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# PEANUT VARIETY AND QUALITY EVALUATION RESULTS 2023

## II. Quality Data

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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 5 Virginia-type cultivars that currently are on the market and 29 advanced breeding lines tested in the Peanut Variety and Quality Evaluation (PVQE) small plots in 2023. The small PVQE plots with 29 varieties were tested at four locations in Virginia, North Carolina, and South Carolina: Suffolk, VA, Martin Co., NC, Rocky Mount, NC, and Blackville, SC. At Suffolk, VA, at Martin Co., NC, and at Blackville, SC, two digs were achieved. For the other locations, only one dig was tested. Each genotype was replicated 2 times at each location and digging date. Varieties' names and pedigree are presented in Table 1. A detailed description of the plant material, test locations, weather conditions, and cultural practices is included in the PVQE 2021 Results. I. Agronomic and Grade Data, at <https://www.pubs.ext.vt.edu/SPES/spes-591/spes-591.html> .

## 2023 SMALL PLOT TESTS

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



## PLANT MATERIAL AND TEST LOCATIONS

**Table 1. Names and pedigree of the genotypes (advanced breeding lines and commercial varieties) evaluated in 2023.**

Genotype number	Variety/line	Parentage
1	Bailey II	Bailey /4/ X07016, Bailey // X05027, Bailey / N02060ol, X05249 /3/ Bailey
2	Emery	N03079FT*2 / Brantley
3	NC 20	N01015T / N00098ol, X02083 // Sugg
4	Sullivan	N03079FT*2 / N02059ol
5	Walton	2000x10-1-B2-3-2-2/97x48-HO3-7-B2-2-b3-B
6	N17045	Bailey*2 / Brantley, N10053ol /3/ CRSP 1050-110, Florida MDR 98 / Bayo Grande, 0020-20 // FNC94022-1-2-1-1-b3-B, N91026E / PI 576638
7	N17047	Bailey*2 / Brantley, N10053ol /3/ CRSP 1050-110, Florida MDR 98 / Bayo Grande, 0020-20 // FNC94022-1-2-1-1-b3-B, N91026E / PI 576638
8	N18010	N03079FT*2 / Brantley, N09037ol // Sugg
9	N18012	N03075FT / N00098ol, N09053olCSm // N08070olJC, N03079FT*2 / N02059ol
10	N18026	N03079FT*2 / N02054ol, N09042olF // Bailey II, Bailey*4 / N02060ol
11	N18029	Emery /3/ N11035olSrT, N03079FT*2 / Brantley, X03151 // Sugg
12	N18033	Sullivan /3/ N11045ol, N03079FT*2 / N02054ol, X03153 // N03078FT
13	N18039	Sullivan /3/ N11045ol, N03079FT*2 / N02054ol, X03153 // N03078FT
14	N18044	Emery // N10043olJ, N02006*2 / N02059ol
15	N18049	N07018JCSm // N12009olCLT, Bailey*4 / N02060ol
16	N18055	Emery // N10043olJ, N02006*2 / N02059ol
17	N19003	N09053olCSm /3/ X11043, N09053olCSm // X08054, N08059olFCT / GP-NC WS 16
18	N19006	N09053olCSm /3/ X11050, N09053olCSm // X08055, N08059olFCT / GP-NC WS 17
19	N19009	N03079FT*2 / Brantley, N09037ol // N12010ol, Bailey*4 / N02060ol
20	N19012	N03079FT*2 / N02054ol, N09039olF // Bailey II
21	N19013	Sullivan /4/ N11020olJ, N02059ol // N02006 / N02059ol, X03146 /3/ N03084FT
22	N19019	Sullivan /3/ N11045ol, N03079FT*2 / N02054ol, X03153 // N03078FT
23	N19021	Emery // N10043olJ, N02006*2 / N02059ol
24	N19024	Emery /3/ N11045ol, N03079FT*2 / N02054ol, X03153 // N03078FT
25	N19026	Emery /3/ N11045ol, N03079FT*2 / N02054ol, X03153 // N03078FT
26	N19028	Emery /3/ N11054B, N02005*4 // Wilson*3 / PI 599606
27	N19029	N03079FT*2 / Brantley, X03151 // Sugg, N11038olSrT /3/ Emery
28	N19030	N03079FT*2 / Brantley, X03151 // Sugg, N11038olSrT /3/ Emery
29	N19033	N03079FT*2 / N02059ol, X03155 // N05044FCSm, N13041olJ /3/ X14011, Bailey*4 / N02060ol, N12009olCLT // N11019olJ, N03090T*2 / N02064ol
30	N19034	N03079FT*2 / N02059ol, X03155 // N05044FCSm, N13041olJ /3/ X14011, Bailey*4 / N02060ol, N12009olCLT // N11019olJ, N03090T*2 / N02064ol
31	13x101-2-11-2-1-B	TUFRunner™ '297'/Spain
32	13x101-4-5-2-1-B	TUFRunner™ '297'/Spain
33	13x101-4-9-1-1-B	TUFRunner™ '297'/Spain
34	13x101-5-7-2-1-B	TUFRunner™ '297'/Spain

<sup>1</sup> N14023ol was released as a cultivar in 2021, as 'NC 20'.

## Small Test Plots

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 2023 PVQE locations and digging dates in Tables 20 through 28. Table 29 shows the content of the fatty acids averaged across all locations in 2023. Two- and three-year averages are included in Tables 30 and 31.

## Statistics:

Analysis of Variance was run for the cultivars and breeding lines on individual digging dates and locations, and averaged digging dates, locations, and years. When significant differences between cultivars and lines were detected, means were compared by the Fisher's LSD test and the minimum significant difference was included in the tables. These values were used to compare the varieties.

## Blanching Results

**Table 2. Laboratory sample blanching of Extra-Large Kernels (ELK) from Tidewater AREC (Suffolk, VA), Dig 1, 2023 (6 October).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.6 g-i	4.6 b-d	1.0 e-i	35.7 a	59.6 b-f	0.0 g	0.2 h
Emery	5.7 f-i	4.5 d	1.2 c-h	28.3 a-d	66.1 a-f	0.0 g	1.0 gh
NC-20	5.8 d-i	4.6 cd	1.2 c-g	24.4 b-f	66.6 a-f	0.5 fg	4.5 b
Sullivan	5.6 g-i	4.7 b-d	1.0 e-i	22.1 c-g	72.4 a-e	0.4 fg	1.3 f-h
Walton	5.6 g-i	4.8 a-d	0.8 hi	35.2 a	59.5 b-f	0.0 g	1.9 d-h
N17045	5.8 d-h	4.8 a-d	1.1 d-h	15.2 f-j	79.7 a-d	0.2 fg	0.7 gh
N17047	5.8 d-h	4.8 a-d	1.1 d-h	24.7 b-f	70.5 a-e	0.0 g	0.5 h
N18010	5.4 i	4.8 a-d	0.7 i	20.3 d-i	73.0 a-e	0.0 g	3.0 b-f
N18012	5.4 i	4.7 a-d	0.7 hi	7.7 j	88.8 a	0.4 fg	0.5 gh
N18026	5.5 i	4.7 a-d	0.8 hi	18.6 d-j	76.6 a-d	0.0 g	0.5 h
N18029	5.5 hi	4.9 a-c	0.7 i	11.8 h-j	83.4 a	0.5 fg	0.1 h
N18033	5.6 hi	4.7 b-d	0.9 f-i	9.3 j	82.2 a	0.0 g	4.2 bc
N18039	5.7 e-i	4.8 a-d	1.0 e-i	12.8 g-j	81.9 a	1.8 d-f	0.3 h
N18044	5.6 hi	4.8 a-d	0.8 hi	8.9 j	82.1 a	2.7 c-e	2.8 b-g
N18049	5.6 hi	4.7 a-d	0.9 g-i	11.0 ij	81.9 a	0.7 fg	1.9 e-h
N18055	5.6 g-i	4.8 a-d	0.9 g-i	9.0 j	81.0 ab	3.1 cd	3.5 b-e
N19003	5.8 d-h	4.9 ab	0.9 f-i	10.8 ij	82.9 a	0.0g	3.0 b-f
N19006	6.2 a-c	5.1 a	1.1 d-h	19.3 d-j	47.0 f	0.6 fg	0.3 h
N19009	6.0 b-e	4.8 a-d	1.3 b-f	15.3 f-j	75.4 a-e	1.3 e-g	4.4 bc
N19012	6.2 a-c	4.7 b-d	1.5 a-c	34.7 a	57.5 d-f	0.9 fg	1.1 f-h
N19013	6.5 a	4.7 a-d	1.8 a	30.4 a-c	62.4 a-f	1.2 e-g	1.8 e-h
N19019	6.3 ab	5.1 a	1.3 b-f	18.1 e-j	75.8 a-e	0.0 g	2.0 d-h
N19021	6.2 a-c	4.6 b-d	1.6 ab	18.9 d-j	74.3 a-e	0.0 g	2.5 c-g
N19024	6.1 b-d	4.8 a-d	1.3 b-e	11.5 h-j	83.4 a	0.7 fg	1.1 f-h
N19026	6.0 b-e	4.9 ab	1.1 d-h	13.7 g-j	80.0 a-c	0.5 fg	1.1 f-h
N19028	6.2 a-c	4.7 a-d	1.5 a-c	27.1 a-e	66.9 a-f	0.2 fg	1.2 f-h
N19029	6.0 c-f	4.9 a-c	1.1 d-h	35.8 a	57.9 c-f	0.1 g	1.4 f-h
N19030	6.0 c-f	4.9 a-c	1.1 d-h	33.9 ab	59.3 b-f	0.5 fg	2.1 d-h
N19033	6.2 a-c	4.7 a-d	1.5 a-c	20.9 c-h	69.5 a-e	0.4 fg	4.6 b
N19034	5.9 c-g	4.5 d	1.4 a-c	8.7 j	83.6 a	0.8 fg	3.9 b-d
13x101-2-11-2-1-B	5.9 c-g	4.8 a-d	1.1 d-h	19.3 d-j	54.1 ef	5.3 b	17.9 a
13x101-4-5-2-1-B	5.7 f-i	4.8 a-d	0.9 g-i	18.3 e-j	69.8 a-e	3.8 bc	4.1 bc
13x101-4-9-1-1-B	5.8 d-h	4.9 a-c	1.0 e-i	14.0 g-j	78.3 a-d	2.8 c-e	2.8 b-g
13x101-5-7-2-1-B	5.8 d-h	4.6 b-d	1.2 c-g	14.8 f-j	70.3 a-e	7.0 a	4.1 bc
<b>Mean</b>	<b>5.8</b>	<b>4.8</b>	<b>1.1</b>	<b>19.4</b>	<b>72.2</b>	<b>1.1</b>	<b>2.5</b>
<b>LSD<sup>1</sup></b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>10.0</b>	<b>22.3</b>	<b>1.7</b>	<b>2.0</b>

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

## Blanching Results

**Table 3. Laboratory sample blanching of Extra-Large Kernels (ELK) from Tidewater AREC (Suffolk, VA), Dig 2, 2023 (16 October).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.6 fg	4.8 a-d	0.9 ef	19.2 d-g	75.4 b-e	0.0 f	1.6 de
Emery	6.1 a-f	4.8 a-d	1.3 a-f	25.3 b-e	69.4 d-h	0.2 ef	0.7 de
NC-20	5.6 fg	4.7 c-e	1.0 c-f	6.4 i-l	85.6 a-c	2.1 c-f	2.0de
Sullivan	5.8 d-g	4.6 de	1.2 a-f	28.0 b-d	66.5 e-h	0.5 ef	0.8 de
Walton	5.7 e-g	4.8 a-d	1.0 c-f	30.7 a-c	62.9 f-i	0.2 f	2.9 c-e
N17045	5.6 fg	4.7 c-e	1.0 c-f	16.8 d-i	77.4 a-e	0.3 ef	1.5 de
N17047	5.6 fg	4.8 a-d	0.9 ef	10.7 f-l	84.9 a-c	0.0 f	0.6 e
N18010	5.6 fg	4.7 c-e	0.9 d-f	22.6 c-e	72.2 d-f	0.4 ef	0.8 de
N18012	5.6 fg	4.7 b-e	0.9 d-f	16.3 e-j	77.1 a-e	0.0 f	2.9 c-e
N18026	5.6 fg	4.8 a-c	0.8 f	7.4 h-l	85.0 a-c	1.2 ef	2.5 c-e
N18029	5.6 fg	4.7 b-e	0.9 d-f	10.6 f-l	82.3 a-d	1.4 d-f	2.2 de
N18033	5.5 g	4.6 de	1.0 c-f	8.6 g-l	81.5 a-d	1.2 ef	4.7 b-e
N18039	5.7 e-g	4.7 c-e	1.0 b-f	12.5 e-l	81.8 a-d	2.9 b-e	1.2 de
N18044	5.6 f-g	4.7 b-e	0.9 d-f	4.2 l	86.9 ab	4.3 bc	1.0 de
N18049	5.8 d-g	4.8 a-d	1.0 b-f	8.3 g-l	82.8 a-d	1.2 ef	3.6 c-e
N18055	5.9 c-g	4.7 b-e	1.2 a-f	6.0 i-l	83.8 a-d	4.4 bc	2.8 c-e
N19003	5.7 e-g	4.9 a-c	0.9 ef	4.9 kl	86.5 ab	0.1 f	5.0 b-d
N19006	6.0 a-f	4.9 a-c	1.2 a-f	14.1 e-l	80.0 a-d	0.5 ef	0.9 de
N19009	6.1 a-e	4.7 b-e	1.4 a-d	9.0 g-l	81.6 a-d	2.5 c-f	2.2 de
N19012	6.4 ab	4.8 a-c	1.6 a	18.6 d-h	75.6 b-e	0.5 ef	0.8 de
N19013	6.3 a-c	4.8 a-c	1.5 ab	21.9 c-f	65.9 e-i	2.4 c-f	3.8 c-e
N19019	6.2 a-d	4.8 a-d	1.5 a-c	21.3 c-f	71.5 d-g	0.2 f	1.9 de
N19021	6.4 a	5.0 a	1.5 a-c	10.9 f-l	74.1 c-f	4.1 b-d	6.8 bc
N19024	6.1 a-e	4.9 ab	1.2 a-f	9.0 g-l	84.8 a-c	0.9 ef	1.7 de
N19026	6.0 a-f	4.8 a-c	1.2 a-f	12.8 e-k	80.8 a-d	1.1 ef	1.6 de
N19028	5.8 d-g	4.7 c-e	1.2 a-f	5.3 j-l	88.1 a	1.8 c-f	1.5 de
N19029	6.2 a-d	4.9 a-c	1.4 a-e	39.5 a	64.2 i	0.9 ef	1.0 de
N19030	5.9 b-g	4.8 a-d	1.2 a-f	35.1 ab	59.2 hi	0.6 ef	1.2 de
N19033	6.0 a-f	4.5 e	1.5 ab	9.9 g-l	83.9 a-d	0.1 f	1.7 de
N19034	5.9 c-g	4.5 e	1.4 a-e	16.0 e-k	76.1 b-e	0.0 f	2.9 c-e
13x101-2-11-2-1-B	5.9 b-g	4.8 a-c	1.1 a-f	17.3 d-i	60.0 g-i	4.0 b-d	14.4 a
13x101-4-5-2-1-B	5.9 b-g	4.8 a-d	1.2 a-f	18.3 d-h	66.0 e-i	5.6 ab	5.8 b-d
13x101-4-9-1-1-B	5.8 d-g	4.8 a-d	1.0 b-f	11.8 e-l	76.3 a-e	3.1 b-e	4.8 b-e
13x101-5-7-2-1-B	5.9 b-g	4.9 a-c	1.1 a-f	12.4 e-l	67.0 e-h	8.3 a	8.8 b
<b>Mean</b>	<b>5.9</b>	<b>4.8</b>	<b>1.1</b>	<b>15.3</b>	<b>76.4</b>	<b>1.7</b>	<b>2.9</b>
<b>LSD<sup>1</sup></b>	<b>0.5</b>	<b>0.2</b>	<b>0.5</b>	<b>11.4</b>	<b>12.1</b>	<b>2.7</b>	<b>4.4</b>

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

## Blanching Results

**Table 4. Laboratory sample blanching of Extra-Large Kernels (ELK). Averages of both digging dates from Tidewater AREC (Suffolk, VA), 2023.**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.6 i-l	4.7 d-g	0.9 h-k	27.5 b-d	67.5 c-i	0.0 j	0.9 h-j
Emery	5.8 e-j	4.6 e-g	1.2 c-h	27.3 b-e	67.2 c-i	0.1 j	0.9 g-j
NC-20	5.7 g-l	4.6 fg	1.1 e-j	15.4 g-m	76.1 a-f	1.3 f-j	3.3 c-h
Sullivan	5.7 g-l	4.6 fg	1.1 e-j	25.0 c-f	69.4 b-h	0.4 h-j	1.0 g-j
Walton	5.7 h-l	4.8 a-f	0.9 i-k	33.0 a-c	61.2 ghi	0.1 j	2.4 d-j
N17045	5.7 g-l	4.7 c-g	1.0 f-k	16.0 g-l	78.5 a-d	0.2 ij	1.1 g-j
N17047	5.7 g-l	4.8 b-f	1.0 g-k	17.7 e-j	77.7 a-d	0.0 j	0.5 j
N18010	5.5 l	4.7 b-g	0.8 k	21.4 d-g	72.6 a-g	0.2 ij	1.9 e-j
N18012	5.5 j-l	4.7 b-f	0.8 i-k	13.4 g-m	81.0 a-c	0.1 ij	2.1 d-j
N18026	5.5 kl	4.8 a-f	0.8 k	13.0 g-m	80.8 a-c	0.6 g-j	1.5 f-j
N18029	5.6 j-l	4.8 fg	0.8 k	11.2 h-m	82.8 a	1.0 f-j	1.2 g-j
N18033	5.5 j-l	4.6 fg	0.9 h-k	8.9 j-m	81.9 ab	0.6 g-j	4.4 b-d
N18039	5.7 g-l	4.7 c-g	1.0 f-k	12.6 g-m	81.9 ab	2.4 c-f	0.7 ij
N18044	5.6 j-l	4.8 b-f	0.8 jk	6.5 m	84.5 a	3.5 b-d	1.9 e-j
N18049	5.7 h-l	4.7 b-f	0.9 h-k	9.7 i-m	82.3 a	0.9 f-j	2.7 c-j
N18055	5.7 g-l	4.7 b-f	1.0 f-k	7.5 lm	82.4 a	3.7 bc	3.1 c-i
N19003	5.8 f-k	4.9 a-c	0.9 i-k	7.8 k-m	84.7 a	0.0 j	4.0 c-e
N19006	6.1 b-e	5.0 a	1.1 d-i	16.7 f-k	63.5 f-i	0.5 g-j	0.6 j
N19009	6.1 b-e	4.7 b-f	1.3 b-e	12.1 h-m	78.5 a-d	1.9 e-h	3.3 c-h
N19012	6.3 a-c	4.7 b-f	1.5 ab	26.6 b-e	66.6 d-i	0.7 g-j	1.0 g-j
N19013	6.4 a	4.8 b-f	1.6 a	26.2 b-e	64.2 e-i	1.8 e-i	2.8 c-j
N19019	6.3 a-c	4.9 ab	1.4 a-e	19.7 d-h	73.7 a-g	0.1 j	2.0 e-j
N19021	6.3 ab	4.8 a-f	1.5 ab	14.9 g-m	74.2 a-f	2.1 d-g	4.6 b-d
N19024	6.1 b-e	4.8 a-d	1.3 b-f	10.3 i-m	84.1 a	0.8 g-j	1.4 f-j
N19026	6.0 c-f	4.9 a-d	1.2 d-i	13.3 g-m	80.4 a-c	0.8 g-j	1.3 g-j
N19028	6.0 c-f	4.7 d-g	1.3 b-e	16.2 f-l	77.5 a-d	1.0 f-j	1.4 g-j
N19029	6.1 b-e	4.9 a-d	1.2 c-g	37.6 a	56.1 i	0.5 g-j	1.2 g-j
N19030	5.9 d-g	4.8 a-e	1.1 d-i	34.5 ab	59.3 hi	0.6 g-j	1.6 e-j
N19033	6.1 b-d	4.6 fg	1.5 a-c	15.4 g-m	76.7 a-e	0.2 ij	3.1 c-i
N19034	5.9 d-h	4.5 g	1.4 a-d	12.4 h-m	79.9 a-c	0.4 h-j	3.4 c-g
13x101-2-11-2-1-B	5.9 d-h	4.8 a-e	1.1 d-j	18.3 e-i	57.0 hi	4.6 b	16.1 a
13x101-4-5-2-1-B	5.8 f-j	4.8 a-f	1.0 f-k	18.3 e-i	67.9 c-i	4.7 b	4.9 bc
13x101-4-9-1-1-B	5.8 f-j	4.8 a-e	1.0 f-k	12.9 g-m	77.3 a-d	3.0 c-e	3.8 c-f
13x101-5-7-2-1-B	5.9 d-i	4.7 b-f	1.1 d-i	13.6 g-m	68.6 c-i	7.6 a	6.5 b
<b>Mean</b>	<b>5.9</b>	<b>4.7</b>	<b>1.1</b>	<b>17.4</b>	<b>74.1</b>	<b>1.4</b>	<b>2.7</b>
<b>LSD<sup>1</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>0.3</b>	<b>9.1</b>	<b>13.1</b>	<b>1.6</b>	<b>2.5</b>

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

## Blanching Results

**Table 5. Laboratory sample blanching of Extra-Large Kernels (ELK) from Martin County, NC, Dig 1, 2023 (13 October).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.7 f-i	4.9 ab	0.8 e-g	15.9 b-i	72.2 a-g	0.0 ef	3.5 b-f
Emery	5.7 g-i	4.7 b-d	1.0 c-g	20.7 a-e	71.3 c-g	0.2 ef	3.6 b-f
NC-20	5.6 i	4.9 ab	0.7 g	8.4 g-i	83.8 ab	0.2 ef	4.7 b-d
Sullivan	6.0 d-g	4.8 a-c	1.2 b-e	18.8 b-g	75.0 a-g	0.5 ef	1.9 d-f
Walton	5.6 hi	4.7 b-d	0.9 d-g	26.3 ab	65.6 fg	0.1 ef	3.7 b-f
N17045	5.6 hi	4.6 cd	1.1 b-g	10.9 d-i	81.5 a-d	1.4 c-f	2.5 d-f
N17047	5.6 i	4.7 b-d	0.9 e-g	16.9 b-h	77.2 a-f	0.6 ef	2.0 d-f
N18010	5.8 f-i	4.7 b-d	1.1 b-f	21.2 a-d	71.9 b-g	0.3 ef	2.4 d-f
N18012	5.7 g-i	4.7 b-d	1.0 c-g	16.4 b-h	74.3 a-g	0.0 f	2.7 b-f
N18026	5.7 g-i	4.7 b-d	1.1 b-g	9.1 f-i	83.5 a-c	0.6 ef	2.9 b-f
N18029	5.7 g-i	4.8 a-d	0.9 d-g	6.1 hi	86.6 a	0.6 ef	3.0 b-f
N18033	5.7 g-i	4.5 d	1.2 b-e	9.4 e-i	82.5 a-d	0.2 ef	4.5 b-e
N18039	5.6 hi	4.8 a-c	0.8 e-g	6.5 hi	85.3 a	2.1 c-f	2.6 c-f
N18044	5.8 f-i	4.8 a-d	1.1 b-g	3.4 i	87.1 a	3.5 b-d	2.0 d-f
N18049	5.9 d-h	4.8 a-d	1.2 b-e	7.7 g-i	84.4 a	0.1 ef	3.8 b-f
N18055	5.7 g-i	4.8 a-c	0.9 e-g	6.1 hi	80.6 a-e	5.6 ab	3.6 b-f
N19003	5.7 g-i	5.0 a	0.7 fg	6.6 hi	83.8 ab	0.9 d-f	5.5 a-c
N19006	6.1 c-f	4.8 a-c	1.3 a-e	16.7 b-h	73.7 a-g	2.7 c-f	2.3 d-f
N19009	6.2 a-d	4.9 ab	1.4 a-c	12.0 c-i	77.1 a-f	2.0 c-f	4.2 b-f
N19012	6.4 ab	4.8 a-c	1.6 a	15.4 b-i	73.8 a-g	1.5 c-f	3.8 b-f
N19013	6.3 a-c	4.7 b-d	1.6 a	22.8 a-c	68.5 e-g	2.8 c-e	1.5 f
N19019	6.5 a	4.8 a-c	1.7 a	22.9 a-c	68.8 e-g	0.7 ef	2.7 c-f
N19021	5.9 e-i	4.9 ab	1.0 c-g	12.4 c-i	79.2 a-e	1.1 d-f	4.5 b-e
N19024	6.2 a-e	4.7 b-d	1.5 ab	9.5 e-i	81.9 a-d	2.3 c-f	2.8 b-f
N19026	6.3 a-c	4.9 ab	1.5 ab	4.5 i	79.1 a-e	3.5 b-d	3.9 b-f
N19028	6.2 a-e	4.9 ab	1.3 a-d	11.8 c-i	77.7 a-f	1.0 d-f	3.8 b-f
N19029	6.2 a-e	4.9 ab	1.3 a-d	31.0 a	63.0 g	0.3 ef	1.7 ef
N19030	5.9 e-i	4.9 ab	1.0 c-g	12.8 c-i	79.8 a-e	1.8 c-f	1.4 f
N19033	6.1 b-f	4.8 a-c	1.3 a-d	11.9 c-i	79.5 a-e	0.4 ef	3.2 b-f
N19034	6.1 b-f	4.8 a-c	1.3 a-d	7.2 hi	75.6 a-g	2.2 c-f	2.0 d-f
13x101-2-11-2-1-B	5.8 f-i	4.7 b-d	1.1 b-g	7.2 hi	77.6 a-f	3.8 bc	8.3 a
13x101-4-5-2-1-B	5.8 f-i	4.7 b-d	1.1 b-f	20.4 a-f	71.2 d-g	1.0 d-f	3.2 b-f
13x101-4-9-1-1-B	5.8 f-i	4.8 a-d	1.1 b-g	6.1 hi	77.7 a-f	7.2 a	5.7 ab
13x101-5-7-2-1-B	-	-	-	-	-	-	-
<b>Mean</b>	<b>5.9</b>	<b>4.8</b>	<b>1.1</b>	<b>13.2</b>	<b>77.3</b>	<b>1.6</b>	<b>3.3</b>
<b>LSD<sup>1</sup></b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>11.6</b>	<b>12.3</b>	<b>2.7</b>	<b>2.0</b>

