

2014

# Peanut Variety and Quality Evaluation Results

## II. Quality Data

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Tidewater Agricultural Research and Extension Center

Virginia Agricultural Experiment Station



**Virginia  
Cooperative  
Extension**

Virginia Tech  
Virginia State University

# PEANUT VARIETY AND QUALITY EVALUATION RESULTS 2014

## 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 commercially available cultivars and 25 advanced breeding lines tested in the Peanut Variety and Quality Evaluation (PVQE) small plots in 2014. The small PVQE plots with 36 varieties were tested at five locations in Virginia, North Carolina, and South Carolina: Suffolk, VA, Martin Co., NC, Rocky Mount, NC, Bladen, NC, and Blackville, SC. At Suffolk, VA, and Martin Co., NC, two Digs were achieved. For the other locations, only one Dig was tested. Each genotype was replicated 2 times at each location and Digging date. Varieties' names and pedigree are presented in Table 1. A detailed description of the plant material, test locations, weather conditions, and cultural practices is included in the PVQE 2014 Results. I. Agronomic and Grade Data, at <http://www.pubs.ext.vt.edu/AREC/AREC-125/AREC-125.html>.

## 2014 SMALL PLOT TESTS

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

## Small Plot Tests

## PLANT MATERIAL AND TEST LOCATIONS

**Table 1. Names and pedigree of the genotypes (advanced breeding lines and commercial varieties) evaluated in 2014.**

Genotype Number	Variety or Line	Pedigree
1	Bailey	NC 12C*2 / N96076L
2	Sugg	Gregory // X98006 (F1)
3	Wynne	Bailey / X03036 (F01)
4	Sullivan	N03079FT / X03034 (F01)
5	Spain	
6	07030-1-10-1	
7	07036-1-2-1	
8	N09037ol	N03079FT*2 / Brantley
9	N09039olF	N03079FT / X03032 (F01)
10	N09042olF	N03079FT / X03032 (F01)
11	N10043olJ	N02006 / X03024 (F01)
12	N10046ol	N03079FT / X03031 (F01)
13	N10047ol	N03079FT / X03031 (F01)
14	N10051ol	N03079FT / N02059ol (Per)
15	N10066olSmT	N03076FT / X05019 (F01)
16	N10078olJC	N03088T / X05030 (F01)
17	N10080olJCL	N03088T / X05030 (F01)
18	N10082olJC	N03088T / X05030 (F01)
19	N11020olJ	X03146 (BC1F1-01-03-01: F04) / N03084FT
20	N11028ol	X03151 (BC1F1-05-02-S-04: F05) / Sugg
21	N11034ol	X03151 (BC1F1-05-02-S-04: F05) / Sugg
22	N11048ol	X03153 (BC1F1-04-01-S-01: F05) / N03078FT
23	N11051olJ	X03153 (BC1F1-04-01-S-01: F05) / N03084FT
24	N12006ol	Bailey / X07015 (BC2F1-01: F01)
25	N12007ol	Bailey / X07016 (BC2F1-04: F01)
26	N12008olCLSmt	Bailey / X07016 (BC2F1-04: F01)
27	N12009olCLT	Bailey / X07016 (BC2F1-04: F01)
28	N12010ol	Bailey / X07016 (BC2F1-04: F01)
29	N12014ol	Bailey / X07018 (BC2F1-07: F01)
30	N12015ol	Bailey / X07018 (BC2F1-07: F01)

## Small Plot Tests

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

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

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

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

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

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

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

Fatty acid composition is reported from all 2014 PVQE locations and digging dates in Tables 20 through 28. Table 29 shows the content of the fatty acids averaged across all locations in 2014. 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 Tukey HSD test and the minimum significant difference was included in the tables. Use these values to compare the varieties.

For example in Table 2, the difference between Bailey and Sugg for percent whole blanched kernels is 3.9 (96.7 – 92.8) and this is not a significant difference because it is smaller than 4.6, which is the minimum significant difference. Bailey and Sugg are, therefore, not significantly different from each other for this trait. However, Bailey and Spain are significantly different for the percent whole blanched kernels because their means difference is 28.9; and this difference is more than 4.6.

## Blanching Results

Table 2. Laboratory sample blanching of Extra Large Kernels (ELK) from Tidewater AREC (Suffolk) VA, Dig 1, 2014 (22 September).

