c-j	573 a-f	587 b-i	840 d-h	415 c-f	298 b-g	551 c-g
Georgia 08V	597 bc	728 a	635 a-f	872 b-g	437 b-e	378 a-d	604 a-e
Florida Fancy	539 d-l	579 a-f	618 a-g	909 b-f	403 c-f	384 a-c	569 c-g
Sugg	528 e-m	526 c-g	568 c-i	921 b-e	434 b-e	293 c-g	545 c-h
VA 98R	527 e-m	604 a-e	623 a-g	817 d-i	451 a-d	341 b-g	558 c-g
Titan	528 e-m	529 c-g	605 a-h	730 g-i	435 b-e	313 b-g	534 d-h
VT 004152	665 a	724 ab	697 a	939 b-d	516 ab	401 ab	661 ab
VT 003200	547 c-k	590 a-e	570 b-i	896 b-f	445 a-d	322 b-g	568 c-g
VT 024024	590 b-d	607 a-e	618 a-g	1161 a	423 c-f	457 a	629 a-c
VT 024051	548 c-k	580 a-e	619 a-g	823 d-i	412 c-f	340 b-g	559 c-g
N04074FCT	565 c-h	463 e-g	619 a-g	886 b-f	401 c-f	249 g	551 c-g
N05006	552 c-k	472 e-g	588 b-i	714 hi	375 d-g	342 b-g	528 e-h
N05008	583 b-e	527 c-g	580 b-i	777 e-i	404 c-f	351 b-g	552 c-g
N05024J	498 j-n	637 a-d	578 b-i	769 f-i	356 e-g	307 b-g	520 e-i
N07033oISm	513 g-n	587 a-e	534 g-j	874 b-g	419 c-f	332 b-g	534 d-h
N07036oISmT	488 l-n	565 b-f	590 b-i	850 d-h	435 b-e	368 a-e	539 d-h
N07037oISm	507 i-n	526 c-g	585 b-i	823 d-i	384 d-f	352 a-g	531 e-h
N08069oIJCT	464 no	579 a-f	466 j	826 d-h	375 d-g	299 b-g	486 g-i
N08070oIJC	404 p	400 g	510 h-j	681 i	345 fg	261 fg	434 i
N08071oIJC	408 op	421 fg	499 ij	802 d-i	375 d-g	280 c-g	457 hi
N08072oICT	478 mn	405 g	543 f-j	892 b-f	382 d-f	341 b-g	508 f-i
N08073oICT	488 l-n	480 d-g	558 d-j	831 d-h	405 c-f	301 b-g	513 f-i
N08074oIC	518 f-n	530 c-g	542 f-j	849 d-h	420 c-f	266 e-g	522 e-i
N08075oICT	556 c-i	508 c-g	565 c-j	773 f-i	382 d-f	354 a-f	536 d-h
N08081oIJC	510 h-n	514 c-g	546 e-j	849 d-h	391 d-f	286 c-g	518 e-i
N08082oIJCT	496 k-n	509 c-g	566 c-j	810 d-i	433 b-f	333 b-g	523 e-h
N08085oIJCT	532 e-m	498 c-g	501 ij	826 d-h	394 d-f	358 a-f	520 e-i
N08087oIJCT	508 h-n	497 c-g	583 b-i	888 b-f	402 c-f	356 a-f	540 d-h
SPT 06-06	570 c-g	619 a-e	612 a-g	822 d-i	290 g	248 g	543 c-h
SPT 06-07	582 b-e	634 a-d	663 a-c	789 e-i	404 c-f	310 b-g	576 b-f
97x22-HO2-2-B2-1-1-2B	571 c-f	618 a-e	643 a-e	849 d-h	419 c-f	306 b-g	575 b-f
Mean	540	559	591	853	412	324	550
LSD_{0.05}²	58	160	101	144	89	104	89

¹ Calcium is measured by dry-ashing and analyzed by atomic spectrophotometry. Calcium content greater than 420 ppm is needed for germination.

² Least significant difference at 5% probability level.

Calcium Results

Table 37. Calcium content (ppm)¹ in kernels from PVQE small plots @ Tidewater AREC (Suffolk), VA in 2010.