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

## Blanching Results

**Table 6. Laboratory sample blanching of Extra-Large Kernels (ELK) from Martin County, NC, Dig 2, 2023 (19 October).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.8 e-h	4.8 ab	1.0 c-g	14.9 b-f	79.0 a-c	0.0 c	2.5 b-d
Emery	5.9 d-g	4.7 ab	1.2 b-f	21.5 b-e	72.7 a-c	0.0 c	1.4 cd
NC-20	5.5 h	4.7 ab	0.9 e-g	17.3 b-f	75.7 a-c	0.1 c	2.5 b-d
Sullivan	5.5 h	4.8 ab	0.7 g	14.5 b-f	79.6 a-c	0.0 c	1.6 cd
Walton	5.7 f-h	4.7 ab	1.0 c-g	29.0 ab	65.2 cd	0.6 c	1.8 b-d
N17045	5.7 f-h	4.6 ab	1.1 b-g	19.6 b-f	75.0 a-c	0.0 c	1.1 cd
N17047	5.6 gh	4.8 ab	0.8 fg	23.1 b-d	72.4 a-c	0.3 c	1.1 cd
N18010	5.8 d-h	4.6 b	1.3 b-d	23.0 b-d	71.2 bc	0.0 c	1.2 cd
N18012	5.5 gh	4.6 ab	0.9 c-g	18.0 b-f	76.9 a-c	0.0 c	1.0 cd
N18026	5.6 gh	4.8 ab	0.9 c-g	5.7 f	84.6 ab	1.4 bc	4.5 b
N18029	5.6 gh	4.9 a	0.8 fg	11.1 c-f	84.3 ab	0.0 c	0.4 d
N18033	5.7 f-h	4.7 ab	1.0 c-g	7.2 f	86.2 a	0.4 c	2.1 b-d
N18039	5.9 c-f	4.8 ab	1.2 b-f	11.8 c-f	79.6 a-c	1.3 bc	3.0 b-d
N18044	5.8 e-h	4.6 b	1.2 b-f	8.3 ef	84.2 ab	1.6 bc	2.6 b-d
N18049	5.8 d-g	4.7 ab	1.1 b-g	7.0 f	85.9 a	0.9 bc	3.2 b-d
N18055	5.7 f-h	4.8 ab	0.9 d-g	5.9 f	85.5 ab	3.2 ab	1.3 cd
N19003	5.7 f-h	4.9 a	0.8 fg	10.3 c-f	82.4 ab	0.5 c	2.1 b-d
N19006	6.3 b	4.9 a	1.4 ab	16.0 b-f	74.9 a-c	2.3 bc	1.9 b-d
N19009	6.0 b-e	4.8 ab	1.2 b-e	13.5 b-f	79.3 a-c	0.2 c	1.8 b-d
N19012	6.1 b-d	5.0 a	1.1 b-g	15.7 b-f	77.5 a-c	0.0 c	3.2 b-d
N19013	6.7 a	5.0 a	1.7 a	12.9 b-f	79.4 a-c	2.0 bc	1.4 cd
N19019	6.0 b-e	4.8 ab	1.2 b-f	12.5 b-f	81.1 a-c	0.9 bc	1.6 b-d
N19021	6.1 b-d	4.9 a	1.2 b-e	11.4 c-f	82.6 ab	0.6 c	1.6 cd
N19024	6.0 b-f	5.0 a	1.1 b-g	10.5 c-f	82.4 ab	1.1 bc	2.2 b-d
N19026	6.3 b	4.9 a	1.4 a-c	10.1 c-f	79.4 a-c	5.4 a	1.0 cd
N19028	5.9 c-f	4.7 ab	1.3 b-d	9.6 d-f	83.2 ab	1.3 bc	1.5 cd
N19029	6.2 bc	4.8 ab	1.4 a-c	43.9 a	51.3 d	0.7 bc	0.6 cd
N19030	5.8 d-h	4.6 ab	1.2 b-f	28.3 a-c	63.3 cd	0.9 bc	3.4 bc
N19033	5.7 f-h	4.6 ab	1.1 b-g	15.6 b-f	76.2 a-c	0.4 c	3.1 b-d
N19034	5.9 c-f	4.8 ab	1.1 b-g	14.5 b-f	79.5 a-c	0.2 c	1.8 b-d
13x101-2-11-2-1-B	5.9 d-g	4.7 ab	1.2 b-f	6.7 f	76.8 a-c	5.4 a	8.3 a
13x101-4-5-2-1-B	5.8 d-g	4.7 ab	1.1 b-g	10.2 c-f	85.0 ab	0.6 c	1.0 cd
13x101-4-9-1-1-B	5.7 f-h	4.5 b	1.2 b-f	14.1 b-f	76.0 a-c	3.6 ab	1.9 b-d
13x101-5-7-2-1-B	5.9 d-g	4.8 ab	1.1 b-f	10.2 c-f	83.6 ab	2.0 bc	1.0 cd
<b>Mean</b>	<b>5.9</b>	<b>4.8</b>	<b>1.1</b>	<b>14.8</b>	<b>78.0</b>	<b>1.1</b>	<b>2.1</b>
<b>LSD<sup>1</sup></b>	<b>0.3</b>	<b>0.3</b>	<b>0.4</b>	<b>14.3</b>	<b>14.5</b>	<b>2.4</b>	<b>2.4</b>

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

## Blanching Results

**Table 7. Laboratory sample blanching of Extra-Large Kernels (ELK). Averages of both digging dates from Martin County, NC, 2023.**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.7 h-l	4.8 a-d	0.9 f-j	15.2 c-i	76.7 a-e	0.0 e	2.8 b-d
Emery	5.8 h-l	4.7 b-e	1.1 d-i	21.1 b-d	71.9 d-f	0.1 e	2.5 b-d
NC-20	5.5 l	4.8 a-d	0.8 j	12.9 d-j	79.7 a-e	0.2 e	3.6 b-d
Sullivan	5.7 i-l	4.8 a-d	0.9 f-j	16.6 c-h	77.3 a-e	0.2 e	1.7 b-d
Walton	5.6 j-l	4.7 b-e	0.9 f-j	27.6 ab	65.4 fg	0.3 e	2.7 b-d
N17045	5.7 i-l	4.6 e	1.1 d-i	15.2 c-i	78.2 a-e	0.7 de	1.8 b-d
N17047	5.6 kl	4.8 a-e	0.8 ij	20.0 b-e	74.8 c-e	0.4 e	1.6 cd
N18010	5.8 g-k	4.6 de	1.2 c-f	22.1 bc	71.5 ef	0.1 e	1.8 b-d
N18012	5.6 j-l	4.7 b-e	0.9 f-j	17.1 c-h	75.1 b-e	0.0 e	2.0 b-d
N18026	5.7 i-l	4.7 b-e	1.0 f-j	7.4 ij	84.0 ab	1.0 c-e	3.7 bc
N18029	5.6 j-l	4.8 a-d	0.8 h-j	8.6 g-j	85.4 a	0.3 e	1.7 b-d
N18033	5.7 i-l	4.6 de	1.1 d-i	8.3 h-j	84.3 ab	0.3 e	3.3 b-d
N18039	5.8 h-l	4.8 a-d	1.0 e-j	9.1 g-j	82.4 a-c	1.7 c-e	2.8 b-d
N18044	5.8 g-k	4.7 c-e	1.1 c-g	5.8 j	85.6 a	2.5 bc	2.3 b-d
N18049	5.9 e-j	4.7 b-e	1.1 c-g	7.3 ij	85.1 a	0.5 e	3.5 b-d
N18055	5.7 i-l	4.8 a-d	0.9 g-j	6.0 j	83.0 a-c	4.4 a	2.4 b-d
N19003	5.7 i-l	4.9 a	0.8 j	8.4 h-j	83.1 a-c	0.7 de	3.8 b
N19006	6.2 bc	4.8 a-c	1.3 b-d	16.3 c-h	74.3 c-e	2.5 bc	2.1 b-d
N19009	6.1 b-d	4.8 a-c	1.3 b-d	12.8 d-j	78.2 a-e	1.1 c-e	3.0 b-d
N19012	6.3 ab	4.9 ab	1.4 a-c	15.7 c-i	75.0 b-e	1.0 c-e	3.4 b-d
N19013	6.5 a	4.8 a-c	1.7 a	17.8 c-f	73.9 c-f	2.4 b-d	1.4 d
N19019	6.3 ab	4.8 a-d	1.5 ab	19.2 b-f	72.9 c-f	0.7 c-e	2.5 b-d
N19021	6.0 c-h	4.9 ab	1.1 c-h	11.9 e-j	80.9 a-c	0.8 c-e	3.0 b-d
N19024	6.1 b-e	4.8 a-c	1.3 b-e	10.0 f-j	82.1 a-c	1.7 c-e	2.5 b-d
N19026	6.3 b-e	4.9 ab	1.4 a-c	6.2 ij	79.2 a-e	4.1 ab	3.1 b-d
N19028	6.0 c-f	4.8 a-e	1.3 b-d	10.7 e-j	80.5 a-d	1.1 c-e	2.6 b-d
N19029	6.2 ab	4.8 a-c	1.3 b-d	35.5 a	59.1 g	0.4 e	1.1 d
N19030	5.8 e-j	4.8 a-e	1.1 d-i	17.8 c-g	74.3 c-f	1.5 c-e	2.2 b-d
N19033	5.9 d-i	4.7 b-e	1.2 c-f	13.7 c-j	77.8 a-e	0.4 e	3.2 b-d
N19034	6.0 c-g	4.8 a-d	1.2 b-f	10.8 e-j	77.1 a-e	1.2 c-e	1.9 b-d
13x101-2-11-2-1-B	5.8 f-j	4.7 b-e	1.1 c-g	6.9 ij	77.2 a-e	4.6 a	8.3 a
13x101-4-5-2-1-B	5.8 f-j	4.7 b-e	1.1 c-h	15.2 c-i	78.1 a-e	0.8 c-e	2.1 b-d
13x101-4-9-1-1-B	5.7 h-l	4.6 c-e	1.1 c-h	10.1 f-j	76.8 a-e	5.4 a	3.8 b
13x101-5-7-2-1-B	5.9 d-j	4.8 a-e	1.1 c-i	10.2 e-j	83.6 a-c	2.0 b-e	1.0 d
<b>Mean</b>	<b>5.9</b>	<b>4.8</b>	<b>1.1</b>	<b>13.5</b>	<b>78.0</b>	<b>1.5</b>	<b>2.7</b>
<b>LSD<sup>1</sup></b>	<b>0.2</b>	<b>0.2</b>	<b>0.3</b>	<b>8.2</b>	<b>8.3</b>	<b>1.8</b>	<b>2.3</b>

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



## Blanching Results

**Table 8. Laboratory sample blanching of Extra-Large Kernels (ELK). Averages from Tidewater AREC (Suffolk, VA) and Martin County, NC, 2023.**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.7 h-k	4.7 c-h	0.9 h-j	22.2 c-e	71.4 d-i	0.0 j	1.7 e-g
Emery	5.8 f-j	4.7 f-h	1.1 d-h	23.7 b-d	69.9 f-i	0.1 ij	1.8 e-g
NC-20	5.6 jk	4.7 e-h	0.9 h-j	14.1 g-m	77.9 a-f	0.7 h-j	3.4 b-e
Sullivan	5.7 h-k	4.7 e-h	1.0 h-j	20.8 c-f	73.3 d-h	0.3 h-j	1.4 fg
Walton	5.6 i-k	4.7 c-h	0.9 h-j	30.3 ab	63.3 ij	0.2 ij	2.6 c-g
N17045	5.7 h-k	4.6 gh	1.0 g-i	15.6 e-j	78.4 a-e	0.5 h-j	1.4 fg
N17047	5.6 i-k	4.8 b-g	0.9 ij	18.8 d-h	76.2 b-g	0.2 ij	1.0 g
N18010	5.6 i-k	4.7 f-h	1.0 h-j	21.7 c-e	72.1 d-h	0.2 ij	1.8 e-g
N18012	5.6 k	4.7 e-h	0.9 h-j	15.3 e-l	78.1 a-f	0.1 ij	2.0 c-g
N18026	5.6 k	4.7 c-g	0.9 ij	10.2 j-o	82.4 ab	0.8 h-j	2.6 c-g
N18029	5.6 k	4.8 a-f	0.8 j	9.9 k-o	84.1 ab	0.6 h-j	1.4 fg
N18033	5.6 k	4.6 h	1.0 h-j	8.6 l-o	83.1 ab	0.4 h-j	3.9 bc
N18039	5.7 g-k	4.7 c-h	1.0 h-j	10.9 i-o	82.1 a-c	2.0 d-g	1.7 e-g
N18044	5.7 h-k	4.7 e-h	1.0 h-j	6.2 o	85.0 a	3.0 cd	2.1 c-g
N18049	5.8 g-k	4.7 c-h	1.0 g-i	8.5 l-o	83.7 ab	0.7 h-j	3.1 b-f
N18055	5.7 g-k	4.8 a-g	0.9 h-j	6.7 m-o	82.7 ab	4.1 bc	2.8 b-g
N19003	5.7 g-k	4.9 a	0.8 j	8.1 m-o	83.9 ab	0.4 h-j	3.9 bc
N19006	6.1 b-d	4.9 ab	1.2 c-g	16.5 e-j	68.9 g-i	1.5 e-h	1.3 fg
N19009	6.1 cd	4.8 a-g	1.3 b-e	12.4 h-o	78.3 a-e	1.5 e-i	3.1 b-f
N19012	6.3 ab	4.8 a-f	1.5 ab	21.9 c-e	70.2 e-i	0.8 f-j	2.0 c-g
N19013	6.4 a	4.8 a-f	1.6 a	22.0 c-e	69.0 g-i	2.1 d-f	2.1 c-g
N19019	6.3 ab	4.9 a-c	1.4 bc	19.5 d-g	73.3 d-h	0.4 h-j	2.2 c-g
N19021	6.1 bc	4.8 a-e	1.3 b-e	13.4 g-m	77.5 a-f	1.4 f-i	3.8 b-d
N19024	6.1 cd	4.8 a-e	1.3 c-f	10.1 k-o	83.1 ab	1.2 f-j	2.0 e-g
N19026	6.1 bc	4.9 a-c	1.3 b-e	10.2 i-o	79.9 a-d	2.2 d-f	2.1 c-g
N19028	6.0 c-e	4.7 d-h	1.3 b-e	13.4 g-m	79.0 a-d	1.1 f-j	2.0 d-g
N19029	6.1 b-d	4.8 a-d	1.3 b-e	36.7 a	57.3 j	0.5 h-j	1.2 g
N19030	5.9 e-g	4.8 a-f	1.1 e-h	27.3 bc	65.7 h-j	0.9 f-j	1.8 e-g
N19033	6.0 c-e	4.7 f-h	1.3 b-d	14.5 f-l	77.2 a-f	0.3 h-j	3.1 b-f
N19034	5.9 d-f	4.7 f-h	1.3 b-e	11.6 i-o	78.5 a-e	0.8 h-j	2.6 c-g
13x101-2-11-2-1-B	5.9 e-h	4.7 c-h	1.1 e-h	12.6 g-n	67.1 hi	4.6 ab	12.2 a
13x101-4-5-2-1-B	5.8 f-i	4.7 c-h	1.1 f-i	16.8 e-i	73.0 d-h	2.7 de	3.5 b-e
13x101-4-9-1-1-B	5.8 g-k	4.7 d-h	1.0 g-i	11.5 i-o	77.1 a-f	4.2 bc	3.8 b-d
13x101-5-7-2-1-B	5.9 e-h	4.7 c-h	1.1 d-h	12.5 g-o	73.6 c-h	5.8 a	4.6 b
<b>Mean</b>	<b>5.9</b>	<b>4.7</b>	<b>1.1</b>	<b>15.7</b>	<b>75.8</b>	<b>1.4</b>	<b>2.7</b>
<b>LSD<sup>1</sup></b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>6.0</b>	<b>8.1</b>	<b>1.3</b>	<b>1.9</b>

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

## Blanching Results

**Table 9. Laboratory sample blanching of Extra-Large Kernels (ELK). Averages from Tidewater AREC (Suffolk, VA) and Martin County, NC. Two-year averages (2022- 2023).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.6 b	4.7 a-c	0.9 a	12.0 a-c	81.8 ab	0.0 d	3.1 d
Emery	5.6 ab	4.7 a-c	0.9 a	12.8 ab	81.1 a-c	0.1 d	3.1 d
NC-20	5.6 b	4.7 a-c	0.9 a	9.7 b-e	83.4 ab	0.4 d	4.7 a-d
Sullivan	5.6 ab	4.7 a-c	0.9 a	12.1 a-c	81.5 ab	0.2 d	3.2 cd
Walton	5.6 b	4.7 a-c	0.9 a	17.1 a	75.6 c	0.2 d	4.3 a-d
N17045	5.6 ab	4.7 bc	0.9 a	9.6 b-e	83.4 ab	0.3 d	3.9 a-d
N17047	5.6 ab	4.8 ab	0.8 a	11.2 b-d	81.8 ab	0.2 d	4.1 a-d
N18010	5.6 ab	4.7 a-c	0.9 a	12.7 ab	79.7 bc	0.2 d	4.5 a-d
N18012	5.6 b	4.7 a-c	0.8 a	9.0 b-e	83.1 ab	0.2 d	4.8 a-d
N18026	5.6 b	4.7 a-c	0.8 a	7.0 c-e	85.7 a	0.4 d	4.0 a-d
N18029	5.6 b	4.8 a	0.8 a	6.8 c-e	85.8 a	0.4 cd	4.1 a-d
N18033	5.6 b	4.7 c	0.9 a	6.0 de	85.7 a	0.3 d	5.1 ab
N18039	5.7 ab	4.8 ab	0.9 a	7.1 b-e	85.7 a	1.1 bc	3.6 b-d
N18044	5.6 ab	4.7 a-c	0.9 a	5.1 e	86.5 a	1.6 ab	4.2 a-d
N18049	5.7 a	4.8 a-c	0.9 a	6.1 de	85.1 ab	0.5 cd	5.5 a
N18055	5.7 ab	4.8 ab	0.9 a	5.3 e	85.0 ab	2.1 a	4.9 a-c
<b>Mean</b>	<b>5.6</b>	<b>4.7</b>	<b>0.9</b>	<b>9.4</b>	<b>83.2</b>	<b>0.5</b>	<b>4.2</b>
<b>LSD<sup>1</sup></b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>5.3</b>	<b>5.0</b>	<b>0.7</b>	<b>1.8</b>

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

## Blanching Results

**Table 10. Laboratory sample blanching of Extra-Large Kernels (ELK). Averages from Tidewater AREC (Suffolk, VA) and Martin County, NC. Three-year averages (2021- 2023).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.6 a	4.7 b	0.9 a	8.9 ab	85.0 ab	0.0 c	3.5 b
Emery	5.6 a	4.7 ab	0.9 a	9.4 ab	84.5 ab	0.1 bc	3.5 b
NC-20	5.6 a	4.7 ab	0.8 a	6.9 b	85.2 a	0.3 a	5.1 a
Sullivan	5.6 a	4.7 ab	0.9 a	9.2 ab	84.3 ab	0.2 a-c	3.8 ab
Walton	5.6 a	4.7 ab	0.9 a	12.8 a	79.8 b	0.2 ab	4.9 a
N17045	5.6 a	4.7 ab	0.9 a	7.5 ab	85.1 a	0.2 ab	4.7 ab
N17047	5.6 a	4.8 a	0.8 a	8.7 ab	83.6 ab	0.2 ab	5.1 a
<b>Mean</b>	<b>5.6</b>	<b>4.7</b>	<b>0.9</b>	<b>9.1</b>	<b>83.9</b>	<b>0.2</b>	<b>4.4</b>
<b>LSD<sup>1</sup></b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>5.4</b>	<b>5.0</b>	<b>0.2</b>	<b>1.4</b>

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

## Blanching Results

**Table 11. Laboratory sample blanching of Medium Kernels from Tidewater AREC (Suffolk, VA), Dig 1, 2023 (6 October).**

Variety	% H <sub>2</sub> O before roasting	% H <sub>2</sub> O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.8 ab	4.9 ab	0.9 a-d	19.9 c-h	68.6 a-h	0.5 hi	2.6 f-h
Emery	6.0 ab	5.0 a	1.0 a-d	19.6 c-h	71.4 a-f	0.8 g-i	3.0 e-h
NC-20	5.6 ab	4.8 a-e	0.9 a-d	21.6 b-f	69.2 a-h	0.0 i	3.7 d-h
Sullivan	5.8 ab	4.8 a-d	1.0 a-d	20.9 c-f	67.9 b-h	3.7 e-i	2.6 e-h
Walton	5.7 ab	4.8 a-e	1.0 a-d	27.6 a-c	62.4 g-k	0.6 g-i	4.7 c-g
N17045	5.8 ab	4.8 a-e	1.0 a-d	17.2 d-i	72.0 a-e	2.6 e-i	2.8 e-h
N17047	5.6 ab	4.8 a-e	0.8 b-d	18.9 d-h	72.3 a-d	0.8 g-i	3.2 e-h
N18010	5.7 ab	4.7 b-e	1.0 a-d	20.2 c-g	67.8 b-h	2.0 e-i	5.6 b-f
N18012	5.6 ab	4.7 b-e	0.9 a-d	14.0 f-j	70.9 a-g	4.4 d-g	6.0 b-e
N18026	5.9 ab	4.7 b-e	1.2 ab	20.9 c-f	67.4 b-h	2.6 e-i	2.7 e-h
N18029	5.8 ab	4.8 a-d	1.0 a-d	21.6 b-f	69.6 a-g	2.1 e-i	1.2 h
N18033	5.8 ab	4.9 a-c	1.0 a-d	16.8 d-i	74.8 ab	1.9 e-i	1.9 gh
N18039	5.7 ab	4.8 a-d	0.9 a-d	18.8 d-h	69.1 a-h	3.5 e-i	3.4 e-h
N18044	5.9 ab	4.8 a-e	1.2 a-c	20.1 c-g	63.4 e-j	7.9 b-d	2.7 e-h
N18049	6.0 ab	5.0 ab	1.0 a-d	13.4 f-j	73.9 a-c	4.0 d-h	4.0 c-h
N18055	5.9 ab	4.9 a-c	1.1 a-d	15.0 f-j	60.4 h-k	12.2 a	7.0 b-d
N19003	5.9 ab	5.0 ab	1.0 a-d	19.4 c-h	68.6 a-h	2.4 e-i	3.8 d-h
N19006	5.9 ab	4.6 c-e	1.3 a	34.7 a	56.6 i-k	1.6 f-i	2.1 gh
N19009	6.0 a	5.0 ab	1.1 a-d	11.4 h-j	71.8 a-e	5.7 c-e	5.8 b-f
N19012	5.9 ab	4.9 ab	1.0 a-d	12.2 g-j	73.1 a-c	3.2 e-i	5.8 b-f
N19013	5.8 ab	4.7 b-e	0.6 d	21.8 b-f	55.2 jk	9.6 ab	7.4 bc
N19019	5.8 ab	4.9 a-c	1.0 a-d	14.8 f-j	69.6 a-g	1.8 e-i	8.5 b
N19021	5.6 ab	4.8 a-e	0.9 a-d	13.4 f-j	71.9 a-e	5.4 c-f	3.9 d-h
N19024	5.8 ab	4.8 a-d	1.0 a-d	6.9 j	77.3 a	7.9 b-d	2.8 e-h
N19026	5.6 ab	4.8 a-d	0.8 b-d	8.9 ij	72.2 a-d	7.7 b-d	3.6 d-h
N19028	5.8 ab	4.9 a-c	0.9 a-d	14.1 f-j	74.3 ab	3.6 e-i	1.7 gh
N19029	5.6 ab	4.8 a-e	0.8 b-d	34.7 a	54.3 k	2.1 e-i	2.7 e-h
N19030	5.6 ab	4.9 a-c	0.7 cd	23.9 b-e	63.5 d-j	4.2 d-h	2.5 f-h
N19033	5.5 b	4.5 e	1.0 a-d	21.8 b-f	70.0 a-g	0.4 hi	2.8 e-h
N19034	5.6 ab	4.6 c-e	1.0 a-d	24.6 b-d	65.2 c-i	0.9 g-i	3.9 d-h
13x101-2-11-2-1-B	5.9 ab	4.9 ab	1.0 a-d	15.8 e-i	57.9 i-k	8.7 a-c	12.8 a
13x101-4-5-2-1-B	5.6 ab	4.6 de	1.1 a-d	30.1 ab	57.2 i-k	4.5 d-g	2.7 e-h
13x101-4-9-1-1-B	5.6 ab	4.8 a-e	0.8 b-d	24.3 b-e	62.9 f-k	3.8 e-i	4.5 c-h
13x101-5-7-2-1-B	5.9 ab	4.8 a-d	1.1 a-c	24.5 b-d	56.9 i-k	8.5 a-c	3.7 d-h
<b>Mean</b>	<b>5.8</b>	<b>4.8</b>	<b>1.0</b>	<b>19.5</b>	<b>67.0</b>	<b>3.9</b>	<b>4.1</b>
<b>LSD<sup>1</sup></b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>8.7</b>	<b>8.8</b>	<b>3.9</b>	<b>3.4</b>