Variety or Line	% 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	5.8	4.9	1.7	0.4	96.7	0.0	1.3
Sugg	5.8	4.9	1.7	2.2	92.8	0.0	3.3
Wynne	5.8	4.9	1.7	0.8	96.3	0.0	1.3
Sullivan	5.9	4.9	1.6	0.6	96.3	0.0	1.6
Spain	5.8	4.9	1.7	5.0	67.8	4.7	20.9
07030-1-10-1	5.8	4.9	1.6	2.0	90.7	1.0	4.7
07036-1-2-1	5.8	4.9	1.6	2.0	91.9	0.0	4.5
N09037oI	5.8	4.9	1.6	1.3	95.7	0.0	1.5
N09039oIF	5.8	4.9	1.7	1.9	94.1	0.0	2.5
N09042oIF	5.8	4.9	1.7	1.6	94.7	0.0	2.2
N10043oIJ	5.8	4.9	1.6	0.9	96.1	0.0	1.5
N10046oI	5.7	4.9	1.6	1.0	97.1	0.0	0.3
N10047oI	5.8	4.9	1.6	1.0	95.7	0.0	1.8
N10051oI	5.8	5.0	1.7	2.1	92.2	0.0	4.1
N10066oISmT	5.9	4.9	1.7	1.3	93.6	0.0	3.6
N10078oIJC	5.8	4.9	1.7	1.2	94.8	0.0	2.4
N10080oIJCL	5.8	4.9	1.6	1.8	93.1	0.0	3.5
N10082oIJC	5.8	4.9	1.7	1.2	95.1	0.0	2.1
N11020oIJ	5.8	4.9	1.7	1.2	95.4	0.0	1.7
N11028oI	5.8	4.9	1.6	0.7	95.7	0.0	2.2
N11034oI	5.8	4.9	1.6	2.6	93.3	0.0	2.6
N11048oI	5.8	4.9	1.7	0.9	95.2	0.0	2.3
N11051oIJ	5.9	4.9	1.7	2.4	91.3	0.3	4.4
N12006oI	5.8	4.9	1.7	1.2	93.7	0.0	3.5
N12007oI	5.9	5.0	1.6	1.6	94.3	0.0	2.6
N12008oICLSmT	5.8	4.9	1.7	2.0	94.2	0.0	2.2
N12009oICLT	5.8	4.9	1.6	1.5	95.3	0.0	1.7
N12010oI	5.9	5.0	1.7	1.4	94.3	0.0	2.6
N12014oI	5.8	4.9	1.6	1.7	94.0	0.0	2.8
N12015oI	5.9	4.9	1.6	1.5	93.3	0.0	3.7
<b>Mean</b>	<b>5.8</b>	<b>4.9</b>	<b>1.6</b>	<b>1.5</b>	<b>93.5</b>	<b>0.2</b>	<b>3.2</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.3</b>	<b>2.7</b>	<b>4.6</b>	<b>1.8</b>	<b>3.5</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 3. Laboratory sample blanching of Extra Large Kernels (ELK) from Tidewater AREC (Suffolk) VA, Dig 2, 2014 (6 October)**