Variety or Line	Planting Date 1	Planting Date 2	Planting Date 3
NC-V 11	497 e-j ²	557 c-h	602 b-f
Gregory	556 c-g	529 f-h	576 d-i
Perry	611 a-c	617 a-f	667 a-c
CHAMPS	684 a	659 ab	693 a
Phillips	523 e-h	640 a-c	588 c-g
Bailey	503 e-j	624 a-e	537 f-m
Georgia 08V	560 b-f	618 a-f	613 a-f
Florida Fancy	542 c-h	526 gh	549 e-l
Sugg	485 g-k	515 g-i	585 d-h
VA 98R	545 c-h	554 c-h	482 k-m
Titan	542 c-h	563 c-g	488 j-m
VT 004152	633 ab	686 a	677 ab
VT 003200	522 e-h	551 c-h	567 d-j
VT 024024	524 e-h	626 a-e	620 a-e
VT 024051	546 c-h	543 d-h	554 e-k
N04074FCT	565 b-e	563 c-g	568 d-j
N05006	527 d-h	573 b-g	555 e-k
N05008	600 b-d	554 c-h	601 b-f
N05024J	484 g-k	472 h-j	537 f-m
N07033olSm	547 c-h	540 e-h	464 mn
N07036olSmT	475 h-k	491 g-j	496 i-m
N07037olSm	503 e-j	502 g-j	516 g-m
N08069oIJCT	472 h-k	414 jk	507 g-m
N08070oIJC	433 jk	381 k	396 n
N08071oIJC	323 l	433 i-k	470 l-n
N08072oICT	417 k	521 g-i	494 j-m
N08073oICT	440 i-k	499 g-j	509 g-m
N08074oIC	489 f-k	515 g-i	539 e-m
N08075oICT	529 d-h	581 b-g	558 d-k
N08081oIJC	515 e-i	472 h-j	544 e-m
N08082oIJCT	486 f-k	495 g-j	507 g-m
N08085oIJCT	488 f-k	552 c-h	555 e-k
N08087oIJCT	501 e-j	516 g-i	504 h-m
SPT 06-06	561 b-f	551 c-h	598 b-f
SPT 06-07	545 c-h	632 a-d	567 d-j
97x22-HO2-2-B2-1-1-2B	500 e-j	577 b-g	637 a-d
Mean	518	546	553
LSD_{0.05}²	75	90	81

¹Calcium is measured by dry-ashing and analyzed by atomic spectrophotometry. Calcium content greater than 420 ppm is needed for germination.

² Least significant difference at 5% probability level.

Calcium Results

Table 38. Calcium content (ppm)¹ in kernels from PVQE small plots @ Martin Co., NC in 2010.

Variety or Line	Planting Date 1	Planting Date 2
NC-V 11	633 a-c ²	690 a-e
Gregory	623 a-c	689 a-f
Perry	562 b-f	776 a
CHAMPS	647 ab	660 b-h
Phillips	599 a-d	648 b-h
Bailey	563 b-f	612 c-k
Georgia 08V	567 b-f	703 a-d
Florida Fancy	559 b-f	676 a-g
Sugg	562 b-f	573 g-k
VA 98R	564 b-f	682 a-f
Titan	518 c-h	692 a-e
VT 004152	690 a	703 a-d
VT 003200	528 c-g	611 c-k
VT 024024	578 a-e	672 a-h
VT 024051	563 b-f	674 a-h
N04074FCT	521 c-g	716 a-c
N05006	498 d-h	677 a-g
N05008	545 b-f	615 c-k
N05024J	528 c-g	628 b-j
N07033olSm	486 d-h	581 f-k
N07036olSmT	595 a-d	585 e-k
N07037olSm	555 b-f	614 c-k
N08069olJCT	403 h	529 jk
N08070olJC	425 gh	567 h-k
N08071olJC	460 f-h	537 i-k
N08072olCT	488 d-h	597 d-k
N08073olCT	516 c-h	600 d-k
N08074olC	473 e-h	611 c-k
N08075olCT	486 e-h	643 b-i
N08081olJC	469 e-h	623 c-k
N08082olJCT	545 b-f	587 e-k
N08085olJCT	485 d-h	518 k
N08087olJCT	534 b-g	633 b-j
SPT 06-06	557 b-f	667 b-h
SPT 06-07	592 a-d	734 ab
97x22-HO2-2-B2-1-1-2B	597 a-d	690 a-e
Mean	544	639
LSD_{0.05}²	118	108

¹ Calcium is measured by dry-ashing and analyzed by atomic spectrophotometry. Calcium content greater than 420 ppm is needed for germination.

² Least significant difference at 5% probability level.