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

## Blanching Results

**Table 12. Laboratory sample blanching of Medium Kernels from Tidewater AREC (Suffolk, VA), Dig 2, 2023 (16 October).**

Variety	% H <sub>2</sub> O before roasting	% H <sub>2</sub> O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.8 b-f	4.8 a-d	1.1 b-f	23.2 a-e	66.9 a-e	2.6 e-g	2.9 c-e
Emery	5.9 b-e	4.9 a-d	1.0 c-f	19.7 a-f	71.7 a-c	1.7 fg	2.4 c-e
NC-20	5.7 d-f	4.8 a-d	0.9 c-f	18.4 a-f	66.8 a-e	1.4 fg	8.6 ab
Sullivan	6.4 a	4.9 a-c	1.5 a	21.4 a-e	66.4 a-e	4.0 c-g	3.5 b-e
Walton	5.8 b-f	4.9 a-c	0.9 c-f	28.8 ab	61.9 a-e	0.5 g	4.3 b-e
N17045	5.9 b-e	4.7 c-e	1.2 a-d	19.5 a-f	68.3 a-e	4.3 c-g	2.6 c-e
N17047	5.8 b-f	4.8 a-d	1.1 b-f	17.8 b-f	72.8 a	0.8 g	4.1 b-e
N18010	5.6 ef	4.7 b-d	0.8 d-f	24.6 a-e	64.2 a-e	1.1 g	5.0 a-e
N18012	5.6 ef	4.6 de	1.0 c-f	21.7 a-e	66.4 a-e	1.7 fg	5.7 a-e
N18026	5.7 d-f	4.8 a-d	0.9 c-f	18.6 a-f	71.4 a-c	1.1 g	4.8 a-e
N18029	6.0 a-e	5.0 ab	1.0 c-f	19.6 a-f	67.6 a-e	5.0 c-g	1.8 de
N18033	6.2 a-c	4.7 b-e	1.5 ab	18.9 a-f	72.0 ab	2.2 e-g	1.3 de
N18039	5.6 ef	4.8 a-d	0.8 ef	23.3 a-e	67.0 a-e	3.2 d-g	1.1 e
N18044	6.2 ab	5.0 ab	1.3 a-c	16.0 ef	64.6 a-e	8.7 a-c	4.9 a-e
N18049	6.1 a-d	5.0 ab	1.1 a-f	18.6 a-f	65.6 a-e	5.3 c-g	4.8 a-e
N18055	6.2 ab	5.0 a	1.2 a-d	14.9 ef	63.7 a-e	11.7 ab	4.2 b-e
N19003	5.7 c-f	4.8 a-d	0.9 c-f	19.3 a-f	66.9 a-e	2.5 e-g	6.2 a-d
N19006	5.8 b-f	5.0 a	0.8 d-f	29.1 a	58.9 c-e	3.4 c-g	4.0 b-e
N19009	5.7 d-f	4.7 b-e	1.0 c-f	15.9 ef	63.7 a-e	8.2 b-d	6.9 a-c
N19012	6.0 a-e	4.9 a-d	1.1 a-f	19.4 a-f	66.0 a-e	6.1 b-g	3.0 b-e
N19013	5.9 b-e	4.9 a-c	1.0 c-f	16.4 d-f	59.9 b-e	13.9 a	5.4 a-e
N19019	5.8 b-f	4.7 c-e	1.2 a-e	22.0 a-e	65.2 a-e	2.2 e-g	5.5 a-e
N19021	5.6 ef	4.8 a-d	0.8 d-f	17.6 c-f	68.3 a-e	3.3 c-g	5.4 a-e
N19024	5.8 b-f	4.8 a-d	1.0 c-f	14.5 ef	69.7 a-d	6.8 b-f	3.8 b-e
N19026	5.9 b-e	5.0 ab	0.9 c-f	9.6 f	70.6 a-c	12.1 ab	2.8 c-e
N19028	5.7 c-f	4.9 a-d	0.9 c-f	27.8 a-c	56.2 e	4.8 c-g	3.4 b-e
N19029	5.7 d-f	4.9 a-c	0.8 ef	25.5 a-e	65.1 a-e	3.4 c-g	1.6 de
N19030	5.7 d-f	4.8 a-d	0.9 c-f	27.4 a-d	60.6 a-e	4.0 c-g	3.4 b-e
N19033	5.8 b-f	4.6 de	1.2 a-e	22.3 a-e	67.3 a-e	0.5 g	4.0 b-e
N19034	5.4 f	4.5 e	0.9 c-f	25.1 a-e	61.9 a-e	1.7 fg	6.2 a-d
13x101-2-11-2-1-B	5.5 ef	4.8 a-d	0.8 ef	14.7 ef	62.8 a-e	8.5 a-d	9.7 a
13x101-4-5-2-1-B	5.7 d-f	5.0 ab	0.7 f	22.3 a-e	61.0 a-e	7.5 b-e	4.0 b-e
13x101-4-9-1-1-B	5.8 b-f	4.9 a-c	0.9 c-f	21.7 a-e	63.3 a-e	6.0 c-g	3.9 b-e
13x101-5-7-2-1-B	5.8 b-f	4.8 a-d	1.0 c-f	17.2 c-f	57.1 de	12.7 ab	8.9 ab
<b>Mean</b>	<b>5.8</b>	<b>4.8</b>	<b>1.0</b>	<b>20.4</b>	<b>65.3</b>	<b>4.8</b>	<b>4.4</b>
<b>LSD<sup>1</sup></b>	<b>0.5</b>	<b>0.3</b>	<b>0.4</b>	<b>11.3</b>	<b>13.1</b>	<b>5.5</b>	<b>5.1</b>

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

## Blanching Results

**Table 13. Laboratory sample blanching of Medium Kernels. Averages from both digging dates from Tidewater AREC (Suffolk, VA), 2023.**

Variety	% H <sub>2</sub> O before roasting	% H <sub>2</sub> O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.8 a-f	4.8 a-d	1.0 a-d	21.5 c-j	67.8 a-g	1.5 i-m	2.7 g-i
Emery	5.9 a-e	4.9 ab	1.0 a-d	19.7 d-k	71.5 a-c	1.2 j-m	2.7 g-i
NC-20	5.6 ef	4.8 a-e	0.9 cd	20.0 d-k	68.0 a-g	0.7 lm	6.1 b-e
Sullivan	6.1 a	4.9 a-d	1.2 a	21.1 c-j	67.1 a-h	3.8 g-k	3.0 f-i
Walton	5.8 a-f	4.8 a-d	0.9 a-d	28.2 a-c	62.1 e-k	0.5 lm	4.5 b-i
N17045	5.8 a-f	4.7 c-f	1.1 a-c	18.3 e-k	70.1 a-d	3.4 g-m	2.7 g-i
N17047	5.7 c-f	4.8 a-e	0.9 a-d	18.3 e-k	72.5 ab	0.8 k-m	3.7 c-i
N18010	5.6 ef	4.7 c-f	0.9 b-d	22.4 c-h	65.9 b-i	1.4 j-m	5.4 b-g
N18012	5.6 ef	4.7 d-f	0.9 a-d	17.8 f-l	68.6 a-f	3.0 g-m	5.8 b-f
N18026	5.8 a-f	4.7 b-f	1.1 a-d	19.7 d-k	69.4 a-f	1.9 h-m	3.7 c-i
N18029	5.9 a-e	4.9 a-c	1.0 a-d	20.6 d-k	68.6 a-f	3.5 g-l	1.5 i
N18033	6.0 a-d	4.8 a-d	1.2 ab	17.8 f-l	73.4 a	2.1 h-m	1.6 i
N18039	5.6 ef	4.8 a-d	0.8 cd	21.0 c-k	68.0 a-g	3.3 g-m	2.2 hi
N18044	6.1 ab	4.9 a-d	1.2 ab	18.1 f-l	64.0 c-k	8.3 b-d	3.8 c-i
N18049	6.0 a-c	5.0 a	1.1 a-d	16.0 g-m	69.7 a-e	4.6 e-h	4.4 b-i
N18055	6.1 ab	4.9 ab	1.1 a-c	15.0 i-m	62.0 f-k	11.9 a	5.6 b-g
N19003	5.8 a-f	4.9 a-c	0.9 a-d	19.4 d-k	67.7 a-g	2.4 h-m	5.0 b-h
N19006	5.9 a-e	4.8 a-d	1.1 a-d	31.9 a	57.7 jk	2.5 h-m	3.0 f-i
N19009	5.8 a-e	4.8 a-d	1.0 a-d	13.6 k-m	67.8 a-g	6.9 c-f	6.3 b-d
N19012	5.9 a-e	4.9 a-c	1.0 a-d	14.0 j-m	71.1 a-d	4.1 e-k	5.0 b-h
N19013	5.8 a-e	4.8 a-d	0.8 d	19.1 d-k	57.5 k	11.7 a	6.4 bc
N19019	5.8 a-f	4.8 a-e	1.1 a-d	18.4 e-k	67.4 a-g	2.0 h-m	7.0 b
N19021	5.6 ef	4.8 a-e	0.8 cd	15.5 h-m	70.1 a-d	4.4 e-i	4.6 b-h
N19024	5.8 a-f	4.8 a-d	1.0 a-d	10.7 lm	73.5 a	7.3 c-e	3.3 d-i
N19026	5.7 b-f	4.9 a-c	0.9 cd	9.2 m	71.4 a-c	9.9 a-c	3.2 e-i
N19028	5.7 b-f	4.9 a-d	0.9 cd	20.9 c-k	65.2 b-j	4.2 e-j	2.5 g-i
N19029	5.6 ef	4.8 a-d	0.8 d	30.1 ab	59.7 h-k	2.7 h-m	2.1 hi
N19030	5.6 ef	4.8 a-d	0.8 d	25.6 a-e	62.1 f-k	4.1 f-k	2.9 f-i
N19033	5.6 ef	4.6 ef	1.1 a-d	22.0 c-i	68.6 a-f	0.4 m	3.4 c-i
N19034	5.5 f	4.5 f	1.0 a-d	24.8 a-f	63.5 d-k	1.3 j-m	5.0 b-h
13x101-2-11-2-1-B	5.7 c-f	4.8 a-d	0.9 cd	15.3 i-m	60.4 g-k	8.6 b-d	11.2 a
13x101-4-5-2-1-B	5.6 ef	4.8 a-e	0.9 cd	26.2 a-d	59.1 i-k	6.0 d-g	3.4 c-i
13x101-4-9-1-1-B	5.7 d-f	4.8 a-d	0.8 cd	23.0 b-g	63.1 d-k	4.9 e-h	4.2 b-i
13x101-5-7-2-1-B	5.8 a-e	4.8 a-d	1.1 a-d	20.8 c-k	57.0 k	10.6 ab	6.3 b-d
<b>Mean</b>	<b>5.8</b>	<b>4.8</b>	<b>1.0</b>	<b>19.9</b>	<b>66.2</b>	<b>4.3</b>	<b>4.2</b>
<b>LSD<sup>1</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>0.3</b>	<b>7.4</b>	<b>7.8</b>	<b>3.1</b>	<b>3.0</b>

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

## Blanching Results

**Table 14. Laboratory sample blanching of Medium Kernels from Martin County, NC, Dig 1, 2023 (13 October).**

Variety	% H <sub>2</sub> O before roasting	% H <sub>2</sub> O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.7 b	4.7 c	1.0 b-d	17.6 d-f	73.6 a-d	0.4 e	3.1 a-c
Emery	5.6 b	4.8 bc	0.8 b-d	14.0 d-f	77.8 a	3.2 b-e	1.4 c
NC-20	5.6 b	4.6 c	1.0 a-d	19.4 b-f	68.2 a-f	0.7 de	5.6 a-c
Sullivan	6.9 a	5.2 a	1.8 a	16.5 d-f	73.1 a-d	0.4 e	4.8 a-c
Walton	5.8 b	5.0 a-c	0.9 b-d	30.4 a-c	62.0 ef	1.6 de	1.3 c
N17045	5.6 b	4.9 a-c	0.8 b-d	12.4 d-f	76.8 ab	5.0 b-d	2.5 bc
N17047	5.5 b	4.8 a-c	0.7 cd	19.5 b-f	70.4 a-e	1.6 c-e	5.3 a-c
N18010	5.9 b	4.8 bc	1.1 a-d	17.5 d-f	70.5 a-e	1.5 de	4.8 a-c
N18012	6.3 b	4.8 a-c	1.5 ab	30.7 ab	57.0 fg	2.1 c-e	3.4 a-c
N18026	5.6 b	4.7 c	1.0 b-d	15.3 d-f	70.9 a-e	2.3 c-e	6.8 a
N18029	6.0 b	5.1 ab	0.9 b-d	15.2 d-f	74.4 a-d	1.5 de	2.8 a-c
N18033	6.1 b	4.8 a-c	1.3 a-c	15.7 d-f	73.5 a-d	1.5 de	3.9 a-c
N18039	5.9 b	5.1 a-c	0.8 b-d	17.7 d-f	65.7 c-f	4.0 b-e	6.3 ab
N18044	5.7 b	4.9 a-c	0.8 b-d	9.8 ef	74.6 a-d	3.5 b-e	6.8 a
N18049	6.1 b	5.1 a-c	1.0 b-d	12.0 d-f	72.6 a-d	4.6 b-e	6.4 ab
N18055	5.8 b	5.1 a-c	0.7 b-d	14.5 d-f	70.4 a-e	3.8 b-e	4.9 a-c
N19003	5.8 b	5.0 a-c	0.8 b-d	11.0 ef	76.2 a-c	0.9 de	7.6 a
N19006	5.4 b	4.8 bc	0.7 cd	18.9 b-f	67.1 b-f	3.5 b-e	4.6 a-c
N19009	5.8 b	4.8 bc	1.1 a-d	14.4 d-f	68.6 a-e	6.8 a-c	6.6 ab
N19012	5.6 b	4.7 c	1.0 b-d	14.9 d-f	71.1 a-e	4.5 b-e	3.9 a-c
N19013	5.4 b	4.7 bc	0.7 b-d	18.5 d-f	64.6 d-f	5.9 bc	4.9 a-c
N19019	5.8 b	4.8 bc	1.1 a-d	15.1 d-f	70.7 a-e	3.8 b-e	5.1 a-c
N19021	5.5 b	4.8 bc	0.8 b-d	13.9 d-f	71.2 a-e	4.2 b-e	6.6 ab
N19024	5.5 b	4.9 a-c	0.7 cd	7.7 f	75.5 a-c	7.6 ab	5.1 a-c
N19026	5.5 b	5.0 a-c	0.6 d	7.1 f	76.4 a-c	7.0 ab	5.1 a-c
N19028	5.4 b	4.7 bc	0.7 b-d	13.9 d-f	63.5 d-f	11.4 a	7.7 a
N19029	5.6 b	4.8 bc	0.8 b-d	23.3 b-e	64.8 c-f	3.0 b-e	5.2 a-c
N19030	5.5 b	4.8 a-c	0.7 b-d	39.7 a	49.8 g	2.3 c-e	3.6 a-c
N19033	5.5 b	4.7 c	0.9 b-d	16.7 d-f	73.8 a-d	0.8 de	2.9 a-c
N19034	5.4 b	4.7 bc	0.7 b-d	23.8 b-d	67.4 b-f	1.0 de	3.8 a-c
13x101-2-11-2-1-B	5.7 b	4.8 a-c	0.9 b-d	17.8 d-f	65.5 c-f	7.2 ab	4.8 a-c
13x101-4-5-2-1-B	5.7 b	4.9 a-c	0.8 b-d	22.5 b-e	68.7 a-e	1.5 de	2.6 bc
13x101-4-9-1-1-B	5.6 b	4.9 a-c	0.7 cd	18.7 c-f	66.2 c-f	7.3 ab	3.6 a-c
13x101-5-7-2-1-B	5.6 b	4.8 a-c	0.8 b-d	15.3 d-f	78.3 a	2.0 c-e	2.0 c
<b>Mean</b>	<b>5.7</b>	<b>4.9</b>	<b>0.9</b>	<b>17.4</b>	<b>69.7</b>	<b>3.5</b>	<b>4.6</b>
<b>LSD<sup>1</sup></b>	<b>0.8</b>	<b>0.4</b>	<b>0.7</b>	<b>11.8</b>	<b>9.8</b>	<b>4.3</b>	<b>4.1</b>

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

## Blanching Results

**Table 15. Laboratory sample blanching of Medium Kernels from Martin County, NC, Dig 2, 2023(19 October).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	6.0 ab	4.8 c-e	1.2 a-d	8.7 d-f	83.7 a	0.3 fg	2.9 c-e
Emery	6.1 ab	5.0 a-c	1.1 a-d	20.5 b-f	68.7 a-d	3.0 b-f	2.7 c-e
NC-20	5.7 b	4.8 c-e	1.0 a-d	15.4 c-f	75.1 a-c	0.4 fg	5.2 bc
Sullivan	6.0 ab	4.8 c-e	1.2 a-d	17.6 b-f	74.1 a-c	0.1 g	3.8 c-e
Walton	5.7 b	4.9 c-e	0.8 a-d	26.8 a-c	64.7 b-d	0.7 fg	3.0 c-e
N17045	6.0 ab	5.0 a-d	1.0 a-d	3.7 f	82.9 ab	7.8 a	1.8 de
N17047	6.2 ab	4.9 c-e	1.3 ab	21.3 b-e	71.8 a-c	0.5 fg	1.5 e
N18010	5.8 b	4.9 b-e	0.9 a-d	10.6 d-f	79.9 ab	0.5 fg	3.6 c-e
N18012	5.5 b	4.8 c-e	0.7 cd	18.7 b-f	76.0 a-c	0.4 fg	1.9 de
N18026	5.9 ab	4.9 b-e	1.0 a-d	15.7 c-f	74.3 a-c	1.4 d-g	2.3 c-e
N18029	6.1 ab	4.9 b-e	1.2 a-c	19.2 b-f	70.7 a-c	1.4 d-g	1.4 e
N18033	5.8 b	4.9 c-e	0.9 a-d	11.1 d-f	81.1 ab	0.7 fg	2.3 c-e
N18039	6.6 a	5.2 ab	1.5 a	12.2 d-f	75.0 a-c	3.9 b-d	4.4 b-d
N18044	5.7 b	4.9 b-e	0.8 b-d	12.3 d-f	76.5 ab	3.6 b-f	2.1 c-e
N18049	5.7 b	4.9 b-e	0.8 b-d	22.8 b-d	64.9 b-d	2.8 b-g	2.3 c-e
N18055	5.8 b	5.3 a	0.5 d	10.1 d-f	78.6 ab	2.2 c-g	3.1 c-e
N19003	6.0 ab	5.0 b-d	1.1 a-d	15.4 c-f	75.7 a-c	1.4 d-g	2.7 c-e
N19006	5.9 b	4.9 c-e	1.0 a-d	15.2 c-f	77.5 ab	2.0 c-g	1.6 e
N19009	5.5 b	4.7 de	0.8 a-d	9.2 d-f	78.8 ab	3.9 b-d	3.2 c-e
N19012	5.7 b	4.9 b-e	0.8 b-d	17.4 b-f	73.2 a-c	2.6 c-g	3.9 c-e
N19013	6.2 ab	4.8 c-e	1.4 a	10.4 d-f	71.7 a-c	7.7 a	6.7 ab
N19019	5.8 b	4.7 de	1.1 a-d	7.9 ef	80.7 ab	1.6 c-g	4.7 b-d
N19021	5.6 b	4.7 de	0.9 a-d	13.4 c-f	75.9 a-c	1.2 e-g	3.8 c-e
N19024	5.6 b	4.9 c-e	0.8 b-d	9.3 d-f	77.4 ab	4.6 a-c	3.4 c-e
N19026	5.6 b	4.8 c-e	0.8 a-d	9.2 d-f	81.9 ab	3.4 b-f	1.3 e
N19028	5.7 b	4.8 c-e	0.9 a-d	12.7 d-f	75.6 a-c	3.8 b-e	2.7 c-e
N19029	5.6 b	4.8 c-e	0.8 a-d	20.1 b-f	73.8 a-c	1.4 c-g	2.0 c-e
N19030	5.5 b	4.8 c-e	0.7 cd	30.0 ab	61.3 cd	2.2 c-g	2.4 c-e
N19033	6.0 ab	4.8 c-e	1.2 a-d	17.1 b-f	75.5 a-c	0.5 fg	1.5 e
N19034	5.7 b	4.7 de	1.0 a-d	17.8 b-f	73.8 a-c	0.4 fg	2.6 c-e
13x101-2-11-2-1-B	5.7 b	4.7 de	1.0 a-d	14.2 c-f	66.8 a-d	5.5 ab	8.2 a
13x101-4-5-2-1-B	5.6 b	4.7 e	0.9 a-d	37.6 a	54.7 d	0.1 g	1.6 e
13x101-4-9-1-1-B	6.0 ab	4.8 c-e	1.2 a-c	20.5 b-f	70.5 a-c	1.6 c-g	1.5 e
13x101-5-7-2-1-B	6.0 ab	4.8 c-e	1.2 a-d	22.8 b-d	68.1 a-d	1.2 d-g	1.2 e
<b>Mean</b>	<b>5.8</b>	<b>4.9</b>	<b>1.0</b>	<b>16.1</b>	<b>73.9</b>	<b>2.2</b>	<b>2.9</b>
<b>LSD<sup>2</sup></b>	<b>0.7</b>	<b>0.3</b>	<b>0.6</b>	<b>13.9</b>	<b>15.1</b>	<b>2.7</b>	<b>2.7</b>

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



## Blanching Results

**Table 16. Laboratory sample blanching of Medium Kernels. Averages from both digging dates from Martin County, NC, 2023.**

Variety	% H <sub>2</sub> O before roasting	% H <sub>2</sub> O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.8 b-d	4.7 e	1.1 ab	15.2 d-i	76.5 a-c	0.3 jk	2.9 b-e
Emery	5.8 b-d	4.9 c-e	0.9 bc	17.3 d-h	73.3 a-c	3.1 d-j	2.0 de
NC-20	5.7 b-d	4.7 e	1.0 a-c	16.5 d-i	73.0 a-d	0.5 jk	5.4 a-c
Sullivan	6.4 a	5.0 b-d	1.5 a	17.0 d-i	73.6 a-c	0.2 k	4.3 a-e
Walton	5.7 b-d	4.9 b-e	0.8 bc	28.6 a-c	63.3 d-f	1.1 i-k	2.1 c-e
N17045	5.7 b-d	4.9 b-e	0.8 bc	10.2 g-i	78.3 ab	5.9 a-d	2.1 c-e
N17047	5.8 b-d	4.8 c-e	1.0 a-c	20.5 b-g	71.5 a-e	0.9 i-k	2.8 b-e
N18010	5.8 b-d	4.8 c-e	1.0 a-c	14.0 e-i	75.2 a-c	1.0 i-k	4.2 a-e
N18012	5.9 b-d	4.8 c-e	1.1 ab	24.7 b-d	66.5 c-e	1.2 i-k	2.6 c-e
N18026	5.8 b-d	4.8 de	1.0 a-c	15.5 d-i	72.6 a-d	1.8 g-k	4.5 a-d
N18029	6.0 a-c	5.0 bc	1.0 a-c	17.2 d-h	72.5 a-d	1.4 h-k	2.1 de
N18033	5.9 b-d	4.8 c-e	1.1 ab	13.4 e-i	77.3 ab	1.1 i-k	3.1 b-e
N18039	6.2 ab	5.1 ab	1.1 ab	14.9 e-i	70.3 a-e	4.0 b-h	5.3 a-c
N18044	5.7 b-d	4.9 b-e	0.8 bc	11.0 g-i	75.5 a-c	3.6 c-i	4.4 a-e
N18049	5.9 b-d	5.0 b-d	0.9 bc	17.4 d-h	68.7 a-e	3.7 b-i	4.3 a-e
N18055	5.8 b-d	5.2 a	0.5 c	11.8 e-i	75.7 a-c	2.7 e-k	3.7 a-e
N19003	5.9 b-d	5.0 b-d	0.9 bc	13.2 e-i	75.9 a-c	1.1 i-k	5.2 a-c
N19006	5.6 cd	4.8 c-e	0.8 bc	17.0 d-i	72.3 a-d	2.7 e-k	3.1 b-e
N19009	5.7 cd	4.7 e	0.9 bc	11.8 f-i	73.7 a-c	5.3 a-e	4.9 a-d
N19012	5.6 cd	4.8 de	0.9 bc	16.2 d-i	72.1 a-d	3.6 c-i	3.9 a-e
N19013	5.8 b-d	4.7 e	1.1 ab	14.5 e-i	68.1 b-e	6.8 a	5.8 ab
N19019	5.8 b-d	4.7 e	1.1 ab	11.5 g-i	75.7 a-c	2.7 e-k	4.9 a-d
N19021	5.6 cd	4.7 e	0.8 bc	13.6 e-i	73.5 a-c	2.7 e-k	5.2 a-c
N19024	5.6 cd	4.9 c-e	0.7 bc	8.5 hi	76.5 a-c	6.1 a-c	4.3 a-e
N19026	5.6 cd	4.9 c-e	0.7 bc	8.1 i	79.2 a	5.2 a-f	3.2 b-e
N19028	5.6 cd	4.8 de	0.8 bc	13.3 e-i	71.4 a-e	6.2 a-c	4.3 a-e
N19029	5.6 cd	4.8 de	0.8 bc	23.0 b-e	68.3 a-e	2.1 f-k	3.3 a-e
N19030	5.5 d	4.8 de	0.7 bc	34.8 a	55.6 f	2.3 f-k	3.0 b-e
N19033	5.7 b-d	4.7 e	1.0 a-c	16.9 d-i	74.7 a-c	0.7 jk	2.2 c-e
N19034	5.6 cd	4.7 e	0.9 bc	20.8 b-f	70.6 a-e	0.7 jk	3.2 b-e
13x101-2-11-2-1-B	5.7 b-d	4.8 e	1.0 bc	16.0 d-i	66.1 c-e	6.3 ab	6.5 a
13x101-4-5-2-1-B	5.6 cd	4.8 de	0.8 bc	30.1 ab	61.7 ef	0.8 jk	2.1 c-e
13x101-4-9-1-1-B	5.8 b-d	4.8 c-e	0.9 bc	19.6 c-g	68.3 a-e	4.4 a-g	2.5 c-e
13x101-5-7-2-1-B	5.8 b-d	4.8 c-e	1.0 bc	19.0 d-g	73.2 a-c	1.6 h-k	1.6 e
<b>Mean</b>	<b>5.8</b>	<b>4.8</b>	<b>0.9</b>	<b>16.9</b>	<b>71.8</b>	<b>2.8</b>	<b>3.7</b>
<b>LSD<sup>1</sup></b>	<b>0.5</b>	<b>0.2</b>	<b>0.5</b>	<b>9.5</b>	<b>10.2</b>	<b>2.5</b>	<b>3.0</b>