Variety or Line	% H <sub>2</sub> O before Roasting	% H <sub>2</sub> O after Roasting	% Blanchin g loss	% Splits Blanched	% Whole Blanched	% Not Blanched	% Partially Blanched
Bailey	5.8	5.0	1.7	1.0	94.8	0.0	2.6
Sugg	5.8	5.0	1.7	1.6	94.7	0.0	2.0
Wynne	5.8	4.9	1.7	1.0	96.1	0.0	1.3
Sullivan	5.8	5.0	1.7	1.1	95.1	0.0	2.2
Spain	5.8	5.0	1.2	5.9	70.3	8.3	14.4
07030-1-10-1	5.8	4.9	1.7	2.3	90.8	0.4	4.9
07036-1-2-1	5.8	5.0	2.7	2.0	90.6	0.1	4.7
N09037ol	5.8	5.0	1.7	1.3	94.3	0.0	2.8
N09039olF	5.8	4.9	1.7	1.3	93.9	0.0	3.2
N09042olF	5.8	5.0	1.7	0.9	94.6	0.0	3.0
N10043olJ	5.8	5.0	1.7	1.8	93.3	0.0	3.2
N10046ol	5.8	5.0	1.7	0.8	94.3	0.0	3.3
N10047ol	5.8	4.9	1.7	1.3	94.9	0.0	2.2
N10051ol	5.7	4.8	1.7	1.3	93.1	0.0	4.1
N10066olSmT	5.8	4.9	1.7	2.1	91.5	0.0	4.8
N10078olJC	5.8	5.0	1.7	1.8	93.2	0.0	3.4
N10080olJCL	5.8	4.9	1.7	1.7	93.0	0.0	3.7
N10082olJC	5.7	4.9	1.7	1.4	94.5	0.0	2.4
N11020olJ	5.8	4.9	1.7	1.7	93.5	0.4	2.8
N11028ol	5.7	4.9	1.7	1.1	94.7	0.0	2.6
N11034ol	5.8	4.9	1.7	1.4	94.0	0.0	3.0
N11048ol	5.8	4.9	1.7	2.2	94.4	0.0	1.8
N11051olJ	5.8	5.0	1.7	1.2	91.8	0.1	5.3
N12006ol	5.8	4.9	1.7	2.1	93.6	0.0	2.7
N12007ol	5.8	4.9	1.7	2.3	93.2	0.0	2.9
N12008olCLSmT	5.8	5.3	1.7	1.8	93.4	0.0	3.2
N12009olCLT	5.8	4.9	1.7	3.2	92.4	0.1	2.6
N12010ol	5.8	5.0	1.7	1.6	93.7	0.0	3.1
N12014ol	5.8	4.9	1.7	1.6	94.2	0.0	2.6
N12015ol	5.8	4.9	1.7	1.7	92.9	0.0	3.8
<b>Mean</b>	<b>5.8</b>	<b>4.9</b>	<b>1.7</b>	<b>1.7</b>	<b>92.8</b>	<b>0.3</b>	<b>3.5</b>
<b>Tukey HSD<sup>1</sup></b>			<b>1.3</b>	<b>2.8</b>	<b>7.1</b>	<b>5.4</b>	<b>12.8</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 4. Laboratory sample blanching of Extra Large Kernels (ELK). Averages of both digging dates from Tidewater AREC (Suffolk), VA, 2014.**

Variety or Line	% 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	5.8	5.0	1.7	0.7	95.8	0.0	1.9
Sugg	5.8	4.9	1.7	1.9	93.8	0.0	2.7
Wynne	5.8	4.9	1.7	0.9	96.2	0.0	1.3
Sullivan	5.8	5.0	1.6	0.8	95.7	0.0	1.9
Spain	5.8	4.9	1.4	5.5	69.0	6.5	17.6
07030-1-10-1	5.8	4.9	1.6	2.2	90.7	0.7	4.8
07036-1-2-1	5.8	4.9	2.1	2.0	91.3	0.1	4.6
N09037ol	5.8	4.9	1.7	1.3	95.0	0.0	2.1
N09039olF	5.8	4.9	1.7	1.6	94.0	0.0	2.8
N09042olF	5.8	4.9	1.7	1.2	94.6	0.0	2.6
N10043olJ	5.8	4.9	1.7	1.3	94.7	0.0	2.3
N10046ol	5.7	4.9	1.6	0.9	95.7	0.0	1.8
N10047ol	5.8	4.9	1.6	1.1	95.3	0.0	2.0
N10051ol	5.7	4.9	1.7	1.7	92.6	0.0	4.1
N10066olSmT	5.8	4.9	1.7	1.7	92.5	0.0	4.2
N10078olJC	5.8	4.9	1.7	1.5	94.0	0.0	2.9
N10080olJCL	5.8	4.9	1.6	1.7	93.1	0.0	3.6
N10082olJC	5.7	4.9	1.7	1.3	94.8	0.0	2.3
N11020olJ	5.8	4.9	1.7	1.5	94.4	0.2	2.3
N11028ol	5.8	4.9	1.6	0.9	95.2	0.0	2.4
N11034ol	5.8	4.9	1.6	2.0	93.6	0.0	2.8
N11048ol	5.8	4.9	1.7	1.5	94.8	0.0	2.0
N11051olJ	5.8	4.9	1.7	1.8	91.5	0.2	4.8
N12006ol	5.8	4.9	1.7	1.6	93.6	0.0	3.1
N12007ol	5.8	4.9	1.6	1.9	93.7	0.0	2.7
N12008olCLSmT	5.8	5.1	1.7	1.9	93.8	0.0	2.7
N12009olCLT	5.8	4.9	1.7	2.3	93.8	0.1	2.2
N12010ol	5.8	5.0	1.7	1.5	94.0	0.0	2.8
N12014ol	5.8	4.9	1.6	1.6	94.1	0.0	2.7
N12015ol	5.8	4.9	1.6	1.6	93.1	0.0	3.8
<b>Mean</b>	<b>5.8</b>	<b>4.9</b>	<b>1.7</b>	<b>1.6</b>	<b>93.1</b>	<b>0.3</b>	<b>3.3</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.6</b>	<b>1.9</b>	<b>4.0</b>	<b>2.4</b>	<b>0.6</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 5. Laboratory sample blanching of Extra Large Kernels (ELK) from Martin County, NC, Dig 1, 2014 (19 September).**