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

## Blanching Results

**Table 17. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk, VA) and Martin County, NC, 2023.**

Variety	% H <sub>2</sub> O before roasting	% H <sub>2</sub> O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.8 b-f	4.8 f-j	1.0 b-e	18.9 d-i	71.5 a-e	1.0 m-o	2.8 e-i
Emery	5.9 b-d	4.9 b-g	0.9 b-e	18.5 d-i	72.4 a-d	2.2 j-o	2.4 hi
NC-20	5.6 b-f	4.7 h-k	0.9 b-e	18.5 d-i	70.1 a-f	0.6 o	5.8 bc
Sullivan	6.3 a	4.9 a-f	1.3 a	19.1 d-h	70.3 a-e	2.0 j-o	3.7 c-i
Walton	5.7 b-f	4.9 b-i	0.9 b-e	28.4 ab	62.7 f-h	0.8 no	3.3 d-i
N17045	5.8 b-f	4.8 e-j	1.0 b-e	14.9 g-k	73.6 a-c	4.4 d-j	2.4 g-i
N17047	5.7 b-f	4.8 e-i	1.0 b-e	19.3 d-h	72.1 a-e	0.8 no	3.3 d-i
N18010	5.7 b-f	4.8 f-j	1.0 b-e	18.1 e-i	70.7 a-e	1.3 l-o	4.6 b-g
N18012	5.7 b-f	4.7 i-k	1.0 b-e	21.3 c-f	67.5 c-f	2.1 j-o	4.2 b-h
N18026	5.8 b-f	4.8 h-k	1.0 b-d	17.6 e-i	71.0 a-e	1.8 k-o	4.1 b-h
N18029	6.0 b	4.9 a-d	1.0 b-d	18.9 d-i	70.6 a-e	2.5 i-o	1.8 i
N18033	5.9 b	4.8 d-i	1.1 ab	15.6 f-j	75.3 a	1.6 l-o	2.3 hi
N18039	5.9 bc	5.0 a-c	1.0 b-e	18.0 e-i	69.2 a-f	3.6 f-l	3.8 c-i
N18044	5.9 b-d	4.9 b-h	1.0 b-e	14.5 g-k	69.7 a-f	5.9 b-g	4.1 b-h
N18049	5.9 bc	5.0 ab	1.0 b-e	16.7 f-i	69.2 a-f	4.2 e-k	4.4 b-h
N18055	5.9 bc	5.1 a	0.9 b-e	13.5 h-k	67.9 b-f	8.0 ab	4.7 b-f
N19003	5.9 b-e	4.9 a-e	0.9 b-e	16.3 f-i	71.8 a-e	1.8 k-o	5.1 b-d
N19006	5.7 b-f	4.8 d-i	0.9 b-e	24.5 a-d	65.0 e-h	2.6 h-o	3.1 d-i
N19009	5.7 b-f	4.8 f-j	1.0 b-e	12.7 i-k	70.7 a-e	6.1 b-e	5.6 bc
N19012	5.7 b-f	4.8 b-i	0.9 b-e	15.1 f-j	71.7 a-e	3.8 e-l	4.4 b-h
N19013	5.8 b-f	4.7 g-j	0.9 b-e	16.8 e-i	62.8 f-h	9.3 a	6.1 b
N19019	5.8 b-f	4.7 h-k	1.1 bc	14.9 g-j	71.5 a-e	2.3 i-no	5.9 b
N19021	5.6 ef	4.7 h-k	0.8 c-e	14.5 g-k	71.8 a-e	3.5 g-m	4.9 b-e
N19024	5.7 b-f	4.8 b-i	0.8 c-e	9.6 jk	75.0 ab	6.7 b-d	3.8 c-i
N19026	5.6 c-f	4.9 b-h	0.8 de	8.7 k	75.3 a	7.5 a-c	3.2 d-i
N19028	5.7 b-f	4.8 b-i	0.9 b-e	17.6 e-i	67.8 c-f	5.1 c-h	3.3 d-i
N19029	5.6 d-f	4.8 c-i	0.8 c-e	27.7 a-c	62.5 f-h	2.5 h-0	2.6 f-i
N19030	5.5 f	4.8 d-i	0.7 e	30.2 a	58.8 h	3.2 h-n	3.0 d-i
N19033	5.7 b-f	4.6 jk	1.0 b-d	19.5 d-h	71.6 a-e	0.5 o	2.8 e-i
N19034	5.5 f	4.6 k	0.9 b-e	22.8 b-e	67.0 c-g	1.0 m-o	4.1 b-h
13x101-2-11-2-1-B	5.7 b-f	4.8 e-i	0.9 b-e	15.6 f-j	63.2 f-h	7.4 a-c	8.9 a
13x101-4-5-2-1-B	5.6 d-f	4.8 g-j	0.9 c-e	28.1 ab	60.4 gh	3.4 h-m	2.7 f-i
13x101-4-9-1-1-B	5.7 b-f	4.8 b-i	0.9 b-e	21.3 c-f	65.7 d-g	4.6 d-i	3.3 d-i
13x101-5-7-2-1-B	5.8 b-f	4.8 e-i	1.0 b-e	19.9 d-g	65.1 e-h	6.1 b-f	3.9 b-h
<b>Mean</b>	<b>5.8</b>	<b>4.8</b>	<b>0.9</b>	<b>18.5</b>	<b>68.9</b>	<b>3.5</b>	<b>4.0</b>
<b>LSD<sup>1</sup></b>	<b>0.3</b>	<b>0.1</b>	<b>0.3</b>	<b>6.1</b>	<b>6.7</b>	<b>2.4</b>	<b>2.1</b>

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

## Blanching Results

**Table 18. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk, VA) and Martin County, NC. Two-year averages (2022- 2023).**

Variety	% H <sub>2</sub> O before roasting	% H <sub>2</sub> O after roasting	%Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.7 bc	4.8 de	1.0 bc	10.8 ab	68.7 ab	2.4 de	14.5 a
Emery	5.8 bc	4.9 a-e	0.9 bc	11.1 ab	67.7 ab	2.8 c-e	15.2 a
NC-20	5.7 c	4.8 e	0.9 bc	10.6 ab	66.0 bc	2.4 de	17.8 a
Sullivan	6.0 a	4.9 a-d	1.1 a	11.4 ab	68.3 ab	2.7 c-e	14.4 a
Walton	5.7 bc	4.8 b-e	0.9 c	16.2 a	62.4 c	2.1 e	16.0 a
N17045	5.8 bc	4.8 c-e	0.9 bc	8.9 b	70.9 a	4.1 bc	13.1 a
N17047	5.7 bc	4.8 b-e	0.9 bc	11.0 ab	66.9 ab	2.2 e	16.8 a
N18010	5.7 bc	4.8 de	0.9 bc	11.0 ab	67.0 ab	2.5 de	16.1 a
N18012	5.7 bc	4.8 e	1.0 bc	12.7 ab	65.0 bc	3.0 c-e	16.1 a
N18026	5.8 bc	4.8 c-e	1.0 bc	10.9 ab	67.1 ab	2.7 c-e	15.8 a
N18029	5.9 ab	4.9 a-c	1.0 a-c	11.4 ab	67.1 ab	3.3 c-e	14.1 a
N18033	5.9 a-c	4.8 b-e	1.0 ab	10.0 b	68.9 ab	2.5 de	15.1 a
N18039	5.9 a-c	4.9 a-c	1.0 bc	11.0 ab	66.3 bc	3.7 cd	15.5 a
N18044	5.8 bc	4.9 a-e	1.0 bc	9.3 b	65.8 bc	5.1 ab	16.2 a
N18049	5.9 ab	4.9 ab	1.0 bc	10.5 ab	65.9 bc	4.0 bc	16.0 a
N18055	5.8 a-c	4.9 a	0.9 bc	8.4 b	65.2 bc	5.9 a	17.0 a
<b>Mean</b>	<b>5.8</b>	<b>4.8</b>	<b>1.0</b>	<b>11.0</b>	<b>66.8</b>	<b>3.2</b>	<b>15.6</b>
<b>LSD<sup>1</sup></b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>6.1</b>	<b>4.1</b>	<b>1.2</b>	<b>8.8</b>

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

## Blanching Results

**Table 19. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk, VA) and Martin County, NC. Three-year averages (2021 - 2023).**

Variety	% H2O before roasting	% H2O after roasting	% Blanching loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey II	5.7 b	4.8 a	0.9 b	8.4 ab	70.6 a	3.1 b	15.1 a
Emery	5.8 ab	4.8 a	0.9 b	8.8 ab	69.0 a	3.3 ab	16.3 a
NC-20	5.7 b	4.8 a	0.9 b	8.5 ab	67.8 ab	3.0 b	18.1 a
Sullivan	5.9 a	4.8 a	1.1 a	9.0 ab	68.9 a	3.3 b	16.1 a
Walton	5.7 b	4.8 a	0.9 b	12.1 a	65.2 b	3.1 b	17.0 a
N17045	5.7 b	4.8 a	0.9 b	7.3 b	70.3 a	4.4 a	15.5 a
N17047	5.7 b	4.8 a	0.9 b	8.6 ab	68.0 ab	3.0 b	17.9 a
<b>Mean</b>	<b>5.7</b>	<b>4.8</b>	<b>0.9</b>	<b>9.0</b>	<b>68.5</b>	<b>3.3</b>	<b>16.6</b>
<b>LSD<sup>1</sup></b>	<b>0.2</b>	<b>0.1</b>	<b>0.1</b>	<b>5.4</b>	<b>3.4</b>	<b>1.1</b>	<b>6.2</b>

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

## Fatty Acid Results

**Table 20. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk, VA), Dig 1, 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.0 g-j	2.8 b-d	78.3 d-f	6.1 f-h	1.2 b	1.6 d-j
Emery	6.1 f-i	2.4 e-m	79.6 c-f	5.9 f-h	1.1 c-j	1.5 h-m
NC-20	6.5 de	2.2 i-q	78.3 ef	7.1 fg	1.0 h-l	1.6 e-j
Sullivan	6.6 d	2.3 f-n	75.0 gh	9.7 de	1.1 c-i	1.5 f-l
Walton	6.5 de	2.4 e-m	73.6 h	10.6 d	1.1 c-e	1.7 a-e
N17045	5.9 h-l	2.0 q	81.8 a-c	4.3 hi	1.0 m	1.7 a-d
N17047	5.8 h-l	2.0 o-q	81.4 a-c	4.2 hi	1.0 k-m	1.8 a
N18010	6.0 g-j	2.1 n-q	79.7 b-f	5.7 f-i	1.0 f-k	1.7 a-d
N18012	7.3 c	2.3 f-n	68.7 i	15.0 c	1.1 c-e	1.5 f-k
N18026	6.2 e-h	3.0 ab	81.3 a-d	3.7 hi	1.2 b	1.4 mn
N18029	5.8 h-l	2.6 d-g	81.8 a-c	3.8 hi	1.1 cd	1.5 g-l
N18033	5.9 h-l	2.2 l-q	81.8 a-c	3.9 hi	1.0 g-l	1.7 b-f
N18039	5.7 j-l	2.2 i-q	82.1 a-c	3.7 hi	1.0 f-k	1.6 b-h
N18044	5.6 j-l	2.3 h-p	82.2 a-c	3.3 i	1.1 c-j	1.7 ab
N18049	5.8 h-l	2.3 g-o	81.7 a-c	3.9 hi	1.1 d-j	1.6 b-h
N18055	5.9 h-l	2.5 e-j	81.4 a-c	3.9 hi	1.1 c-h	1.6 b-h
N19003	6.5 de	2.9 a-c	80.4 a-f	3.8 hi	1.3 ab	1.5 j-m
N19006	6.0 h-j	2.4 e-l	81.1 a-e	3.8 hi	1.1 c-g	1.7 a-d
N19009	5.8 h-l	2.1 m-q	81.0 a-e	4.6 g-i	1.0 j-m	1.7 a-c
N19012	6.0 h-k	2.2 i-q	81.4 a-c	4.3 hi	1.1 e-k	1.6 c-j
N19013	6.4 d-f	2.3 h-o	77.6 fg	7.6 ef	1.1 d-k	1.5 g-l
N19019	6.1 f-i	2.2 k-q	81.6 a-c	4.1 hi	1.0 i-m	1.6 b-i
N19021	6.1 f-i	2.3 h-o	81.1 a-e	4.1 hi	1.1 d-j	1.6 b-g
N19024	5.8 h-l	2.6 d-g	80.8 a-e	4.6 g-i	1.2 c	1.6 c-j
N19026	5.7 i-l	2.6 c-e	82.0 a-c	3.8 hi	1.1 c-e	1.4 l-n
N19028	5.7 i-l	2.5 d-i	81.1 a-e	4.3 hi	1.1 cd	1.5 f-k
N19029	5.5 l	2.5 d-h	82.8 a	3.3 i	1.1 c-f	1.5 i-m
N19030	5.6 kl	2.4 e-k	82.6 ab	3.4 i	1.1 c-j	1.6 e-j
N19033	6.0 h-k	2.0 pq	81.4 a-c	4.4 hi	1.0 lm	1.7 ab
N19034	5.8 h-i	2.2 j-q	81.9 a-c	3.9 hi	1.0 h-l	1.6 c-j
13x101-2-11-2-1-B	9.0 a	2.9 a-c	59.5 k	21.6 a	1.3 ab	1.3 n
13x101-4-5-2-1-B	5.9 h-l	2.5 e-j	80.5 a-f	4.4 hi	1.1 c-e	1.7 a-e
13x101-4-9-1-1-B	8.0 b	2.6 d-f	64.5 j	18.2 b	1.2 b	1.4 k-n
13x101-5-7-2-1-B	6.4 d-g	3.1 a	79.5 c-f	4.3 hi	1.3 a	1.5 f-k
<b>Mean</b>	<b>6.2</b>	<b>2.4</b>	<b>79.1</b>	<b>6.0</b>	<b>1.1</b>	<b>2.3</b>
<b>LSD<sup>2</sup></b>	<b>0.4</b>	<b>0.3</b>	<b>3.0</b>	<b>3.5</b>	<b>0.1</b>	<b>0.2</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 20. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk, VA) Dig 1, 2023<sup>1</sup>, (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.5 b-d	1.4 a	79.2 e-i	13.7 e-h	14.0 c-e	0.4 e-h	5.2 bc
Emery	2.2 g-i	1.2 ab	79.9 e-g	13.4 f-h	12.9 f-k	0.5 ef	4.5 f-i
NC-20	2.2 g-i	1.1 ab	80.8 d-f	11.4 g-i	13.1 f-k	0.5 de	4.3 i
Sullivan	2.3 d-h	1.3 ab	82.6 cd	8.9 h-j	13.7 d-f	0.7 cd	4.7 c-i
Walton	2.6 bc	1.4 a	83.1 c	7.1 i-k	14.0 c-e	0.8 c	5.1 b-d
N17045	2.1 g-i	1.3 ab	79.0 f-i	19.2 cd	12.3 k	0.3 f-i	4.4 hi
N17047	2.3 e-i	1.4 a	78.8 g-j	19.2 cd	12.6 h-k	0.3 f-i	4.7 c-i
N18010	2.3 d-g	1.4 a	79.7 e-h	14.4 d-f	12.9 f-k	0.4 e-g	4.8 c-i
N18012	2.5 c-e	1.5 a	86.3 b	4.7 jk	14.8 c	1.0 b	5.1 b-e
N18026	2.3 f-i	1.0 b	77.4 i-k	22.3 a-c	13.6 d-f	0.3 hi	4.5 f-i
N18029	2.2 g-i	1.2 ab	78.1 g-k	21.8 a-c	12.9 f-k	0.3 g-i	4.5 f-i
N18033	2.2 g-i	1.3 ab	78.4 g-k	20.9 a-c	12.6 g-k	0.3 f-i	4.6 f-i
N18039	2.2 g-i	1.4 a	78.3 g-k	22.0 a-c	12.6 h-k	0.3 f-i	4.7 c-i
N18044	2.3 e-i	1.4 a	77.8 h-k	24.8 ab	12.7 g-k	0.3 i	4.8 c-i
N18049	2.3 e-i	1.3 ab	78.3 g-k	20.9 a-c	12.8 g-k	0.3 f-i	4.7 c-i
N18055	2.3 f-i	1.3 ab	78.0 h-k	21.1 a-c	13.1 f-k	0.3 f-i	4.7 c-i
N19003	2.4 c-f	1.2 ab	76.8 k	21.4 a-c	14.4 cd	0.3 i	4.9 b-f
N19006	2.3 d-g	1.5 a	77.7 i-k	21.4 a-c	13.4 e-h	0.3 g-i	4.9 b-g
N19009	2.3 f-i	1.5 a	79.0 f-i	17.6 c-f	12.7 g-k	0.4 f-i	4.8 c-i
N19012	2.3 e-i	1.1 ab	78.8 g-k	19.4 cd	12.7 g-k	0.3 f-i	4.5 f-i
N19013	2.2 g-i	1.3 ab	81.0 de	10.6 g-i	13.3 e-i	0.6 de	4.6 d-i
N19019	2.1 g-i	1.3 ab	78.5 g-k	20.1 bc	12.7 g-k	0.3 f-i	4.4 f-i
N19021	2.3 d-h	1.5 a	78.1 g-k	20.0 bc	13.2 e-j	0.3 f-i	4.9 b-h
N19024	2.4 d-g	1.2 ab	78.7 g-k	18.1 c-f	13.1 f-k	0.3 f-i	4.7 c-i
N19026	2.1 i	1.2 ab	78.3 g-k	21.5 a-c	12.8 g-k	0.3 f-i	4.4 g-i
N19028	2.3 f-i	1.4 ab	78.5 g-k	18.7 c-e	13.0 f-k	0.3 f-i	4.8 c-i
N19029	2.1 hi	1.2 ab	78.0 g-k	25.4 a	12.5 jk	0.3 i	4.4 f-i
N19030	2.2 g-i	1.1 ab	78.1 g-k	24.6 ab	12.5 jk	0.3 hi	4.4 f-i
N19033	2.2 g-i	1.5 a	78.9 f-i	18.7 c-e	12.5 i-k	0.3 f-i	4.6 e-i
N19034	2.1 g-i	1.4 a	78.4 g-k	21.1 a-c	12.6 g-k	0.3 f-i	4.6 e-i
13x101-2-11-2-1-B	3.2 a	1.3 ab	89.5 a	2.8 k	17.7 a	1.2 a	5.8 a
13x101-4-5-2-1-B	2.5 c-e	1.5 a	78.1 g-k	19.5 c	13.4 e-g	0.3 f-i	5.1 b-e
13x101-4-9-1-1-B	2.7 b	1.4 ab	88.1 ab	3.5 k	15.9 b	1.1 ab	5.3 ab
13x101-5-7-2-1-B	2.8 b	1.1 ab	76.9 jk	19.1 cd	14.7 c	0.3 g-i	5.2 bc
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>79.6</b>	<b>17.4</b>	<b>13.3</b>	<b>0.4</b>	<b>4.7</b>
<b>LSD<sup>2</sup></b>	<b>0.2</b>	<b>0.4</b>	<b>2.0</b>	<b>5.0</b>	<b>0.8</b>	<b>0.2</b>	<b>0.5</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 21. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk, VA), Dig 2, 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	5.9 g-i	2.1 k-o	80.4 a-d	5.4 d-g	1.0 k-n	1.7 a-g
Emery	5.7 g-j	2.1 l-o	81.3 a-c	4.8 e-g	1.0 k-n	1.6 b-h
NC-20	6.3 d-f	1.9 no	79.0 c-e	6.8 de	0.9 o	1.7 a-f
Sullivan	6.9 c	2.2 h-o	71.7 f	12.8 c	1.1 g-j	1.6 b-h
Walton	6.4 de	2.3 f-l	73.9 f	10.7 c	1.1 g-j	1.7 a-g
N17045	5.7 g-j	2.0 m-o	82.1 ab	4.0 g	0.9 m-o	1.8 a-c
N17047	5.8 g-j	1.9 o	81.6 a-c	4.3 e-g	0.9 no	1.8 a
N18010	5.9 f-h	2.1 i-o	79.8 b-e	5.8 d-g	1.0 k-l	1.7 a-g
N18012	8.0 b	2.2 f-m	63.9 g	19.5 ab	1.1 g-j	1.5 h-j
N18026	6.0 f-h	3.1 ab	81.9 a-c	3.4 g	1.3 bc	1.3 jk
N18029	5.7 g-j	2.5 e-g	81.9 a-c	4.0 g	1.1 f-h	1.5 g-i
N18033	5.9 f-h	2.1 l-o	81.7 a-c	4.1 fg	1.0 k-m	1.7 a-g
N18039	5.6 h-j	2.2 g-n	82.0 ab	4.2 fg	1.0 i-l	1.7 a-g
N18044	5.6 h-j	2.4 e-i	82.1 ab	3.5 g	1.1 fg	1.7 a-e
N18049	6.1 e-g	1.9 m-o	80.2 a-e	5.4 d-g	1.0 l-o	1.8 ab
N18055	5.8 g-j	2.4 e-k	81.3 a-c	4.0 g	1.1 f-h	1.8 a-c
N19003	6.6 cd	3.2 a	80.5 a-d	3.6 g	1.3 a	1.4 i-k
N19006	5.8 g-j	2.5 ef	81.4 a-c	3.7 g	1.1 e-g	1.7 a-g
N19009	5.8 g-j	2.1 j-o	80.8 a-c	4.9 d-g	1.0 j-l	1.7 a-e
N19012	5.8 g-j	2.3 f-l	81.8 a-c	4.0 g	1.1 g-j	1.6 b-h
N19013	6.3 d-f	2.3 f-l	77.9 de	7.3 d	1.0 h-k	1.6 d-h
N19019	5.9 g-i	2.1 l-o	81.6 a-c	4.2 fg	1.0 k-m	1.7 a-d
N19021	6.0 f-h	2.2 f-l	81.0 a-c	4.1 fg	1.1 g-j	1.7 a-f
N19024	5.7 h-j	2.5 ef	81.5 a-c	4.2 e-g	1.1 f-h	1.5 g-i
N19026	5.7 g-j	2.4 e-l	81.2 a-c	4.6 e-g	1.1 g-i	1.6 b-h
N19028	5.8 e-j	2.4 e-j	81.3 a-c	4.5 e-g	1.1 g-i	1.5 f-i
N19029	5.4 j	2.4 e-h	82.8 a	3.3 g	1.1 gh	1.6 e-i
N19030	5.5 ij	2.4 e-l	82.6 ab	3.5 g	1.1 g-j	1.6 c-h
N19033	6.0 e-h	1.9 no	81.0 a-c	4.9 d-g	0.9 o	1.7 a-d
N19034	5.8 g-j	1.9 no	82.3 ab	4.2 fg	0.9 o	1.7 a-g
13x101-2-11-2-1-B	8.8 a	2.9 bc	59.6 h	22.0 a	1.3 b	1.2 k
13x101-4-5-2-1-B	5.8 g-j	2.8 cd	80.3 a-e	4.2 fg	1.2 cd	1.7 a-g
13x101-4-9-1-1-B	8.1 b	2.5 e-g	63.9 g	18.9 b	1.2 de	1.5 h-j
13x101-5-7-2-1-B	6.4 de	2.5 de	77.5 e	6.6 d-f	1.2 d-f	1.7 a-g
<b>Mean</b>	<b>6.1</b>	<b>2.3</b>	<b>78.9</b>	<b>6.3</b>	<b>1.1</b>	<b>1.6</b>
<b>LSD<sup>2</sup></b>	<b>0.4</b>	<b>0.3</b>	<b>2.9</b>	<b>2.6</b>	<b>0.1</b>	<b>0.2</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 21. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk, VA), Dig 2, 2023<sup>1</sup> (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.2 g-k	1.3 a-d	79.9 c-e	15.1 i-m	12.5 l-o	0.4 c-f	4.5 i-m
Emery	2.1 h-l	1.3 a-d	79.5 c-f	17.1 f-k	12.3 m-p	0.4 d-h	4.4 j-m
NC-20	2.1 i-l	1.2 c-f	81.1 c	11.9 l-n	12.5 l-o	0.5 cd	4.2 mn
Sullivan	2.4 c	1.4 a-d	85.0 b	5.8 o	13.9 e	0.9 b	4.9 c-f
Walton	2.4 c	1.5 a	83.4 b	7.1 no	13.7 e-g	0.8 b	5.0 b-d
N17045	2.1 h-l	1.4 a-d	79 d-g	20.4 b-h	12.1 op	0.3 e-h	4.5 j-m
N17047	2.2 h-l	1.5 ab	79.1 c-g	18.8 d-j	12.2 m-p	0.4 e-h	4.6 h-l
N18010	2.2 e-i	1.4 a-d	80.0 c-e	13.8 k-m	12.7 i-m	0.5 c-e	4.7 e-k
N18012	2.4 c	1.4 a-d	89.9 a	3.3 o	15.1 c	1.3 a	4.9 b-e
N18026	2.2 h-l	1.0 f	77.3 gh	24.2 ab	13.4 f-h	0.3 h	4.4 k-n
N18029	2.2 h-l	1.2 c-f	78.5 e-g	20.6 a-g	12.6 k-o	0.3 e-h	4.4 j-m
N18033	2.1 h-l	1.4 a-d	78.7 e-g	19.9 b-i	12.5 l-o	0.3 e-h	4.5 i-m
N18039	2.1 h-l	1.2 b-e	79.1 c-g	19.6 b-i	12.2 n-p	0.3 e-h	4.4 l-n
N18044	2.2 e-i	1.3 a-e	78.0 e-h	23.6 a-d	12.7 j-n	0.3 f-h	4.6 f-l
N18049	2.3 c-g	1.3 a-d	79.7 c-f	15.6 h-l	12.6 k-o	0.4 c-g	4.6 g-l
N18055	2.3 c-f	1.3 a-e	78.3 e-h	20.4 a-h	12.9 i-l	0.3 e-h	4.7 e-j
N19003	2.4 cd	1.1 ef	76.4 h	22.7 a-e	14.6 b	0.2 h	4.8 d-i
N19006	2.3 c-g	1.4 a-c	77.8 f-h	21.9 a-f	13.2 h-j	0.3 f-h	4.9 d-h
N19009	2.3 d-h	1.4 a-c	79.3 c-g	16.9 g-k	12.6 k-o	0.4 d-h	4.7 e-j
N19012	2.2 e-i	1.2 d-f	78.6 e-g	20.3 b-h	12.5 l-o	0.3 e-h	4.5 j-m
N19013	2.2 e-i	1.4 a-d	80.9 cd	10.7 mn	13.2 g-i	0.6 c	4.6 e-l
N19019	2.2 f-k	1.3 a-d	78.8 e-g	19.6 b-i	12.5 l-o	0.3 e-h	4.5 i-m
N19021	2.3 c-e	1.5 a	78.2 e-h	19.6 b-i	13.1 h-k	0.3 e-h	4.9 c-g
N19024	2.2 f-j	1.3 a-d	78.6 e-g	19.2 c-j	12.7 i-m	0.3 e-h	4.6 e-l
N19026	2.2 e-i	1.2 c-f	79.0 c-g	17.7 f-k	12.6 k-o	0.4 e-h	4.5 i-m
N19028	2.1 h-l	1.3 a-e	78.9 d-g	18.3 e-k	12.7 j-n	0.4 e-h	4.5 i-m
N19029	2.0 kl	1.3 a-d	78.2 e-h	25.2 a	12.3 m-p	0.3 gh	4.4 j-m
N19030	2.1 i-l	1.3 a-d	78.3 e-h	23.7 a-c	12.3 m-p	0.3 f-h	4.5 j-m
N19033	2.1 j-l	1.4 a-c	79.5 c-f	16.7 g-l	12.4 m-p	0.4 c-h	4.4 j-n
N19034	2.0 l	1.2 d-f	79.3 c-g	19.8 b-i	11.9 p	0.4 e-h	4.1 n
13x101-2-11-2-1-B	2.9 a	1.3 a-e	90.4 a	2.7 o	17.2 a	1.3 a	5.5 a
13x101-4-5-2-1-B	2.6 b	1.4 a-d	77.7 f-h	19.4 b-j	13.8 ef	0.3 e-h	5.2 bc
13x101-4-9-1-1-B	2.7 b	1.4 a-d	88.8 a	3.4 o	15.8 b	1.2 a	5.2 ab
13x101-5-7-2-1-B	2.7 b	1.4 a-d	79.5 c-f	14.6 j-m	14.2 de	0.5 c-e	5.2 ab
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>80.1</b>	<b>16.8</b>	<b>13.1</b>	<b>0.5</b>	<b>4.7</b>
<b>LSD<sup>2</sup></b>	<b>0.1</b>	<b>0.2</b>	<b>2.1</b>	<b>4.9</b>	<b>0.5</b>	<b>0.2</b>	<b>0.3</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.



## Fatty Acid Results

**Table 22. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Averages of all Digs from Tidewater AREC (Suffolk, VA), 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	5.9 f-i	2.5 d-g	79.4 e-h	5.8 d-f	1.1 e-g	1.6 c-i
Emery	5.9 f-j	2.3 g-j	80.5 c-f	5.3 e-g	1.0 h-l	1.6 f-j
NC-20	6.4 e	2.1 jk	78.7 f-h	6.9 de	1.0 l-o	1.6 b-h
Sullivan	6.8 d	2.3 g-j	73.3 i	11.3 c	1.1 f-j	1.6 e-j
Walton	6.5 e	2.3 e-i	73.8 i	10.6 c	1.1 f-i	1.7 b-d
N17045	5.8 f-j	2.0 k	81.9 a-c	4.1 f-h	0.9 no	1.7 a-c
N17047	5.8 f-j	2.0 k	81.5 a-d	4.3 f-h	1.0 m-o	1.8 a
N18010	6.0 f-i	2.1 i-k	79.7 d-g	5.7 d-f	1.0 i-l	1.7 b-e
N18012	7.7 c	2.3 f-j	66.3 j	17.3 b	1.1 e-i	1.5 jk
N18026	6.1 f	3.0 ab	81.6 a-d	3.5 h	1.3 a-c	1.3 lm
N18029	5.8 g-k	2.5 d-f	81.9 a-c	3.9 gh	1.1 e-g	1.5 i-k
N18033	5.9 f-j	2.1 i-k	81.7 a-c	4.0 gh	1.0 k-o	1.7 b-g
N18039	5.6 j-l	2.2 h-j	82.0 a-c	4.0 gh	1.0 i-l	1.6 b-h
N18044	5.7 j-l	2.3 e-i	82.2 a-c	3.4 h	1.1 f-i	1.7 ab
N18049	5.9 f-i	2.1 i-k	81.0 a-e	4.6 f-h	1.0 j-m	1.7 b-d
N18055	5.9 f-j	2.4 d-h	81.4 a-d	3.9 gh	1.1 e-h	1.7 b-d
N19003	6.6 de	3.1 a	80.4 c-f	3.7 h	1.3 a	1.4 kl
N19006	5.9 f-i	2.5 d-g	81.3 a-e	3.8 gh	1.1 e-g	1.7 a-d
N19009	5.8 f-k	2.1 i-k	80.9 b-e	4.7 f-h	1.0 k-n	1.7 a-c
N19012	5.9 f-j	2.2 g-j	81.6 a-d	4.2 f-h	1.1 f-k	1.6 d-j
N19013	6.4 e	2.3 g-j	77.8 h	7.4 d	1.1 g-k	1.5 h-k
N19019	6.0 f-i	2.1 i-k	81.6 a-d	4.1 f-h	1.0 k-o	1.7 b-f
N19021	6.0 fg	2.3 g-j	81.1 a-e	4.1 f-h	1.1 f-k	1.7 b-f
N19024	5.7 i-l	2.5 d-f	81.1 a-e	4.4 f-h	1.1 ef	1.6 g-j
N19026	5.7 i-l	2.5 d-f	81.6 a-d	4.2 f-h	1.1 e-h	1.5 i-k
N19028	5.7 h-l	2.5 d-g	81.2 a-e	4.4 f-h	1.1 e-g	1.5 h-k
N19029	5.5 l	2.5 d-g	82.8 a	3.3 h	1.1 e-i	1.5 i-k
N19030	5.5 kl	2.4 d-h	82.6 ab	3.4 h	1.1 f-k	1.6 e-j
N19033	6.0 f-h	2.0 k	81.2 a-e	4.6 f-h	0.9 o	1.7 ab
N19034	5.8 f-j	2.1 jk	82.1 a-c	4.0 gh	1.0 l-m	1.6 b-h
13x101-2-11-2-1-B	8.9 a	2.9 ab	59.5 l	21.8 a	1.3 ab	1.2 m
13x101-4-5-2-1-B	5.8 f-j	2.6 cd	80.4 c-g	4.3 f-h	1.2 de	1.7 b-e
13x101-4-9-1-1-B	8.0 b	2.5 de	64.2 k	18.5 b	1.2 cd	1.4 kl
13x101-5-7-2-1-B	6.4 e	2.8 bc	78.5 gh	5.4 e-g	1.2 bc	1.6 c-i
<b>Mean</b>	<b>6.2</b>	<b>2.4</b>	<b>79.0</b>	<b>6.1</b>	<b>1.1</b>	<b>1.6</b>
<b>LSD<sup>2</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>1.9</b>	<b>1.7</b>	<b>0.1</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 22. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of all Digs from Tidewater AREC (Suffolk, VA), 2023<sup>1</sup> (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.4 e-h	1.4 a-e	79.5 ef	14.4 kl	13.2 e-g	0.4 d-f	4.8 c-f
Emery	2.2 k-p	1.3 b-h	79.7 de	15.3 jk	12.6 i-l	0.4 e-g	4.5 g-k
NC-20	2.1 m-p	1.2 f-i	80.9 d	11.7 lm	12.8 f-k	0.5 cd	4.3 k
Sullivan	2.4 d-g	1.4 a-f	83.8 c	7.3 n	13.8 d	0.8 b	4.8 d-f
Walton	2.5 cd	1.5 ab	83.2 c	7.1 no	13.9 d	0.8 b	5.1 b-d
N17045	2.1 n-p	1.4 a-f	79.0 e-h	19.8n d-i	12.2 l	0.3 e-k	4.4 i-k
N17047	2.2 h-o	1.4 a-c	79.0 e-h	19.0 d-i	12.4 j-l	0.3 e-k	4.6 f-j
N18010	2.3 f-k	1.4 a-d	79.9 de	14.1 kl	12.8 f-k	0.4 de	4.7 e-g
N18012	2.5 c-e	1.4 a-c	88.1 b	4.0 op	14.9 c	1.2 a	5.0 b-e
N18026	2.2 i-p	1.0 i	77.3 ij	23.3 a-c	13.5 de	0.3 jk	4.4 h-k
N18029	2.2 j-p	1.2 e-h	78.3 f-i	21.2 b-f	12.8 g-k	0.3 h-k	4.5 g-k
N18033	2.2 l-p	1.4 a-f	78.6 e-i	20.4 c-h	12.6 i-l	0.3 g-k	4.5 g-k
N18039	2.2 k-p	1.3 a-g	78.7 e-i	20.8 c-g	12.4 kl	0.3 g-k	4.5 g-k
N18044	2.3 g-n	1.4 a-e	77.9 g-j	24.2 ab	12.7 h-l	0.3 h-k	4.7 f-i
N18049	2.3 f-j	1.3 a-h	79.0 e-h	18.3 f-j	12.7 h-l	0.4 e-i	4.6 f-i
N18055	2.3 f-l	1.3 a-h	78.1 g-i	20.8 c-g	13.0 f-i	0.3 h-k	4.7 f-i
N19003	2.4 c-f	1.1 hi	76.6 j	22.0 b-d	14.5 c	0.3 k	4.9 c-f
N19006	2.3 f-i	1.4 a-c	77.7 h-j	21.7 b-e	13.3 e-g	0.3 h-k	4.9 c-f
N19009	2.3 g-n	1.4 a-c	79.1 e-g	17.2 h-k	12.7 i-l	0.4 e-i	4.7 e-h
N19012	2.3 g-n	1.1 g-i	78.7 e-i	19.9 d-i	12.6 i-l	0.3 f-k	4.5 g-k
N19013	2.2 h-o	1.3 a-g	81.0 d	10.6 m	13.3 ef	0.6 c	4.6 f-j
N19019	2.2 k-p	1.3 a-h	78.7 e-i	19.8 d-i	12.6 i-l	0.3 f-k	4.5 g-k
N19021	2.3 e-i	1.5 a	78.1 g-i	19.8 d-i	13.2 e-h	0.3 h-k	4.9 c-f
N19024	2.3 g-m	1.3 a-h	78.6 e-i	18.6 e-i	12.9 f-j	0.3 e-k	4.7 f-i
N19026	2.2 k-p	1.2 e-h	78.7 e-i	19.6 d-i	12.7 h-l	0.3 f-k	4.5 g-k
N19028	2.2 i-p	1.3 a-g	78.7 e-i	18.5 f-i	12.8 f-k	0.3 e-k	4.6 f-j
N19029	2.1 p	1.2 c-h	78.1 g-i	25.3 a	12.4 j-l	0.3 i-k	4.4 i-k
N19030	2.2 l-p	1.2 d-h	78.2 f-i	24.1 ab	12.4 kl	0.3 h-k	4.5 g-k
N19033	2.1 op	1.4 ab	79.2 e-g	17.7 g-j	12.5 j-l	0.4 e-i	4.5 g-k
N19034	2.1 p	1.3 a-h	78.9 e-h	20.4 c-g	12.3 l	0.3 f-k	4.4 jk
13x101-2-11-2-1-B	3.0 a	1.3 a-h	90.0 a	2.7 p	17.4 a	1.3 a	5.6 a
13x101-4-5-2-1-B	2.6 c	1.4 a-d	77.9 g-j	19.5 d-i	13.6 de	0.3 g-k	5.1 bc
13x101-4-9-1-1-B	2.7 b	1.4 a-e	88.5 b	3.5 p	15.8 b	1.2 a	5.3 b
13x101-5-7-2-1-B	2.7 b	1.3 b-h	78.2 f-i	16.9 i-k	14.5 c	0.4 e-h	5.2 b
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>79.9</b>	<b>17.0</b>	<b>13.2</b>	<b>0.4</b>	<b>4.7</b>
<b>LSD<sup>2</sup></b>	<b>0.1</b>	<b>0.2</b>	<b>1.4</b>	<b>3.2</b>	<b>0.5</b>	<b>0.1</b>	<b>0.3</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 23. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 1, 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.2 f-i	1.9 e-m	79.0 a-e	6.5 fg	1.0 h-k	1.8 f-h
Emery	6.4 fg	2.0 d-j	77.1 c-g	7.5 fg	1.0 c-f	2.0 b-g
NC-20	6.9 de	1.8 i-m	73.9 g-i	10.8 c-e	1.0 h-k	1.8 f-h
Sullivan	7.6 c	1.9 g-m	66.8 kl	16.6 b	1.0 g-k	2.0 b-g
Walton	6.3 f-h	2.0 c-h	75.0 f-h	9.3 d-f	1.1 c-e	2.0 a-f
N17045	6.2 f-i	1.8 k-m	78.2 a-f	6.5 fg	0.9 jk	2.0 ab
N17047	6.1 f-j	1.8 k-m	79.7 a-e	5.9 g	0.9 k	2.0 b-g
N18010	6.2 f-i	1.7 m	78.4 a-f	7.0 fg	0.9 jk	2.0 b-g
N18012	8.1 b	1.9 d-l	64.4 l	18.7 ab	1.0 d-i	1.7 hi
N18026	6.9 d	2.4 a	76.8 e-g	7.6 e-g	1.2 b	1.6 i
N18029	6.2 f-j	2.1 cd	79.1 a-e	6.0 g	1.1 c-e	1.9 f-h
N18033	6.4 fg	1.8 lm	78.4 a-f	6.5 fg	0.9 i-k	2.1 a-e
N18039	6.0 g-j	2.0 c-i	80.1 a-e	5.5 g	1.0 f-j	1.9 c-h
N18044	5.8 h-j	2.0 c-g	80.6 a-d	4.7 g	1.0 c-g	2.0 b-g
N18049	6.4 fg	1.9 f-m	77.8 b-f	7.0 fg	1.0 f-j	2.2 ab
N18055	5.9 g-j	2.1 cd	80.0 a-e	5.3 g	1.0 c-e	2.0 b-g
N19003	6.9 de	2.4 ab	77.0 d-g	6.2 fg	1.2 a	2.0 b-h
N19006	6.5 d-f	1.9 e-l	76.6 e-g	7.2 fg	1.0 c-g	2.3 a
N19009	6.2 f-j	1.8 h-m	77.9 b-f	7.0 fg	1.0 g-k	2.1 a-c
N19012	6.2 f-j	1.8 i-m	79.4 a-e	6.0 g	1.0 f-j	2.0 b-g
N19013	6.5 ef	1.8 i-m	77.7 b-f	7.3 fg	1.0 f-j	2.1 a-e
N19019	6.3 f-h	1.9 g-m	79.0 a-e	6.1 fg	1.0 h-k	2.0 b-g
N19021	6.1 f-j	1.8 j-m	79.1 a-e	5.8 g	1.0 g-k	2.1 a-d
N19024	5.9 g-j	2.1 c-e	78.7 a-e	6.5 fg	1.1 c-e	1.9 b-h
N19026	6.1 f-j	2.2 bc	78.6 a-f	6.3 fg	1.1 c	1.8 f-h
N19028	6.1 f-j	2.1 cd	77.7 b-f	7.4 fg	1.1 cd	1.9 e-h
N19029	5.7 j	2.0 d-i	81.8 a	4.6 g	1.0 c-h	1.8 g-i
N19030	5.8 ij	2.0 d-k	81.1 ab	4.9 g	1.0 e-i	1.9 f-h
N19033	6.1 f-j	1.8 j-m	80.8 a-c	5.2 g	0.9 i-k	1.9 e-h
N19034	6.1 f-j	1.8 lm	79.9 a-e	5.7 g	0.9 jk	2.0 b-f
13x101-2-11-2-1-B	8.8 a	2.4 ab	59.6 m	21.8 a	1.2 ab	1.6 i
13x101-4-5-2-1-B	7.0 d	2.1 c-f	70.4 i-k	13.4 c	1.1 cd	1.9 c-h
13x101-4-9-1-1-B	7.7 bc	2.4 ab	69.0 jk	12.6 c	1.2 a	2.2 ab
13x101-5-7-2-1-B	6.8 de	2.0 c-i	72.6 h-j	11.7 cd	1.0 c-g	1.9 d-h
<b>Mean</b>	<b>6.5</b>	<b>2.0</b>	<b>76.5</b>	<b>8.2</b>	<b>1.0</b>	<b>2.0</b>
<b>LSD<sup>2</sup></b>	<b>0.5</b>	<b>0.2</b>	<b>3.7</b>	<b>3.3</b>	<b>0.1</b>	<b>0.2</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 23. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 1, 2023<sup>1</sup>, (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.3 i-l	1.3 a-f	80.6 d-g	12.3 e-j	12.7 k-o	0.5 d-f	4.6 i-n
Emery	2.6 e-j	1.4 a-d	80.9 d-g	10.5 i-k	13.4 g-j	0.6 d-f	5.0 d-i
NC-20	2.3 i-l	1.4 a-e	83.8 bc	7.0 lm	13.4 g-j	0.8 bc	4.7 g-m
Sullivan	2.8 de	1.4 a-e	87.8 a	4.1 m-o	14.6 c-e	1.1 a	5.2 c-g
Walton	2.8 de	1.5 a	82.1 c-e	8.3 kl	13.7 f-i	0.7 cd	5.4 b-e
N17045	2.6 e-h	1.5 a	80.3 e-g	12.0 f-j	13.1 i-l	0.5 d-f	5.1 c-h
N17047	2.3 j-l	1.3 a-f	80.4 e-g	13.6 d-i	12.4 m-p	0.5 ef	4.5 k-n
N18010	2.5 f-j	1.3 a-f	81.1 d-f	11.2 g-k	12.6 k-o	0.6 d-f	4.7 g-m
N18012	2.7 d-f	1.4 a-e	89.2 a	3.6 no	15.1 c	1.2 a	5.1 c-g
N18026	2.5 f-j	1.0 f	80.5 d-g	10.2 jk	14.0 e-g	0.5 d-f	4.6 h-n
N18029	2.5 f-j	1.2 a-f	79.9 e-g	13.5 d-i	13.1 i-l	0.5 ef	4.8 f-l
N18033	2.5 f-j	1.4 a-f	80.4 e-g	12.0 f-j	12.9 j-m	0.5 d-f	4.8 f-l
N18039	2.3 i-l	1.2 a-f	79.9 e-g	14.6 b-f	12.5 l-p	0.4 ef	4.5 j-n
N18044	2.4 h-l	1.4 a-f	79.0 fg	17.3 ab	12.7 k-o	0.4 f	4.8 f-l
N18049	2.7 e-g	1.2 a-f	80.7 d-g	11.6 f-j	13.0 l-m	0.5 d-f	4.8 f-l
N18055	2.4 h-l	1.2 a-f	79.5 fg	15.2 a-e	12.7 k-o	0.4 ef	4.7 g-m
N19003	3.1 bc	1.3 a-f	78.6 g	12.4 e-j	14.8 cd	0.4 ef	5.6 bc
N19006	3.0 cd	1.5 a-c	80.1 e-g	10.8 h-k	13.9 fg	0.5 d-f	5.5 b-d
N19009	2.6 e-h	1.4 a-f	80.8 d-g	11.1 g-k	13.0 j-m	0.5 d-f	5.0 e-j
N19012	2.5 e-j	1.1 b-f	80.2 e-g	13.3 d-i	12.6 k-o	0.5 ef	4.6 h-n
N19013	2.6 e-j	1.1 c-f	81.1 d-f	10.7 h-k	12.9 j-m	0.6 de	4.6 h-n
N19019	2.4 g-k	1.3 a-f	80.1 e-g	12.9 d-j	12.8 j-n	0.5 ef	4.7 g-m
N19021	2.5 e-j	1.4 a-d	79.8 e-g	13.7 c-h	12.9 j-m	0.5 ef	4.9 e-k
N19024	2.5 e-j	1.2 a-f	80.5 d-g	12.2 e-j	12.8 j-n	0.5 d-f	4.8 f-l
N19026	2.6 e-j	1.3 a-f	80.0 e-g	12.7 d-j	13.3 h-k	0.5 ef	4.9 e-k
N19028	2.6 e-i	1.1 b-f	81.1 d-f	10.5 i-k	13.0 j-m	0.6 de	4.7 g-m
N19029	2.2 l	1.0 ef	79.6 fg	18.0 a	11.9 p	0.4 ef	4.2 n
N19030	2.4 h-l	1.0 d-f	79.7 e-g	16.8 a-c	12.1 op	0.4 ef	4.4 l-n
N19033	2.2 kl	1.2 a-f	79.9 e-g	15.7 a-d	12.2 n-p	0.4 ef	4.3 mn
N19034	2.3 i-l	1.3 a-f	80.2 e-g	14.2 b-g	12.4 m-p	0.5 ef	4.5 j-n
13x101-2-11-2-1-B	3.3 b	1.4 a-f	90.2 a	2.8 o	17.1 a	1.3 a	5.8 ab
13x101-4-5-2-1-B	2.7 d-f	1.5 ab	85.2 b	5.3 l-o	14.3 d-f	0.9 b	5.3 c-f
13x101-4-9-1-1-B	3.7 a	1.2 a-f	82.9 b-d	5.8 l-o	16.2 b	0.8 bc	6.2 a
13x101-5-7-2-1-B	2.6 e-i	1.3 a-f	84.2 bc	6.2 l-n	13.8 f-h	0.8 bc	5.0 e-k
<b>Mean</b>	<b>2.6</b>	<b>1.3</b>	<b>81.5</b>	<b>11.2</b>	<b>13.3</b>	<b>0.6</b>	<b>4.9</b>
<b>LSD<sup>2</sup></b>	<b>0.3</b>	<b>0.4</b>	<b>2.5</b>	<b>3.1</b>	<b>0.7</b>	<b>0.2</b>	<b>0.5</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 24. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 2, 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.3 d-h	2.2 a-c	79.8 a-c	5.2 ef	1.1 a-e	1.7 d-g
Emery	6.4 d-g	1.9 d-k	77.2 b-d	8.3 d-f	1.0 e-j	1.8 d-g
NC-20	6.1 e-i	1.9 g-l	79.6 a-c	6.1 ef	0.9 f-j	1.7 d-g
Sullivan	6.9 cd	2.0 c-j	71.7 ef	12.8 bc	1.0 c-h	1.7 d-g
Walton	6.6 d-f	2.0 c-j	73.0 d-f	11.0 b-d	1.0 b-g	2.1 ab
N17045	5.8 g-i	1.8 j-l	81.1 ab	5.0 ef	0.9 h-j	1.8 c-g
N17047	5.8 g-i	1.8 i-l	81.3 ab	4.7 f	0.9 ij	1.8 c-f
N18010	5.9 f-i	1.7 l	79.7 a-c	6.0 ef	0.9 h-j	1.9 b-d
N18012	7.3 bc	1.9 h-l	70.2 fg	14.6 ab	0.9 f-j	1.6 fg
N18026	6.4 d-g	2.3 a	80.2 a-c	4.9 f	1.1 ab	1.6 g
N18029	5.8 g-i	2.1 b-f	81.6 ab	4.7 f	1.0 b-g	1.7 e-g
N18033	6.1 e-i	1.9 g-l	79.8 a-c	6.0 ef	0.9 g-j	1.8 c-g
N18039	5.9 f-i	1.8 j-l	79.7 a-c	6.0 ef	0.9 g-j	2.0 a-c
N18044	5.9 f-i	2.1 b-g	79.4 a-c	5.9 ef	1.0 b-g	1.9 b-e
N18049	5.9 g-i	1.8 i-l	80.0 a-c	5.5 ef	1.0 f-j	1.9 c-e
N18055	5.7 hi	2.1 b-g	81.6 ab	4.2 f	1.0 b-g	1.9 c-e
N19003	6.3 d-h	2.1 b-e	80.1 a-c	5.0 ef	1.1 a-d	1.8 d-g
N19006	6.2 e-h	1.8 i-l	78.7 a-c	6.3 ef	1.0 f-j	2.2 a
N19009	5.9 g-i	1.9 g-l	80.0 a-c	5.7 ef	0.9 f-j	1.9 c-e
N19012	5.8 g-i	1.9 g-l	80.8 a-c	5.2 ef	1.0 f-j	1.8 c-e
N19013	5.9 g-i	1.9 e-k	80.9 ab	5.1 ef	1.0 f-j	1.8 d-g
N19019	6.0 f-i	1.8 j-l	80.7 a-c	5.0 ef	0.9 h-j	1.9 c-e
N19021	6.0 f-i	1.9 f-l	81.3 ab	4.6 f	0.9 f-j	1.8 c-g
N19024	5.8 g-i	2.1 b-f	79.4 a-c	6.2 ef	1.0 b-f	1.7 e-g
N19026	5.9 g-i	2.1 b-f	80.0 a-c	5.4 ef	1.0 b-g	1.8 d-g
N19028	6.0 f-i	2.1 c-h	79.0 a-c	6.6 ef	1.0 c-g	1.7 d-g
N19029	5.5 i	1.9 d-k	82.1 a	4.2 f	1.0 f-j	1.7 d-g
N19030	5.5 i	2.0 c-i	81.8 ab	4.4 f	1.0 c-i	1.8 c-f
N19033	5.9 g-i	1.8 i-l	80.9 ab	5.3 ef	0.9 j	1.8 c-g
N19034	5.9 g-i	1.8 kl	81.1 ab	4.9 f	0.9 j	1.9 c-e
13x101-2-11-2-1-B	8.1 a	2.2 a-d	65.2 h	17.2 a	1.1 a-c	1.7 e-g
13x101-4-5-2-1-B	6.3 d-g	1.9 e-k	76.2 c-e	9.1 c-e	1.0 f-j	1.8 d-g
13x101-4-9-1-1-B	7.8 ab	2.3 ab	65.6 gh	17.2 a	1.1 a	1.8 d-g
13x101-5-7-2-1-B	6.7 c-e	1.9 e-k	73.2 d-f	11.6 b-d	1.0 d-j	1.7 d-g
<b>Mean</b>	<b>6.2</b>	<b>2.0</b>	<b>78.3</b>	<b>7.1</b>	<b>1.0</b>	<b>1.8</b>
<b>LSD<sup>2</sup></b>	<b>0.7</b>	<b>0.2</b>	<b>4.7</b>	<b>4.1</b>	<b>0.1</b>	<b>0.2</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 24. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 2, 2023<sup>1</sup>, (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.4 c-f	1.4 a-e	79.0 ef	15.4 a-d	13.3 b-f	0.4 ef	4.8 cd
Emery	2.3 d-g	1.2 b-f	82.1 b-e	10.6 d-f	12.7 d-i	0.6 c-e	4.4 d-f
NC-20	2.1 fg	1.4 a-e	80.4 c-f	14.4 a-e	12.5 e-i	0.5 d-f	4.5 d-f
Sullivan	2.4 d-g	1.5 a-d	85.2 ab	5.6 fg	13.8 bc	0.9 ab	4.9 b-d
Walton	2.7 bc	1.6 a	83.5 bc	6.8 fg	13.9 b	0.8 bc	5.3 a-c
N17045	2.2 e-g	1.4 a-e	79.8 d-f	16.3 a-d	12.1 g-i	0.4 ef	4.5 d-f
N17047	2.1 fg	1.5 a-e	79.6 d-f	17.2 a-c	12.1 g-i	0.4 ef	4.5 d-f
N18010	2.3 d-g	1.5 a-c	80.4 c-f	13.5 b-e	12.4 f-i	0.5 d-f	4.8 de
N18012	2.3 d-g	1.2 b-f	86.9 a	4.8 fg	13.6 b-d	1.1 a	4.4 d-f
N18026	2.3 d-g	1.1 ef	78.7 f	16.5 a-c	13.3 b-f	0.4 f	4.5 d-f
N18029	2.2 e-g	0.9 f	79.6 d-f	17.6 a-c	12.1 hi	0.4 ef	4.1 f
N18033	2.2 e-g	1.3 a-f	80.5 c-f	13.6 a-e	12.3 f-i	0.5 d-f	4.4 d-f
N18039	2.4 d-g	1.3 a-f	80.5 c-f	13.4 b-e	12.3 f-i	0.5 d-f	4.6 d-f
N18044	2.3 d-g	1.5 a-e	80.0 d-f	15.6 a-d	12.8 c-i	0.5 d-f	4.8 cd
N18049	2.3 d-g	1.5 a-c	79.9 d-f	14.6 a-d	12.6 e-i	0.4 d-f	4.8 cd
N18055	2.2 d-g	1.3 a-f	78.9 f	19.4 a	12.3 f-i	0.3 f	4.6 d-f
N19003	2.5 c-e	1.1 d-f	79.0 ef	16.1 a-d	13.1 b-g	0.4 ef	4.7 de
N19006	2.5 cd	1.4 a-e	80.2 d-f	13.0 c-e	12.9 b-i	0.5 d-f	4.9 b-d
N19009	2.3 d-g	1.4 a-e	80.2 d-f	14.2 a-e	12.4 f-i	0.5 d-f	4.6 d-f
N19012	2.3 d-g	1.2 a-f	79.9 d-f	15.5 a-d	12.2 g-i	0.4 ef	4.5 d-f
N19013	2.2 d-g	1.2 b-f	79.8 d-f	16.1 a-d	12.2 g-i	0.4 ef	4.4 d-f
N19019	2.2 e-g	1.5 a-c	79.5 d-f	16.2 a-d	12.5 f-i	0.4 ef	4.6 d-f
N19021	2.2 d-g	1.2 c-f	79.4 ef	17.5 a-c	12.2 g-i	0.4 ef	4.3 d-f
N19024	2.2 d-g	1.4 a-e	80.4 c-f	12.8 c-e	12.6 d-i	0.5 d-f	4.7 de
N19026	2.3 d-g	1.5 a-e	79.5 d-f	14.9 a-d	12.8 c-i	0.4 ef	4.8 b-d
N19028	2.3 d-g	1.3 a-f	80.8 c-f	13.1 c-e	12.7 d-i	0.5 d-f	4.6 d-f
N19029	2.1 fg	1.4 a-e	79.3 ef	19.4 a	12.0 i	0.4 f	4.5 d-f
N19030	2.3 d-g	1.2 c-f	79.4 ef	19.1 ab	12.0 i	0.4 f	4.4 d-f
N19033	2.1 fg	1.3 a-f	80.2 d-f	15.6 a-d	12.0 i	0.4 d-f	4.2 ef
N19034	2.1 g	1.5 a-e	79.7 d-f	16.6 a-c	12.1 g-i	0.4 ef	4.4 d-f
13x101-2-11-2-1-B	3.1 a	1.6 ab	87.2 a	3.8 g	15.9 a	1.1 a	5.7 a
13x101-4-5-2-1-B	2.2 d-g	1.5 a-d	82.6 b-d	8.7 e-g	13.0 b-h	0.7 b-d	4.7 de
13x101-4-9-1-1-B	2.9 ab	1.3 a-f	87.6 a	4.5 g	15.5 a	1.1 a	5.4 ab
13x101-5-7-2-1-B	2.3 d-g	1.5 a-d	84.4 ab	6.5 fg	13.5 b-e	0.9 a-c	4.8 cd
<b>Mean</b>	<b>2.3</b>	<b>1.4</b>	<b>81.0</b>	<b>13.5</b>	<b>12.8</b>	<b>0.5</b>	<b>4.7</b>
<b>LSD<sup>2</sup></b>	<b>0.3</b>	<b>0.4</b>	<b>3.2</b>	<b>5.8</b>	<b>1.0</b>	<b>0.3</b>	<b>0.6</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 25. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Martin County, NC, 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.3 e-j	2.0 e-g	79.4 a-e	5.8 e-g	1.0 b-g	1.8 f-j
Emery	6.4 d-i	2.0 f-j	77.2 d-f	7.9 d-f	1.0 b-g	1.9 b-g
NC-20	6.5 d-g	1.9 h-l	76.8 ef	8.5 de	0.9 g-l	1.8 f-j
Sullivan	7.3 c	1.9 g-k	69.2 h	14.7 b	1.0 c-i	1.8 c-h
Walton	6.4 d-h	2.0 f-h	74.0 fg	10.1 cd	1.0 b-d	2.1 ab
N17045	6.0 h-m	1.8 k-m	79.7 a-e	5.8 fg	0.9 j-l	2.0 b-e
N17047	6.0 i-m	1.8 k-m	80.5 a-c	5.3 fg	0.9 l	1.9 b-g
N18010	6.1 g-l	1.7 m	70.1 a-e	6.5 e-g	0.9 j-l	1.9 b-g
N18012	7.7 bc	1.9 h-l	67.3 h	16.7 b	1.0 c-j	1.7 h-j
N18026	6.7 de	2.4 a	78.5 b-e	6.3 e-g	1.1 a	1.6 j
N18029	6.0 h-m	2.1 c-f	80.3 a-d	5.3 fg	1.0 b-d	1.8 f-j
N18033	6.2 e-k	1.8 j-m	79.1 a-e	6.3 e-g	0.9 h-l	2.0 b-f
N18039	6.0 i-m	1.9 g-l	79.9 a-e	5.7 fg	1.0 f-l	2.0 b-g
N18044	5.9 j-m	2.1 ef	80.0 a-e	5.4 fg	1.0 b-e	1.9 b-g
N18049	6.1 f-k	1.8 i-m	78.9 a-e	6.2 e-g	1.0 e-l	2.0 bc
N18055	5.8 k-m	2.1 d-f	80.8 a-c	4.7 g	1.0 b-e	1.9 b-g
N19003	6.6 d-f	2.2 b-d	78.6 b-e	5.6 fg	1.2 a	1.9 c-h
N19006	6.4 d-i	1.9 h-l	77.6 c-e	6.7 e-g	1.0 b-h	2.2 a
N19009	6.0 h-m	1.9 h-l	78.9 a-e	6.4 e-g	1.0 f-l	2.0 b-d
N19012	6.0 i-m	1.9 h-l	80.1 a-d	5.6 fg	1.0 c-j	1.9 b-g
N19013	6.2 f-k	1.9 h-l	79.3 a-e	6.2 e-g	1.0 d-k	1.9 b-g
N19019	6.1 f-k	1.8 k-m	79.9 a-e	5.6 fg	0.9 i-l	1.9 b-g
N19021	6.1 g-l	1.9 h-k	80.2 a-d	5.2 fg	1.0 f-l	2.0 b-f
N19024	5.9 j-m	2.1 d-f	79.1 a-e	6.4 e-f	1.0 bc	1.8 d-i
N19026	6.0 h-m	2.1 c-e	79.3 a-e	5.8 e-g	1.1 b	1.8 d-i
N19028	6.1 g-l	2.1 d-f	78.4 b-e	7.0 e-g	1.0 b-d	1.8 e-i
N19029	5.6 m	2.0 f-j	81.9 a	4.4 g	1.0 b-i	1.8 g-j
N19030	5.7 lm	2.0 f-i	81.5 ab	4.7 g	1.0 b-i	1.8 c-h
N19033	6.0 h-m	1.8 k-m	80.8 a-c	5.2 fg	0.9 j-l	1.8 c-i
N19034	6.0 h-m	1.8 lm	80.5 a-c	5.3 fg	0.9 kl	2.0 b-g
13x101-2-11-2-1-B	8.4 a	2.3 a-c	62.4 i	19.5 a	1.1 a	1.6 ij
13x101-4-5-2-1-B	6.7 de	2.0 f-i	73.3 g	11.2 c	1.0 b-f	1.8 c-h
13x101-4-9-1-1-B	7.7 b	2.3 ab	67.3 h	14.9 b	1.2 a	2.0 b-f
13x101-5-7-2-1-B	6.8 d	2.0 f-j	72.9 g	11.6 c	1.0 b-g	1.8 d-i
<b>Mean</b>	<b>6.3</b>	<b>2.0</b>	<b>77.2</b>	<b>7.6</b>	<b>1.0</b>	<b>1.9</b>
<b>LSD<sup>2</sup></b>	<b>0.4</b>	<b>0.1</b>	<b>3.3</b>	<b>2.7</b>	<b>0.1</b>	<b>0.2</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 25. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Martin County, NC, 2023<sup>1</sup> (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.4 e-i	1.3 a-i	79.8 i-k	13.9 c-i	13.0 e-h	0.5 g-i	4.7 f-k
Emery	2.4 e-i	1.3 a-h	81.5 g-i	10.6 i-k	13.1 d-g	0.6 e-g	4.7 d-k
NC-20	2.2 f-i	1.4 a-f	82.1 f-h	10.7 h-j	13.0 e-h	0.6 ef	4.6 f-l
Sullivan	2.6 b-e	1.5 a-e	86.5 bc	4.9 lm	14.2 b	1.0 ab	5.0 c-f
Walton	2.7 bc	1.6 a	82.8 e-g	7.5 j-l	13.8 b-d	0.7 de	5.3 bc
N17045	2.4 e-i	1.5 a-c	80.0 i-k	14.1 c-i	12.6 g-k	0.5 g-i	4.8 d-j
N17047	2.2 f-i	1.4 a-h	80.0 i-k	15.4 a-g	12.2 h-k	0.4 g-i	4.5 h-k
N18010	2.4 e-i	1.4 a-f	80.8 h-k	12.3 e-i	12.5 g-k	0.5 f-i	4.7 e-k
N18012	2.5 b-f	1.3 b-i	88.0 ab	4.2 lm	14.4 b	1.2 a	4.8 d-j
N18026	2.4 e-i	1.0 i	79.6 i-k	13.3 d-i	13.6 b-e	0.5 g-i	4.6 g-k
N18029	2.3 e-i	1.1 hi	79.7 i-k	15.5 a-f	12.6 g-k	0.4 hi	4.5 i-l
N18033	2.3 e-i	1.3 a-h	80.5 h-k	12.8 d-i	12.6 g-k	0.5 f-i	4.6 g-k
N18039	2.3 e-i	1.2 b-i	80.2 h-k	14.0 c-i	12.4 g-k	0.5 g-i	4.5 h-l
N18044	2.3 e-i	1.4 a-f	79.5 jk	16.4 a-d	12.8 f-g	0.4 hi	4.8 d-j
N18049	2.5 b-f	1.3 a-h	80.3 h-k	13.1 d-i	12.8 f-g	0.5 f-i	4.8 d-j
N18055	2.3 e-i	1.3 b-i	79.2 jk	17.3 a-c	12.5 g-k	0.4 i	4.6 f-l
N19003	2.8 b	1.2 d-i	78.8 k	14.3 c-h	13.9 bc	0.4 hi	5.1 c-e
N19006	2.7 b-d	1.4 a-f	80.1 h-k	11.9 f-i	13.4 c-f	0.5 f-i	5.2 cd
N19009	2.4 c-h	1.4 a-g	80.5 h-k	12.6 e-i	12.7 f-k	0.5 f-i	4.8 d-j
N19012	2.4 e-i	1.2 f-i	80.1 i-k	14.4 b-g	12.4 g-k	0.5 g-i	4.6 h-l
N19013	2.4 e-i	1.1 g-i	80.5 h-k	13.4 d-i	12.6 g-k	0.5 f-i	4.5 h-k
N19019	2.3 e-i	1.4 a-f	79.8 i-k	14.6 b-g	12.6 g-k	0.4 g-i	4.7 f-l
N19021	2.4 e-i	1.3 b-i	79.6 i-k	15.6 a-e	12.6 g-k	0.4 hi	4.6 f-l
N19024	2.4 e-i	1.3 a-h	80.5 h-k	12.5 e-i	12.7 f-j	0.5 f-i	4.8 d-k
N19026	2.4 c-h	1.4 a-g	79.7 i-k	13.8 c-i	13.0 d-g	0.4 g-i	4.9 d-i
N19028	2.4 d-i	1.2 e-i	81.0 g-j	11.8 g-i	12.8 f-i	0.5 f-h	4.7 f-l
N19029	2.1 hi	1.2 d-i	79.4 jk	18.7 a	11.9 k	0.4 i	4.3 kl
N19030	2.3 e-i	1.1 hi	79.6 i-k	17.9 ab	12.0 jk	0.4 hi	4.4 j-l
N19033	2.1 i	1.2 c-i	80.1 i-k	15.6 a-e	12.1 i-k	0.4 hi	4.3 l
N19034	2.2 g-i	1.4 a-g	80.0 i-k	15.4 a-g	12.2 h-k	0.4 hi	4.5 h-l
13x101-2-11-2-1-B	3.2 a	1.5 a-d	88.7 a	3.3 m	16.5 a	1.2 a	5.8 a
13x101-4-5-2-1-B	2.4 b-g	1.5 ab	83.9 d-f	7.0 kl	13.7 b-e	0.8 cd	5.0 c-g
13x101-4-9-1-1-B	3.3 a	1.2 c-i	85.2 cd	5.1 lm	15.8 a	0.9 bc	5.8 ab
13x101-5-7-2-1-B	2.4 c-h	1.4 a-f	84.3 de	6.3 lm	13.7 b-e	0.9 cd	4.9 d-h
<b>Mean</b>	<b>2.4</b>	<b>1.3</b>	<b>81.2</b>	<b>12.4</b>	<b>13.1</b>	<b>0.6</b>	<b>4.8</b>
<b>LSD<sup>2</sup></b>	<b>0.3</b>	<b>0.3</b>	<b>2.0</b>	<b>3.6</b>	<b>0.8</b>	<b>0.2</b>	<b>0.4</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.