Variety or Line	% 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	5.6	4.9	1.7	1.3	94.4	0.0	2.6
Sugg	5.6	4.8	1.7	1.4	93.8	0.0	3.2
Wynne	5.8	4.8	1.7	0.5	94.2	0.0	3.7
Sullivan	5.7	4.9	1.7	1.4	94.5	0.0	2.5
Spain	5.7	4.9	1.7	2.4	62.0	14.0	20.0
07030-1-10-1	5.7	4.9	1.8	1.3	91.6	0.2	5.2
07036-1-2-1	5.7	4.8	1.7	2.3	90.6	0.0	5.5
N09037ol	5.7	4.8	1.7	0.9	94.8	0.0	2.7
N09039olF	5.6	4.8	1.8	1.2	93.4	0.0	3.7
N09042olF	5.6	4.8	1.7	1.5	92.3	0.0	4.6
N10043olJ	5.7	4.9	1.6	1.0	94.6	0.0	2.9
N10046ol	5.7	4.9	1.7	0.9	96.7	0.0	0.8
N10047ol	5.6	4.8	1.7	1.8	94.6	0.0	2.0
N10051ol	5.7	4.9	1.7	1.9	92.8	0.0	3.7
N10066olSmT	5.6	4.9	1.7	2.5	92.5	0.0	3.4
N10078olJC	5.7	4.8	1.7	1.3	93.1	0.0	3.9
N10080olJCL	5.6	4.9	1.7	1.9	93.4	0.0	3.1
N10082olJC	5.6	4.9	1.7	2.0	93.6	0.0	2.8
N11020olJ	5.7	4.9	1.7	2.0	93.4	0.1	2.9
N11028ol	5.7	4.9	1.7	1.7	93.3	0.0	3.4
N11034ol	5.7	4.8	1.7	1.3	93.1	0.0	4.0
N11048ol	5.7	4.9	1.7	2.6	91.6	0.0	4.1
N11051olJ	5.7	4.8	1.7	2.8	91.3	0.0	4.3
N12006ol	5.6	4.8	1.7	2.2	93.4	0.0	2.8
N12007ol	5.6	4.9	1.7	2.6	91.3	0.0	4.4
N12008olCLSmT	5.6	4.8	2.2	2.6	92.6	0.0	2.7
N12009olCLT	5.7	4.9	1.7	2.1	91.9	0.0	4.4
N12010ol	5.7	4.9	1.7	2.4	93.9	0.0	2.1
N12014ol	5.7	4.9	1.7	2.0	93.3	0.0	3.1
N12015ol	5.7	4.9	1.7	1.5	92.2	0.0	4.7
<b>Mean</b>	<b>5.6</b>	<b>4.8</b>	<b>1.7</b>	<b>1.8</b>	<b>92.1</b>	<b>0.5</b>	<b>4.0</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.5</b>	<b>2.3</b>	<b>4.8</b>	<b>1.7</b>	<b>3.6</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 6. Laboratory sample blanching of Extra Large Kernels (ELK) from Martin County, NC, Dig 2, 2014 (19 October).**