## Fatty Acid Results

**Table 26. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Rocky Mount, NC, 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	5.8 g-k	2.5 c-g	81.1 ab	4.7 cd	1.1 g-k	1.4 e-i
Emery	5.7 i-k	2.6 c-e	81.5 ab	4.3 cd	1.1 e-h	1.4 f-i
NC-20	6.8 cd	2.1 j-k	76.0 cd	9.0 b	1.0 m-o	1.6 a-e
Sullivan	6.7 cd	2.2 g-k	75.4 cd	9.6 b	1.0 j-m	1.5 c-i
Walton	6.3 d-g	2.4 d-i	75.9 cd	8.9 b	1.1 f-j	1.6 a-g
N17045	5.9 f-k	2.2 h-k	81.7 a	4.2 cd	1.0 k-n	1.6 a-e
N17047	5.8 h-k	2.2 i-k	82.1 a	3.9 cd	1.0 l-o	1.6 a-g
N18010	5.8 g-k	2.4 d-i	81.6 ab	4.5 cd	1.1 h-k	1.5 c-i
N18012	7.8 b	2.5 c-h	66.3 e	17.5 a	1.1 e-i	1.3 i
N18026	6.2 e-i	3.0 ab	81.0 ab	3.7 d	1.2 cd	1.4 hi
N18029	5.8 i-k	2.6 c-f	82.5 a	3.5 d	1.1 e-i	1.4 f-i
N18033	5.9 f-k	2.1 j-l	81.9 a	4.1 cd	1.0 m-o	1.7 a-e
N18039	5.7 i-k	2.5 c-h	81.8 a	4.1 cd	1.1 f-j	1.5 e-i
N18044	5.7 i-k	2.3 e-i	82.0 a	3.7 d	1.1 h-k	1.7 a-d
N18049	5.8 g-k	2.0 kl	81.4 ab	4.5 cd	1.0 no	1.7 ab
N18055	5.6 jk	2.5 c-g	82.3 a	3.3 d	1.1 e-h	1.6 b-h
N19003	6.4 d-f	3.3 a	80.5 ab	3.7 d	1.3 ab	1.3 i
N19006	5.8 f-k	2.4 d-i	81.6 ab	3.8 cd	1.1 f-j	1.6 a-g
N19009	5.8 g-k	2.3 f-k	81.6 ab	4.1 cd	1.0 i-k	1.6 b-h
N19012	5.8 i-k	2.3 e-i	81.6 ab	4.1 cd	1.1 g-k	1.6 b-h
N19013	6.3 d-h	2.2 i-l	77.8 bc	7.3 bc	1.0 j-n	1.7 a-d
N19019	5.9 f-k	2.1 i-l	80.4 ab	5.1 cd	1.0 j-n	1.7 ab
N19021	5.9 f-k	2.3 e-i	81.1 ab	4.3 cd	1.1 g-k	1.6 a-f
N19024	5.6 jk	2.7 cd	82.0 a	3.7 d	1.2 d-f	1.5 d-i
N19026	5.6 jk	2.6 c-e	82.0 a	3.8 cd	1.1 e-g	1.4 e-i
N19028	5.8 i-k	2.8 bc	81.2 ab	4.3 cd	1.2 de	1.4 g-i
N19029	5.6 k	2.4 d-i	83.2 a	3.2 d	1.1 fg-k	1.5 d-i
N19030	5.5 k	2.4 d-i	82.7 a	3.5 d	1.0 i-l	1.5 b-h
N19033	6.0 f-k	2.1 j-l	81.2 ab	4.5 cd	1.0 m-o	1.7 a-c
N19034	6.0 f-k	1.9 l	81.2 ab	4.8 cd	0.9 o	1.8 a
13x101-2-11-2-1-B	8.6 a	3.0 ab	60.9 f	20.0 a	1.4 ab	1.5 d-i
13x101-4-5-2-1-B	6.6 c-e	2.8 bc	74.6 cd	8.9 b	1.2 cd	1.7 a-e
13x101-4-9-1-1-B	7.0 c	3.3 a	72.4 d	10.5 b	1.4 a	1.4 e-i
13x101-5-7-2-1-B	6.1 e-j	3.2 a	80.6 ab	3.5 d	1.3 bc	1.5 d-i
<b>Mean</b>	<b>6.1</b>	<b>2.5</b>	<b>79.4</b>	<b>5.8</b>	<b>1.1</b>	<b>1.5</b>
<b>LSD<sup>2</sup></b>	<b>0.5</b>	<b>0.3</b>	<b>3.9</b>	<b>3.5</b>	<b>0.1</b>	<b>0.2</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 26. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Rocky Mount, NC, 2023<sup>1</sup> (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.1 g-j	1.3 c-h	79.1 e-j	17.1 c-e	12.7 h-n	0.4 c-e	4.4 g-j
Emery	2.0 g-j	1.3 c-h	78.6 f-j	19.4 a-d	12.8 h-m	0.3 de	4.4 f-l
NC-20	2.2 d-j	1.3 a-g	82.3 bc	8.9 gh	13.4 e-h	0.7 b	4.5 e-l
Sullivan	2.1 d-j	1.4 a-f	82.6 b	8.1 gh	13.5 e-g	0.7 b	4.5 d-j
Walton	2.3 d-f	1.5 ab	82.0 b-d	10.0 e-h	13.6 ef	0.6 b	4.9 cd
N17045	2.1 e-j	1.3 d-h	78.8 e-j	19.7 a-d	12.4 k-n	0.3 de	4.4 h-j
N17047	2.0 h-j	1.4 a-e	78.6 f-j	21.0 a-d	12.4 k-n	0.3 de	4.4 f-j
N18010	2.1 d-j	1.0 i	79.2 e-j	18.3 b-d	12.4 k-n	0.4 c-e	4.2 kl
N18012	2.2 d-h	1.2 e-h	88.4 a	3.8 h	14.9 c	1.2 a	4.6 d-j
N18026	2.2 d-h	1.3 d-h	77.2 h-j	22.3 a-c	13.9 de	0.3 e	4.7 d-g
N18029	2.1 f-j	1.1 g-i	78.1 g-j	23.7 a-c	12.6 j-n	0.3 e	4.3 i-l
N18033	2.0 h-j	1.4 a-d	78.8 e-j	20.0 a-d	12.4 k-n	0.3 de	4.4 f-l
N18039	2.0 ij	1.3 a-g	78.6 f-j	21.2 a-d	12.6 i-n	0.3 de	4.4 g-j
N18044	2.2 d-i	1.4 a-f	78.2 f-j	22.3 a-c	12.7 i-n	0.3 e	4.7 d-i
N18049	2.2 d-j	1.4 a-d	79.2 d-j	18.3 b-d	12.3 l-n	0.4 c-e	4.6 d-j
N18055	2.2 d-j	1.4 a-g	77.7 h-j	25.1 ab	12.8 h-m	0.3 e	4.7 d-i
N19003	2.3 de	1.2 e-h	76.7 ij	21.7 a-c	14.5 cd	0.3 e	4.9 cd
N19006	2.2 d-j	1.4 a-f	78.1 g-j	21.4 a-c	12.9 g-l	0.3 e	4.7 d-h
N19009	2.2 d-j	1.3 a-g	78.6 f-j	20.0 a-d	12.7 i-n	0.3 de	4.6 d-j
N19012	2.2 d-i	1.3 a-g	78.5 f-j	20.0 a-d	12.7 h-n	0.3 de	4.6 d-j
N19013	2.4 d	1.4 a-f	80.8 b-g	14.0 d-g	13.3 e-i	0.5 b-d	4.8 c-e
N19019	2.2 d-j	1.5 a-c	79.4 d-i	17.3 cd	12.7 i-n	0.4 c-e	4.7 d-i
N19021	2.3 d-g	1.4 a-e	78.4 f-j	19.3 a-d	13.0 f-k	0.3 de	4.8 d-f
N19024	2.1 e-j	1.3 a-h	78.1 g-j	22.5 a-c	12.8 h-m	0.3 e	4.6 d-j
N19026	2.1 e-j	1.3 c-h	78.3 f-j	21.5 a-c	12.8 h-n	0.3 e	4.5 d-k
N19028	2.1 e-j	1.3 a-h	78.4 f-j	19.3 a-d	13.1 f-j	0.3 de	4.6 d-j
N19029	2.0 j	1.1 hi	78.3 f-j	25.6 a	12.1 n	0.3 e	4.1 l
N19030	2.1 f-j	1.2 d-h	78.4 f-j	23.7 a-c	12.3 mn	0.3 e	4.3 h-l
N19033	2.1 d-j	1.4 a-f	79.0 e-j	18.5 a-d	12.6 j-n	0.4 de	4.5 e-k
N19034	2.1 e-j	1.3 b-h	79.6 c-h	16.9 c-f	12.2 n	0.4 c-e	4.3 j-l
13x101-2-11-2-1-B	3.2 a	1.5 a	88.1 a	3.1b h	17.7 a	1.1 a	6.1 a
13x101-4-5-2-1-B	2.7 bc	1.4 a-d	80.9 b-f	9.8 f-h	14.8 c	0.6 bc	5.4 b
13x101-4-9-1-1-B	2.8 b	1.2 g-i	81.6 b-e	7.4 gh	15.7 b	0.7 b	5.4 b
13x101-5-7-2-1-B	2.6 c	1.2 f-h	76.6 j	23.6 a-c	14.4 cd	0.2 e	5.1 bc
<b>Mean</b>	<b>2.2</b>	<b>1.3</b>	<b>79.6</b>	<b>17.8</b>	<b>13.2</b>	<b>0.4</b>	<b>4.7</b>
<b>LSD<sup>2</sup></b>	<b>0.2</b>	<b>0.2</b>	<b>2.8</b>	<b>7.2</b>	<b>0.6</b>	<b>0.2</b>	<b>0.3</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 27. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, Dig 1 2023.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.2 f-i	2.6 g-j	79.6 c-i	5.4 f-i	1.1 f-h	1.5 c-h
Emery	6.2 f-j	3.1 b-e	79.0 e-i	5.8 d-g	1.3 c-e	1.3 lm
NC-20	6.6 cd	2.5 ik	77.1 ij	7.8 c-e	1.1 hi	1.4 f-i
Sullivan	6.9 bc	2.9 c-h	74.3 jk	9.6 bc	1.3 c-e	1.4 h-l
Walton	5.9 i-l	2.8 d-j	80.6 a-h	4.1 g-j	1.3 cd	1.6 a
N17045	5.9 i-l	2.4 jk	81.7 a-e	3.6 g-j	1.1 g-i	1.6 a-d
N17047	6.3 d-i	2.5 h-k	79.6 c-i	5.7 e-g	1.1 gh	1.5 b-h
N18010	6.2 f-j	2.5 ik	80.2 b-h	4.6 f-j	1.1 f-h	1.6 a
N18012	7.1 ab	2.6 g-k	72.0 k	12.1 a	1.2 c-h	1.3 i-l
N18026	6.4 d-g	3.2 bc	79.4 c-i	4.8 f-j	1.3 bc	1.3 k-m
N18029	6.0 h-l	2.9 c-g	81.1 a-g	4.1 g-j	1.2 c-g	1.3 j-m
N18033	6.3 d-i	2.8 d-i	81.2 a-f	3.5 g-j	1.2 c-g	1.4 e-i
N18039	5.8 j-l	2.7 f-j	82.7 ab	3.0 ij	1.2 c-h	1.4 d-h
N18044	6.2 f-i	2.6 g-k	80.3 b-h	4.5 f-j	1.2 d-h	1.6 a
N18049	6.1 f-k	2.7 g-j	81.1 a-h	4.0 g-j	1.2 c-h	1.5 a-f
N18055	6.0 h-l	2.8 c-h	81.6 a-e	3.6 g-j	1.2 c-g	1.5 c-h
N19003	6.6 c-e	3.3 b	78.2 g-i	5.3 f-j	1.4 b	1.4 h-l
N19006	6.2 f-j	2.7 e-j	81.0 a-h	3.6 g-j	1.2 c-h	1.6 ab
N19009	5.9 i-l	2.6 g-k	81.1 a-h	4.2 g-j	1.2 d-h	1.6 a-d
N19012	6.2 f-j	2.6 g-k	81.2 a-f	3.6 g-j	1.2 d-h	1.5 a-g
N19013	6.4 d-f	2.6 g-k	78.2 hi	6.7 d-f	1.2 e-h	1.4 f-j
N19019	6.0 g-k	2.6 g-k	82.0 a-d	3.5 g-j	1.1 f-h	1.4 f-i
N19021	6.0 h-l	2.6 g-k	82.1 a-d	3.2 h-j	1.2 d-h	1.5 d-h
N19024	6.0 h-l	2.8 d-j	80.7 a-h	4.4 f-j	1.2 c-g	1.4 g-k
N19026	6.0 h-l	2.9 c-g	80.7 a-h	4.3 g-j	1.3 c-f	1.4 h-l
N19028	5.9 i-l	2.8 d-j	81.4 a-f	4.0 g-j	1.2 d-h	1.4 h-l
N19029	5.7 kl	2.7 e-j	82.3 a-c	3.2 h-j	1.2 c-h	1.4 e-i
N19030	5.6 l	2.7 g-j	83.3 a	2.9 j	1.1 f-h	1.4 h-l
N19033	6.2 e-i	2.2 k	81.8 a-e	4.0 g-j	1.0 i	1.6 a-c
N19034	6.2 f-i	2.6 g-k	81.4 a-f	3.9 g-j	1.1 e-h	1.5 a-g
13x101-2-11-2-1-B	7.3 a	3.8 a	71.9 k	10.5 ab	1.5 a	1.2 m
13x101-4-5-2-1-B	6.4 d-h	3.1 b-f	78.4 f-i	5.5 e-h	1.3 bc	1.5 a-e
13x101-4-9-1-1-B	7.0 a-c	3.0 b-g	74.4 jk	8.7 b-d	1.3 bc	1.5 a-h
13x101-5-7-2-1-B	6.4 d-g	3.2 b-d	79.2 d-i	4.6 f-j	1.4 b	1.5 b-h
<b>Mean</b>	<b>6.2</b>	<b>2.8</b>	<b>79.7</b>	<b>5.1</b>	<b>1.2</b>	<b>1.5</b>
<b>LSD<sup>2</sup></b>	<b>0.4</b>	<b>0.4</b>	<b>3.0</b>	<b>2.4</b>	<b>0.1</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 27. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, dig 1 2023.**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.4 d-i	1.2 a-c	78.9 d-g	15.0 f-i	13.5 f-h	0.4 e-i	4.7 d-i
Emery	2.2 g-l	1.2 bc	79.0 d-f	14.9 f-i	13.9 c-f	0.4 e-h	4.6 e-i
NC-20	2.2 f-l	1.3 a-c	80.9 bc	9.9 i-k	13.7 fg	0.6 b-d	4.6 f-j
Sullivan	2.4 c-f	1.2 a-c	81.7 b	7.7 jk	14.6 bc	0.7 b	4.9 a-f
Walton	2.4 b-f	1.3 a-c	77.7 e-h	20.7 b-g	13.7 e-g	0.3 g-j	5.0 a-e
N17045	2.4 d-i	1.3 a-c	77.8 e-h	22.6 a-e	13.1 f-j	0.3 g-j	4.8 d-i
N17047	2.2 g-l	1.2 bc	79.4 c-e	14.1 g-j	13.3 f-i	0.4 d-g	4.6 f-j
N18010	2.4 c-f	1.5 a	78.1 d-h	17.9 d-h	13.6 f-h	0.3 g-j	5.0 a-d
N18012	2.4 c-g	1.2 bc	84.0 a	6.5 k	14.5 b-d	0.8 a	4.8 b-h
N18026	2.4 d-h	1.2 bc	77.6 f-h	16.7 e-i	14.5 b-e	0.3 g-j	4.9 b-h
N18029	2.1 j-m	1.2 bc	77.9 e-h	21.2 b-f	13.4 f-i	0.3 g-j	4.5 f-j
N18033	2.3 e-k	1.2 a-c	77.0 h	23.4 a-e	13.9 c-g	0.3 ij	4.8 c-i
N18039	2.1 k-m	1.1 c	77.4 f-h	27.6 ab	12.9 h-j	0.2 j	4.4 i-k
N18044	2.5 b-e	1.3 a-c	78.0 e-h	19.2 c-g	13.7 fg	0.3 g-j	4.9 a-f
N18049	2.4 d-i	1.1 bc	77.9 e-h	20.5 c-g	13.4 f-i	0.3 g-h	4.7 d-i
N18055	2.2 h-m	1.1 bc	77.6 f-h	23.2 a-e	13.3 f-i	0.3 h-j	4.5 g-k
N19003	2.6 a-d	1.2 bc	77.5 f-h	16.7 e-i	15.1 b	0.3 f-j	5.2 ab
N19006	2.4 d-i	1.3 ab	77.2 gh	22.8 a-e	13.8 d-g	0.3 ij	4.9 a-g
N19009	2.3 e-k	1.2 a-c	78.2 d-h	19.5 c-g	13.2 f-i	0.3 g-j	4.7 d-i
N19012	2.4 c-f	1.3 a-c	77.4 f-h	22.4 a-e	13.6 f-h	0.3 h-j	4.8 b-h
N19013	2.3 e-k	1.2 bc	80.0 b-d	11.6 h-k	13.7 fg	0.5 c-f	4.7 d-i
N19019	2.2 i-m	1.2 bc	77.7 e-h	23.9 a-d	13.1 g-j	0.3 h-j	4.5 h-k
N19021	2.3 e-k	1.2 a-c	77.3 f-h	25.7 a-c	13.3 f-i	0.2 j	4.7 d-i
N19024	2.3 e-k	1.2 bc	78.1 d-h	18.6 d-g	13.5 f-h	0.3 g-j	4.7 d-i
N19026	2.3 d-j	1.2 bc	77.9 e-h	18.8 d-g	13.7 fg	0.3 g-j	4.8 b-i
N19028	2.2 h-m	1.1 bc	78.1 d-h	20.3 c-g	13.2 f-i	0.3 g-j	4.5 g-k
N19029	2.3 e-k	1.2 bc	77.4 f-h	25.9 a-c	13.1 f-j	0.2 j	4.7 d-i
N19030	2.0 m	1.0 c	77.8 e-h	28.5 a	12.4 j	0.2 j	4.1 k
N19033	2.1 lm	1.1 bc	78.5 d-h	20.5 c-g	12.7 ij	0.3 g-j	4.2 jk
N19034	2.3 e-k	1.1 c	77.9 e-h	21.0 b-f	13.3 f-i	0.3 g-j	4.5 g-k
13x101-2-11-2-1-B	2.7 a	1.1 bc	81.0 bc	7.0 k	16.4 a	0.6 bc	5.3 a
13x101-4-5-2-1-B	2.6 a-c	1.2 bc	78.1 d-h	14.5 f-j	14.6 bc	0.4 f-j	5.2 a-c
13x101-4-9-1-1-B	2.7 a	1.3 a-c	80.2 b-d	9.0 i-k	15.3 b	0.6 b-e	5.4 a
13x101-5-7-2-1-B	2.6 ab	1.1 bc	77.3 f-h	17.5 d-h	14.7 b	0.3 g-j	5.2 ab
<b>Mean</b>	<b>2.3</b>	<b>1.2</b>	<b>78.5</b>	<b>18.4</b>	<b>13.8</b>	<b>0.4</b>	<b>4.8</b>
<b>LSD<sup>2</sup></b>	<b>0.2</b>	<b>0.2</b>	<b>1.8</b>	<b>6.9</b>	<b>0.8</b>	<b>0.2</b>	<b>0.4</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 28. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, dig 2 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.3 b-f	2.6 f-j	78.0 c-g	7.1 b-e	1.2 e-i	1.5 c-g
Emery	6.4 b-e	3.0 b-d	76.9 e-h	7.1 b-d	1.3 c-e	1.4 f-i
NC-20	7.0 ab	2.5 g-j	74.8 gh	9.8 b	1.1 g-i	1.4 e-h
Sullivan	6.5 b-d	2.7 c-i	77.3 d-h	7.6 bc	1.2 d-h	1.5 d-g
Walton	5.9 e-g	2.6 f-j	80.0 a-e	4.5 d-g	1.2 d-h	1.8 a
N17045	5.9 e-g	2.4 ij	81.3 a-c	3.7 fg	1.1 hi	1.6 b-d
N17047	6.0 d-g	2.3 j	80.9 a-c	4.3 e-g	1.1 i	1.6 bc
N18010	6.2 c-g	2.5 g-j	79.8 a-e	5.2 c-g	1.2 f-i	1.5 b-e
N18012	7.5 a	2.7 c-h	69.1 i	14.5 a	1.2 d-h	1.3 i
N18026	6.4 b-e	3.3 a	79.2 b-f	5.1 c-g	1.4 a-c	1.3 hi
N18029	5.8 fg	2.9 b-e	81.3 a-c	3.5 fg	1.3 b-d	1.4 d-h
N18033	6.1 d-g	2.4 ij	81.8 a-c	3.4 fg	1.1 hi	1.5 b-f
N18039	5.8 fg	2.8 c-g	82.6 ab	2.8 g	1.2 d-h	1.4 f-i
N18044	5.8 g	2.7 d-j	82.0 a-c	3.0 fg	1.2 d-h	1.6 b
N18049	6.3 b-g	2.7 c-j	77.7 c-h	6.5 b-f	1.2 d-h	1.5 b-g
N18055	6.2 c-g	2.7 c-g	79.1 b-f	5.4 c-g	1.2 d-g	1.5 b-f
N19003	6.6 bc	3.3 a	80.2 a-e	3.8 fg	1.4 a-c	1.3 i
N19006	6.1 c-g	2.8 c-g	80.8 a-c	4.0 fg	1.2 d-h	1.5 b-f
N19009	6.1 c-g	2.6 e-j	80.4 a-d	4.8 c-g	1.2 d-i	1.5 b-f
N19012	6.0 d-g	2.8 c-g	80.8 a-c	3.7 fg	1.2 d-g	1.5 d-g
N19013	6.2 c-g	2.8 c-g	80.5 a-d	4.6 d-g	1.2 d-h	1.4 d-g
N19019	6.1 c-g	2.5 g-j	81.5 a-c	3.8 fg	1.1 g-i	1.5 b-g
N19021	6.1 c-g	2.7 d-j	81.3 a-c	3.5 fg	1.2 d-h	1.5 b-f
N19024	5.9 e-g	2.8 b-f	80.3 a-e	4.9 c-g	1.3 c-f	1.4 d-h
N19026	6.1 c-g	2.8 b-f	80.4 a-d	5.0 c-g	1.2 d-h	1.3 g-i
N19028	5.9 e-g	2.8 b-f	81.3 a-c	4.0 fg	1.2 d-h	1.3 g-i
N19029	5.6 g	3.0 a-c	82.5 a-c	3.0 fg	1.2 c-g	1.3 g-i
N19030	5.6 g	2.7 c-g	82.8 a	3.0 fg	1.2 d-i	1.4 e-h
N19033	6.0 d-g	2.5 g-j	81.8 a-c	3.5 fg	1.1 g-i	1.5 b-e
N19034	6.2 c-g	2.4 h-j	81.6 a-c	4.0 fg	1.1 i	1.5 b-e
13x101-2-11-2-1-B	7.0 ab	3.4 a	73.2 hi	9.7 b	1.4 a	1.3 g-i
13x101-4-5-2-1-B	6.0 d-g	3.1 ab	80.6 a-d	3.8 fg	1.4 a-c	1.5 b-g
13x101-4-9-1-1-B	6.6 bc	3.1 ab	76.1 f-h	6.9 b-e	1.4 ab	1.5 d-g
13x101-5-7-2-1-B	6.3 c-g	3.4 a	80.3 a-e	3.8 fg	1.4 a	1.3 g-i
<b>Mean</b>	<b>6.2</b>	<b>2.8</b>	<b>79.7</b>	<b>5.1</b>	<b>1.2</b>	<b>1.5</b>
<b>LSD<sup>2</sup></b>	<b>0.5</b>	<b>0.3</b>	<b>3.4</b>	<b>2.8</b>	<b>0.1</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 28. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, dig 2 2023<sup>1</sup>, (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.3 d-h	1.0 a-d	80.5 b-d	11.0 f-h	13.4 e-g	0.5 b-e	4.5 b-e
Emery	2.4 a-f	1.5 a-c	79.6 c-e	13.9 e-g	14.6 b-d	0.5 c-f	5.2 a-c
NC-20	2.2 f-h	1.2 a-d	82.3 b	8.1 gh	14.0 c-f	0.7 b	4.6 b-e
Sullivan	2.4 c-h	1.0 b-d	80.7 bc	10.3 f-h	13.7 d-g	0.6 b-d	4.5 b-e
Walton	2.6 a-c	1.5 a-c	78.0 e-h	17.8 b-g	13.7 c-g	0.3 f-h	5.3 ab
N17045	2.4 b-f	1.6 a	77.5 e-h	22.2 a-e	13.5 e-g	0.3 gh	5.2 a-c
N17047	2.2 f-h	1.6 a	78.3 d-h	18.8 b-f	13.2 fg	0.3 f-h	4.9 b-e
N18010	2.4 c-g	1.3 a-d	78.8 c-f	17.6 b-g	13.5 e-g	0.4 d-h	4.8 b-e
N18012	2.3 f-h	1.5 ab	85.5 a	4.8 h	15.2 ab	1.0 a	5.0 b-d
N18026	2.4 c-g	1.0 b-d	78.0 e-h	17.4 b-g	14.4 b-e	0.4 e-h	4.7 b-e
N18029	2.4 c-h	1.4 a-d	77.1 f-h	23.4 a-d	13.7 c-g	0.3 gh	5.0 b-d
N18033	2.2 f-h	1.5 ab	77.4 e-h	24.4 a-c	13.3 e-g	0.3 gh	4.8 b-e
N18039	2.1 h	1.3 a-d	77.0 f-h	29.2 a	13.2 e-g	0.2 h	4.6 b-e
N18044	2.3 c-h	1.5 a-c	77.0 f-h	27.6 ab	13.4 e-g	0.2 h	5.0 b-d
N18049	2.3 c-h	1.7 a	79.3 c-f	12.0 e-h	14.3 b-f	0.5 c-g	5.3 a-c
N18055	2.3 d-h	1.5 ab	78.6 d-g	15.5 d-g	14.0 c-f	0.4 d-h	5.0 b-d
N19003	2.3 c-h	1.1 a-d	76.7 h	22.0 a-e	14.7 a-c	0.3 gh	4.8 b-e
N19006	2.4 c-h	1.1 a-d	77.7 e-h	20.0 b-e	13.6 d-g	0.3 gh	4.7 b-e
N19009	2.2 f-h	1.1 a-d	78.6 d-g	16.8 c-g	13.3 e-g	0.4 e-h	4.6 b-e
N19012	2.4 c-h	1.6 a	77.1 f-h	21.7 a-e	14.0 c-f	0.3 gh	5.2 a-c
N19013	2.2 f-h	1.2 a-d	78.2 d-h	17.7 b-g	13.5 e-g	0.3 f-h	4.6 b-e
N19019	2.1 gh	1.4 a-d	77.8 e-h	22.1 a-e	13.2 fg	0.3 gh	4.6 b-e
N19021	2.4 c-h	1.3 a-d	77.2 e-h	23.0 a-d	13.6 d-g	0.3 gh	4.8 b-e
N19024	2.3 e-h	1.1 a-d	78.6 d-g	16.6 c-g	13.4 e-g	0.4 e-h	4.6 b-e
N19026	2.2 f-h	0.9 d	78.8 c-f	18.6 b-f	13.3 e-g	0.4 d-h	4.4 de
N19028	2.2 f-h	1.2 a-d	77.9 e-h	20.8 a-e	13.3 e-g	0.3 gh	4.6 b-e
N19029	2.1 f-h	1.1 a-d	77.2 e-h	27.8 ab	13.2 e-g	0.2 gh	4.5 b-e
N19030	2.1 h	1.2 a-d	77.5 e-h	27.4 ab	12.8 g	0.2 gh	4.4 c-e
N19033	2.1 f-h	1.4 a-d	77.7 e-h	23.5 a-d	13.1 fg	0.3 gh	4.6 b-e
N19034	2.1 h	1.1 a-d	78.2 d-h	20.8 a-e	12.9 g	0.3 f-h	4.3 e
13x101-2-11-2-1-B	2.9 a	1.2 a-d	80.7 b-d	7.5 gh	15.8 a	0.6 bc	5.4 ab
13x101-4-5-2-1-B	2.6 a-d	1.1 a-d	77.1 f-h	21.5 a-e	14.1 c-f	0.3 gh	5.1 bc
13x101-4-9-1-1-B	2.7 ab	1.7 a	78.6 d-g	11.1 f-h	15.5 ab	0.4 c-g	5.8 a
13x101-5-7-2-1-B	2.6 a-e	0.9 cd	76.7 gh	21.4 a-e	14.6 b-d	0.3 gh	4.9 b-e
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>78.5</b>	<b>18.7</b>	<b>13.8</b>	<b>0.4</b>	<b>4.8</b>
<b>LSD<sup>2</sup></b>	<b>0.3</b>	<b>0.6</b>	<b>2.1</b>	<b>8.7</b>	<b>1.0</b>	<b>0.2</b>	<b>0.7</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 29. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Blackville, SC, 2023<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.3 e-g	2.6 j-m	78.8 hi	6.2 d-f	1.2 g-j	1.5 e-i
Emery	6.3 e-g	3.0 c-f	78.0 ij	6.5 de	1.3 c	1.3 k-n
NC-20	6.8 b	2.5 k-m	75.9 jk	8.8 bc	1.1 i-k	1.4 f-k
Sullivan	6.7 bc	2.8 g-j	75.8 k	8.6 bc	1.2 c-f	1.4 g-l
Walton	5.9 h-k	2.7 g-k	80.3 c-h	4.3 g-k	1.2 c-f	1.7 a
N17045	5.9 h-k	2.4 lm	81.5 a-e	3.6 h-k	1.1 jk	1.6 b-d
N17047	6.1 e-h	2.4 lm	80.2 c-h	5.0 e-h	1.1 jk	1.5 b-e
N18010	6.2 e-h	2.5 k-m	80.0 c-i	4.9 e-i	1.1 g-k	1.6 bc
N18012	7.3 a	2.6 i-l	70.5 l	13.3 a	1.2 c-g	1.3 no
N18026	6.4 c-e	3.2 bc	79.3 f-i	4.9 e-i	1.3 b	1.3 m-o
N18029	5.9 h-k	2.9 d-g	81.2 a-g	3.8 h-k	1.3 cd	1.4 i-n
N18033	6.2 e-h	2.6 i-l	81.5 a-e	3.4 h-k	1.2 e-j	1.5 c-h
N18039	5.8 i-k	2.7 g-j	82.6 ab	2.9 k	1.2 c-g	1.4 g-l
N18044	6.0 g-j	2.6 i-l	81.1 a-g	3.7 h-k	1.2 c-i	1.6 ab
N18049	6.2 e-h	2.7 g-k	80.0 c-i	4.8 e-j	1.2 c-h	1.5 b-g
N18055	6.1 e-i	2.8 g-j	80.4 c-h	4.5 f-k	1.2 c-f	1.5 c-h
N19003	6.6 b-d	3.3 b	79.2 g-i	4.5 f-k	1.4 b	1.3 l-o
N19006	6.1 e-h	2.8 g-j	80.9 a-h	3.8 h-k	1.2 c-g	1.5 b-e
N19009	6.0 g-j	2.6 i-l	80.7 b-h	4.5 g-k	1.2 e-j	1.5 b-e
N19012	6.1 e-i	2.7 g-k	81.0 a-g	3.7 h-k	1.2 c-h	1.5 c-h
N19013	6.3 d-f	2.7 h-k	79.3 g-i	5.6 e-g	1.2 e-j	1.4 f-j
N19019	6.1 f-i	2.5 k-m	81.8 a-d	3.6 h-k	1.2 h-k	1.5 e-i
N19021	6.1 f-i	2.6 i-l	81.7 a-d	3.4 h-k	1.2 d-j	1.5 c-h
N19024	5.9 h-k	2.8 e-j	80.5 b-h	4.6 f-k	1.2 c-e	1.4 g-k
N19026	6.0 f-h	2.9 d-h	80.5 b-h	4.6 f-k	1.2 c-f	1.3 j-n
N19028	5.9 h-k	2.8 f-j	81.4 a-g	4.0 g-k	1.2 c-h	1.4 j-n
N19029	5.7 jk	2.9 d-i	82.4 a-c	3.1 i-k	1.2 c-g	1.4 g-m
N19030	5.6 k	2.7 g-k	83.0 a	3.0 jk	1.2 f-j	1.4 h-m
N19033	6.1 e-i	2.4 m	81.8 a-d	3.8 h-k	1.1 k	1.6 b-d
N19034	6.2 e-h	2.5 k-m	81.5 a-f	3.9 g-k	1.1 jk	1.5 b-f
13x101-2-11-2-1-B	7.2 a	3.6 a	72.3 l	10.3 b	1.5 a	1.2 o
13x101-4-5-2-1-B	6.2 e-h	3.1 b-d	79.5 e-i	4.6 f-k	1.3 b	1.5 b-f
13x101-4-9-1-1-B	6.8 b	3.1 b-e	75.5 k	7.6 cd	1.4 b	1.5 d-i
13x101-5-7-2-1-B	6.3 d-f	3.3 b	79.8 d-i	4.2 g-k	1.4 b	1.4 g-l
<b>Mean</b>	<b>6.2</b>	<b>2.8</b>	<b>79.7</b>	<b>5.1</b>	<b>1.2</b>	<b>1.5</b>
<b>LSD<sup>2</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>2.2</b>	<b>1.8</b>	<b>0.1</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 29. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Blackville, SC, 2023<sup>1</sup> (cont.).**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.3 d-g	1.1 b-f	79.7 cd	13.0 l-n	13.5 i-m	0.5 de	4.6 e-k
Emery	2.3 d-g	1.3 a-f	79.3 de	14.4 k-m	14.2 d-g	0.4 d-f	4.9 c-g
NC-20	2.2 e-i	1.2 a-f	81.6 b	9.0 no	13.9 e-i	0.6 b	4.6 f-k
Sullivan	2.4 c-e	1.1 c-f	81.2 b	9.0 no	14.2 d-h	0.6 bc	4.7 d-j
Walton	2.5 bc	1.4 a-d	77.8 f-i	19.2 d-k	13.7 g-k	0.3 g-k	5.1 bc
N17045	2.4 c-e	1.4 ab	77.6 g-i	22.4 c-h	13.3 i-m	0.3 h-k	5.0 b-f
N17047	2.2 f-j	1.4 a-c	78.9 d-g	16.4 j-l	13.3 j-m	0.4 d-h	4.7 d-j
N18010	2.4 c-e	1.4 a-e	78.5 d-h	17.7 g-l	13.6 i-l	0.4 e-i	4.9 c-g
N18012	2.3 d-g	1.4 a-e	84.7 a	5.7 o	14.9 bc	0.9 a	4.9 c-h
N18026	2.4 c-e	1.1 ef	77.8 g-i	17.0 i-l	14.4 c-e	0.3 f-j	4.8 c-i
N18029	2.2 e-i	1.3 a-f	77.5 hi	22.3 c-h	13.6 h-l	0.3 h-k	4.8 c-j
N18033	2.2 e-i	1.4 a-d	77.2 hi	23.9 a-e	13.6 h-l	0.3 i-k	4.8 c-i
N18039	2.1 ij	1.2 b-f	77.2 hi	28.4 a	13.1 l-n	0.2 k	4.5 h-k
N18044	2.4 c-e	1.4 a-d	77.5 hi	23.4 a-f	13.6 i-l	0.3 h-k	5.0 b-f
N18049	2.3 d-g	1.3 a-f	78.3 e-i	17.7 g-l	13.7 g-l	0.4 e-j	4.9 c-h
N18055	2.2 e-i	1.3 a-f	78.1 e-i	19.3 d-k	13.6 g-l	0.3 g-k	4.8 c-j
N19003	2.4 b-d	1.2 b-f	77.1 i	19.3 d-k	14.9 bc	0.3 h-k	5.0 b-e
N19006	2.4 d-f	1.2 a-f	77.4 hi	21.4 c-j	13.7 g-k	0.3 h-k	4.8 c-i
N19009	2.3 d-i	1.2 b-f	78.4 e-h	18.2 f-l	13.2 j-m	0.3 f-j	4.6 e-k
N19012	2.4 c-e	1.4 ab	77.2 hi	22.0 c-i	13.8 f-j	0.3 h-k	5.0 b-e
N19013	2.3 d-i	1.2 b-f	79.1 d-f	14.6 k-m	13.6 h-l	0.4 d-g	4.6 e-k
N19019	2.1 h-j	1.3 a-f	77.8 g-i	23.0 b-g	13.1 k-n	0.3 h-k	4.5 g-k
N19021	2.3 d-g	1.3 a-f	77.3 hi	24.4 a-d	13.5 i-m	0.3 i-k	4.8 c-j
N19024	2.3 d-h	1.1 b-f	78.4 e-h	17.6 h-l	13.4 i-m	0.3 f-j	4.7 e-j
N19026	2.3 d-h	1.0 f	78.3 e-h	18.7 e-k	13.5 i-m	0.3 f-j	4.6 f-k
N19028	2.2 g-j	1.2 b-f	78.0 f-h	20.6 d-j	13.3 i-m	0.3 h-k	4.6 g-k
N19029	2.2 e-i	1.2 b-f	77.3 hi	26.6 a-c	13.1 k-n	0.2 jk	4.6 e-k
N19030	2.0 j	1.1 d-f	77.7 g-i	27.9 ab	12.6 n	0.2 jk	4.3 k
N19033	2.1 ij	1.2 a-f	78.1 e-i	22.0 c-i	12.9 mn	0.3 h-k	4.4 ik
N19034	2.2 f-i	1.1 d-f	78.0 e-i	20.9 c-j	13.1 l-n	0.3 h-k	4.4 jk
13x101-2-11-2-1-B	2.7 a	1.2 b-f	80.9 bc	7.2 o	16.2 a	0.6 b	5.4 ab
13x101-4-5-2-1-B	2.6 ab	1.2 b-f	77.6 g-i	18.0 g-l	14.4 c-f	0.3 g-k	5.1 b-d
13x101-4-9-1-1-B	2.7 a	1.5 a	79.2 d-f	10.2 m-o	15.5 b	0.5 cd	5.6 a
13x101-5-7-2-1-B	2.6 ab	1.0 f	77.0 i	19.4 d-k	14.5 cd	0.3 h-k	5.0 b-e
<b>Mean</b>	<b>2.3</b>	<b>1.2</b>	<b>78.5</b>	<b>18.6</b>	<b>13.8</b>	<b>0.4</b>	<b>4.8</b>
<b>LSD<sup>2</sup></b>	<b>0.2</b>	<b>0.3</b>	<b>1.3</b>	<b>5.4</b>	<b>0.6</b>	<b>0.1</b>	<b>0.4</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.



## Fatty Acid Results

**Table 30. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated averaged across all locations, 2023.<sup>1</sup>**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.1 h-k	2.4 d-h	79.5 d-f	5.8 f-i	1.1 d-i	1.6 d-k
Emery	6.1 g-j	2.5 c-g	79.0 e-g	6.2 f-h	1.1 d-h	1.6 g-k
NC-20	6.6 d	2.1 h-j	77.0 hi	8.2 e	1.0 j-m	1.6 c-j
Sullivan	6.9 c	2.3 e-j	73.2 j	11.2 d	1.1 d-i	1.6 e-k
Walton	6.3 f-i	2.3 d-h	76.0 i	8.4 e	1.1 c-f	1.8 ab
N17045	5.9 j-p	2.1 ij	81.1 a-d	4.5 ik	1.0 k-m	1.7 a-e
N17047	5.9 j-p	2.1 ij	80.9 a-d	4.7 h-k	1.0 lm	1.7 a-e
N18010	6.0 j-o	2.1 h-j	79.9 b-f	5.5 f-j	1.0 g-m	1.7 a-h
N18012	7.6 b	2.3 e-j	67.8 k	16.0 b	1.1 d-i	1.5 kl
N18026	6.3 e-g	2.9 a	80.0 b-f	4.7 h-k	1.2 ab	1.4 l
N18029	5.9 m-p	2.5 b-e	81.3 a-c	4.2 i-k	1.1 c-e	1.5 i-l
N18033	6.1 i-m	2.2 h-j	80.9 a-d	4.5 i-k	1.0 h-m	1.7 a-h
N18039	5.8 p-r	2.3 e-i	81.6 ab	4.2 i-k	1.1 d-k	1.6 b-j
N18044	5.8 n-q	2.3 e-i	81.2 a-d	4.1 jk	1.1 d-i	1.7 a-d
N18049	6.0 j-p	2.1 h-j	80.2 b-f	5.2 g-k	1.0 g-m	1.8 a-c
N18055	5.9 l-p	2.5 c-g	81.1 a-d	4.2 i-k	1.1 c-f	1.7 a-i
N19003	6.6 de	2.9 a	79.6 c-f	4.5 i-k	1.3 a	1.5 j-l
N19006	6.1 h-l	2.4 d-h	80.2 b-f	4.6 i-k	1.1 d-g	1.8 a
N19009	5.9 j-p	2.2 g-j	80.4 b-f	5.0 g-k	1.1 f-m	1.7 a-f
N19012	6.0 j-p	2.3 e-j	81.0 a-d	4.4 i-k	1.1 d-j	1.7 a-i
N19013	6.3 f-h	2.2 f-j	78.6 f-h	6.5 fg	1.1 e-l	1.6 a-j
N19019	6.0 j-n	2.2 h-j	81.0 a-d	4.5 i-k	1.0 i-m	1.7 a-h
N19021	6.0 j-o	2.3 f-j	81.0 a-d	4.2 i-k	1.1 d-k	1.7 a-h
N19024	5.8 o-r	2.5 b-f	80.5 b-e	4.9 h-k	1.1 cd	1.6 f-k
N19026	5.9 k-p	2.5 b-e	80.7 a-e	4.7 h-k	1.1 c-e	1.5 i-l
N19028	5.9 k-p	2.5 b-f	80.4 b-e	5.0 g-k	1.1 c-f	1.5 i-l
N19029	5.6 r	2.4 d-h	82.5 a	3.6 k	1.1 d-i	1.6 h-l
N19030	5.6 qr	2.4 d-h	82.4 a	3.7 k	1.1 d-j	1.6 e-k
N19033	6.0 j-o	2.0 j	81.3 a-c	4.5 i-k	1.0 m	1.7 a-h
N19034	6.0 j-p	2.1 ij	81.3 a-c	4.5 i-k	1.0 lm	1.7 a-g
13x101-2-11-2-1-B	8.3 a	2.9 a	63.5 l	18.2 a	1.3 a	1.4 l
13x101-4-5-2-1-B	6.3 f-i	2.6 b-d	77.3 g-i	7.0 ef	1.2 bc	1.7 a-i
13x101-4-9-1-1-B	7.5 b	2.7 a-c	69.0 k	13.7 c	1.3 a	1.6 c-k
13x101-5-7-2-1-B	6.5 d-f	2.8 ab	77.6 g-i	6.6 fg	1.2 ab	1.6 e-k
<b>Mean</b>	<b>6.2</b>	<b>2.4</b>	<b>78.8</b>	<b>6.2</b>	<b>1.1</b>	<b>1.6</b>
<b>LSD<sup>2</sup></b>	<b>0.2</b>	<b>0.3</b>	<b>1.6</b>	<b>1.4</b>	<b>0.1</b>	<b>0.2</b>

<sup>0.11</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 30. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated averaged across all locations, 2023<sup>1</sup>. (cont.)**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.3 e-k	1.3 b-i	79.6 e-g	14.2 ik	13.2 h-j	0.4 d-f	4.7 f-l
Emery	2.3 h-m	1.3 b-h	79.9 ef	14.3 ik	13.2 hi	0.5 de	4.7 f-l
NC-20	2.2 j-n	1.3 b-i	81.7 c	10.2 lm	13.2 hi	0.6 c	4.5 l-p
Sullivan	2.4 d-g	1.3 b-g	83.7 b	7.2 mn	14.0 ef	0.8 b	4.8 d-g
Walton	2.6 bc	1.5 a	81.4 cd	11.1 kl	13.8 fg	0.6 c	5.1 b
N17045	2.3 f-m	1.4 ab	78.9 f-h	18.9 c-f	12.7 k-o	0.4 f-h	4.7 f-l
N17047	2.2 k-n	1.4 ab	79.2 e-h	17.5 e-h	12.6 m-p	0.4 e-h	4.6 i-o
N18010	2.3 e-j	1.3 a-e	79.6 e-g	15.2 h-j	12.9 i-n	0.4 d-g	4.7 f-j
N18012	2.4 d-f	1.3 a-e	87.2 a	4.5 n	14.8 c	1.1 a	4.9 d-f
N18026	2.3 e-j	1.1 j	78.1 hi	18.5 c-g	13.9 ef	0.3 f-h	4.6 g-l
N18029	2.2 h-n	1.2 g-j	78.4 g-i	20.2 b-e	12.9 i-m	0.3 gh	4.5 j-p
N18033	2.2 i-n	1.4 a-d	78.8 f-h	19.2 c-f	12.8 i-n	0.4 f-h	4.6 h-n
N18039	2.2 l-n	1.3 c-i	78.7 f-i	21.1 a-d	12.6 l-p	0.3 f-h	4.5 k-p
N18044	2.3 e-k	1.4 a-c	78.3 g-i	21.5 a-c	13.0 i-m	0.3 h	4.8 d-h
N18049	2.4 e-h	1.3 a-e	79.3 e-h	16.6 f-i	12.9 i-n	0.4 d-h	4.7 e-j
N18055	2.3 h-m	1.3 b-h	78.4 g-i	20.0 c-e	13.0 h-l	0.3 gh	4.7 f-k
N19003	2.5 b-d	1.2 h-j	77.4 i	19.0 c-f	14.5 cd	0.3 h	5.0 b-d
N19006	2.4 c-e	1.4 a-d	78.4 g-i	18.8 c-g	13.4 gh	0.3 f-h	4.9 c-e
N19009	2.3 e-l	1.3 a-e	79.2 e-h	16.6 f-i	12.8 i-n	0.4 d-h	4.7 f-k
N19012	2.3 e-j	1.3 c-i	78.6 f-i	18.9 c-f	12.9 i-m	0.3 f-h	4.7 f-l
N19013	2.3 e-k	1.2 d-i	80.3 de	13.0 j-l	13.2 h-j	0.5 d	4.6 g-l
N19019	2.2 j-n	1.4 a-d	78.8 f-h	18.9 c-f	12.8 j-o	0.4 f-h	4.6 i-o
N19021	2.3 e-i	1.4 a-d	78.4 g-i	19.8 c-f	13.1 h-k	0.3 gh	4.8 e-i
N19024	2.3 f-l	1.3 c-i	79.0 e-h	17.1 e-i	13.0 h-m	0.4 e-h	4.7 f-l
N19026	2.3 g-m	1.2 e-i	78.8 f-h	18.0 d-h	13.0 h-l	0.4 e-h	4.6 g-l
N19028	2.2 h-n	1.2 d-i	79.1 e-h	17.3 e-i	13.0 h-m	0.4 e-h	4.6 h-m
N19029	2.1 n	1.2 f-j	78.4 g-i	23.6 a	12.4 op	0.3 h	4.4 n-p
N19030	2.1 mn	1.2 ij	78.5 g-i	23.4 ab	12.3 p	0.3 h	4.4 p
N19033	2.1 n	1.3 b-g	79.1 e-h	18.4 c-g	12.5 n-p	0.4 e-h	4.4 m-p
N19034	2.1 mn	1.3 c-i	79.0 e-h	18.6 c-g	12.5 n-p	0.4 f-h	4.4 op
13x101-2-11-2-1-B	3.0 a	1.3 a-e	87.2 a	4.0 n	16.9 a	1.1 a	5.7 a
13x101-4-5-2-1-B	2.6 b	1.4 a-d	80.0 ef	14.1 ik	14.0 ef	0.5 d	5.1 b
13x101-4-9-1-1-B	2.9 a	1.3 a-f	84.3 b	6.1 n	15.7 b	0.9 b	5.5 a
13x101-5-7-2-1-B	2.6 b	1.2 d-i	79.4 e-h	15.6 g-j	14.3 de	0.5 de	5.1 bc
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>79.9</b>	<b>16.2</b>	<b>13.3</b>	<b>0.5</b>	<b>4.7</b>
<b>LSD</b>	<b>0.1</b>	<b>0.1</b>	<b>1.2</b>	<b>3.3</b>	<b>0.4</b>	<b>0.1</b>	<b>0.2</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 31. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Two-year averages across all locations, (2022 – 2023)<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.2 c-e	2.4 b-d	79.8 b-d	5.5 c-e	1.1 c-f	1.6 e-g
Emery	6.2 c-e	2.5 b-d	79.6 cd	5.6 cd	1.1 b-e	1.6 fg
NC-20	6.4 b	2.2 f	78.8 d	6.5 c	1.0 g	1.6 c-f
Sullivan	6.8 a	2.4 de	74.3 f	10.1 a	1.1 b-e	1.6 fg
Walton	6.4 b	2.5 b-d	76.4 e	7.9 b	1.2 b-d	1.7 a
N17045	6.0 d-f	2.2 f	81.2 ab	4.4 d-f	1.0 g	1.7 a-c
N17047	6.1 d-f	2.3 ef	81.0 a-c	4.5 d-f	1.0 g	1.7 a-d
N18010	6.0 d-f	2.2 f	80.4 a-c	5.0 d-f	1.1 fg	1.7 a-c
N18012	6.9 a	2.4 c-e	74.2 f	10.3 a	1.1 d-f	1.5 gh
N18026	6.4 bc	2.9 a	80.4 a-c	4.3 ef	1.2 a	1.4 h
N18029	5.9 f	2.6 b	81.4 a	4.0 f	1.2 b	1.5 g
N18033	6.2 cd	2.3 ef	81.1 ab	4.3 ef	1.1 g	1.7 a-e
N18039	6.0 f	2.5 b-d	81.2 a	4.2 ef	1.1 b-e	1.6 d-g
N18044	5.9 f	2.5 b-d	81.3 a	3.9 f	1.1 b-d	1.7 ab
N18049	6.2 de	2.3 ef	80.3 a-c	4.9 d-f	1.1 e-g	1.7 a-c
N18055	6.0 ef	2.6 bc	81.1 ab	4.0 f	1.2 bc	1.6 b-f
<b>Mean</b>	<b>6.2</b>	<b>2.4</b>	<b>79.5</b>	<b>5.6</b>	<b>1.1</b>	<b>1.6</b>
<b>LSD<sup>2</sup></b>	<b>0.2</b>	<b>0.2</b>	<b>1.5</b>	<b>1.3</b>	<b>0.1</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 31. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Two-year averages across all locations, (2022 – 2023)<sup>1</sup>, (cont.)**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.2 c-g	1.2 c-e	79.3 d	15.1 de	13.2 bc	0.4 c-e	4.6 c-e
Emery	2.2 d-h	1.2 b-e	79.4 cd	15.9 de	13.2 b	0.4 cd	4.6 c-e
NC-20	2.1 h	1.3 b-e	80.3 bc	14.0 ef	13.1 b-e	0.5 bc	4.4 f
Sullivan	2.4 b	1.3 b-d	82.6 a	8.6 h	14.0 a	0.7 a	4.7 b
Walton	2.5 a	1.4 a	80.8 b	12.1 fg	13.9 a	0.6 b	5.0 a
N17045	2.2 d-h	1.3 a-c	78.7 d-g	19.4 bc	12.8 e	0.3 d-g	4.5 c-f
N17047	2.2 f-h	1.3 ab	78.7 d-g	18.7 bc	12.9 de	0.3 d-g	4.6 c-f
N18010	2.3 b-d	1.3 a-c	79.1 de	17.1 cd	12.9 c-e	0.4 d-f	4.6 b-e
N18012	2.3 b-e	1.2 b-e	82.9 a	11.3 g	14.0 a	0.7 a	4.6 b-e
N18026	2.3 c-f	1.1 f	77.8 g	19.9 b	13.8 a	0.3 fg	4.6 c-e
N18029	2.2 e-h	1.2 e	78.2 e-g	21.0 ab	13.1 b-e	0.3 fg	4.5 d-f
N18033	2.2 gh	1.3 a-c	78.5 d-g	19.9 b	13.0 b-e	0.3 e-g	4.5 d-f
N18039	2.2 f-h	1.2 de	78.4 d-g	20.8 ab	12.9 b-e	0.3 fg	4.5 ef
N18044	2.3 b-d	1.3 a-c	78.0 fg	22.5 a	13.1 b-d	0.3 g	4.7 b
N18049	2.3 bc	1.3 a-d	78.8 d-f	17.4 cd	13.1 b-d	0.4 d-g	4.7 bc
N18055	2.2 c-g	1.3 b-d	78.0 fg	21.1 ab	13.2 bc	0.3 fg	4.7 b-d
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>79.3</b>	<b>17.2</b>	<b>13.3</b>	<b>0.4</b>	<b>4.6</b>
<b>LSD<sup>2</sup></b>	<b>0.1</b>	<b>0.1</b>	<b>1.0</b>	<b>2.5</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.

## Fatty Acid Results

**Table 32. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Three-year averages across all locations, (2021 – 2023)<sup>1</sup>.**

Variety	Palmitic C16:0	Stearic C18:0	Oleic C18:1	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey II	6.2 bc	2.4 ab	79.6 ab	5.6 cd	1.1 a	1.6 bc
Emery	6.2 bc	2.5 a	79.7 ab	5.5 cd	1.1 a	1.6 c
NC-20	6.3 b	2.3 c	79.3 b	6.0 c	1.1 b	1.6 ab
Sullivan	6.6 a	2.4 ab	75.9 d	8.7 a	1.1 a	1.6 bc
Walton	6.3 b	2.5 a	77.3 c	7.2 b	1.1 a	1.7 a
N17045	6.1 c	2.3 c	80.6 a	4.7 d	1.1 b	1.7 a
N17047	6.1 c	2.3 bc	80.6 a	4.8 d	1.1 b	1.6 ab
<b>Mean</b>	<b>6.3</b>	<b>2.4</b>	<b>79.0</b>	<b>6.1</b>	<b>1.1</b>	<b>1.6</b>
<b>LSD<sup>2</sup></b>	<b>0.2</b>	<b>0.1</b>	<b>1.3</b>	<b>1.1</b>	<b>0.04</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher's LSD test.

## Fatty Acid Results

**Table 32. Fatty Acid Composition, Iodine Values, Oleic/Linoleic (O/L) Ratio, % Total Saturated, Polyunsaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Three-year averages across all locations, (2021 – 2023)<sup>1</sup>, (cont.)**

Variety	Behenic C22:0	Lignoceric C24:0	Iodine Value <sup>3</sup>	O/L ratio <sup>4</sup>	% Total Saturated	P/S ratio	% Total Long Chain Saturated
Bailey II	2.3 c	1.3 b	79.3 cd	15.1 bc	13.3 b	0.4 cd	4.7 bc
Emery	2.2 c	1.3 b	79.3 cd	16.3 ab	13.3 b	0.4 cd	4.6 c
NC-20	2.2 c	1.3 b	79.8 bc	15.3 bc	13.1 b	0.5 bc	4.6 c
Sullivan	2.3 b	1.3 b	81.5 a	10.9 d	13.8 a	0.6 a	4.8 b
Walton	2.4 a	1.4 a	80.3 b	13.6 c	13.8 a	0.5 b	5.0 a
N17045	2.3 c	1.3 b	78.8 d	18.4 a	13.0 b	0.4 d	4.6 bc
N17047	2.2 c	1.3 b	78.9 d	18.3 a	13.0 b	0.4 d	4.6 c
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>79.7</b>	<b>15.4</b>	<b>13.3</b>	<b>0.5</b>	<b>4.7</b>
<b>LSD<sup>2</sup></b>	<b>0.1</b>	<b>0.1</b>	<b>0.8</b>	<b>2.2</b>	<b>0.3</b>	<b>0.1</b>	<b>0.1</b>

<sup>1</sup> Refer to page 3 for an explanation of the computations of these characters.

<sup>2</sup> Minimum significant difference at P=0.05, based on the Fisher LSD test.

<sup>3</sup> Lower iodine value indicates longer shelf life.

<sup>4</sup> Higher O/L ratio indicates longer shelf life.