Variety or Line	% 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	5.6	4.7	1.7	2.2	94.0	0.0	2.1
Sugg	5.7	4.7	1.7	2.0	93.8	0.0	2.5
Wynne	5.7	4.9	1.7	0.7	96.0	0.0	1.6
Sullivan	5.7	4.8	1.7	1.7	95.6	0.0	1.1
Spain	5.6	4.8	1.7	4.3	72.5	5.5	16.1
07030-1-10-1	5.8	4.8	2.2	2.2	92.8	0.0	2.9
07036-1-2-1	5.6	4.9	1.7	1.9	94.0	0.0	2.5
N09037ol	5.6	4.8	1.7	1.0	96.1	0.0	1.4
N09039olF	5.7	4.8	1.7	1.2	94.5	0.0	2.7
N09042olF	5.6	4.8	1.7	1.3	95.2	0.0	2.0
N10043olJ	5.7	4.7	1.7	1.3	93.8	0.0	3.3
N10046ol	5.7	4.9	1.6	0.4	97.7	0.0	0.4
N10047ol	5.7	4.9	1.7	1.2	95.3	0.0	1.9
N10051ol	5.6	4.8	1.6	1.4	95.8	0.0	1.3
N10066olSmT	5.6	4.7	1.7	1.8	92.8	0.0	3.7
N10078olJC	5.6	4.8	1.7	1.6	94.7	0.0	2.1
N10080olJCL	5.7	4.9	1.7	1.0	93.7	0.0	3.7
N10082olJC	5.6	4.8	1.7	0.9	95.7	0.0	1.8
N11020olJ	5.6	4.7	1.7	1.5	94.5	0.0	2.3
N11028ol	5.6	4.8	1.7	1.2	95.3	0.0	1.8
N11034ol	5.7	4.8	1.7	1.7	94.3	0.0	2.4
N11048ol	5.6	4.8	1.8	1.7	94.3	0.0	2.3
N11051olJ	5.7	4.7	1.7	1.9	93.8	0.0	2.6
N12006ol	5.6	4.9	1.7	1.5	95.2	0.0	1.7
N12007ol	5.7	4.8	1.7	1.4	94.0	0.0	3.0
N12008olCLSmT	5.7	4.8	1.6	1.5	93.8	0.0	3.1
N12009olCLT	5.6	4.8	1.7	1.7	93.6	0.0	3.1
N12010ol	5.6	4.8	1.7	1.1	94.5	0.0	2.8
N12014ol	5.7	4.9	1.7	1.8	94.3	0.0	2.3
N12015ol	5.6	4.8	1.7	0.9	95.3	0.0	2.2
<b>Mean</b>	<b>5.6</b>	<b>4.8</b>	<b>1.7</b>	<b>1.5</b>	<b>93.9</b>	<b>0.2</b>	<b>2.7</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.6</b>	<b>2.2</b>	<b>4.9</b>	<b>1.0</b>	<b>3.9</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.



## Blanching Results

**Table 7. Laboratory sample blanching of Extra Large Kernels (ELK). Averages of both digging dates from Martin County, NC, 2014.**

Variety or Line	% 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	5.6	4.8	1.7	1.7	94.2	0.0	2.4
Sugg	5.6	4.7	1.7	1.7	93.8	0.0	2.8
Wynne	5.7	4.8	1.7	0.6	95.1	0.0	2.6
Sullivan	5.7	4.9	1.7	1.5	95.0	0.0	1.8
Spain	5.6	4.8	1.7	3.3	67.2	9.8	18.0
07030-1-10-1	5.7	4.8	2.0	1.7	92.2	0.1	4.0
07036-1-2-1	5.6	4.8	1.7	2.1	92.3	0.0	4.0
N09037ol	5.6	4.8	1.7	0.9	95.4	0.0	2.0
N09039olF	5.6	4.8	1.7	1.2	94.0	0.0	3.2
N09042olF	5.6	4.8	1.7	1.4	93.8	0.0	3.3
N10043olJ	5.7	4.8	1.7	1.1	94.2	0.0	3.1
N10046ol	5.7	4.9	1.6	0.6	97.2	0.0	0.6
N10047ol	5.6	4.8	1.7	1.5	94.9	0.0	2.0
N10051ol	5.6	4.8	1.6	1.6	94.3	0.0	2.5
N10066olSmT	5.6	4.8	1.7	2.1	92.7	0.0	3.6
N10078olJC	5.6	4.8	1.7	1.4	93.9	0.0	3.0
N10080olJCL	5.6	4.9	1.7	1.4	93.5	0.0	3.4
N10082olJC	5.6	4.9	1.7	1.4	94.6	0.0	2.3
N11020olJ	5.6	4.8	1.7	1.7	94.0	0.1	2.6
N11028ol	5.6	4.8	1.7	1.5	94.3	0.0	2.6
N11034ol	5.7	4.8	1.7	1.5	93.7	0.0	3.2
N11048ol	5.6	4.8	1.7	2.1	93.0	0.0	3.2
N11051olJ	5.7	4.8	1.7	2.4	92.5	0.0	3.5
N12006ol	5.6	4.8	1.7	1.8	94.3	0.0	2.2
N12007ol	5.7	4.8	1.7	2.0	92.7	0.0	3.7
N12008olCLSmT	5.6	4.8	1.9	2.1	93.2	0.0	2.9
N12009olCLT	5.6	4.8	1.7	1.9	92.8	0.0	3.7
N12010ol	5.6	4.8	1.7	1.7	94.2	0.0	2.4
N12014ol	5.7	4.9	1.7	1.9	93.8	0.0	2.7
N12015ol	5.6	4.9	1.7	1.2	93.7	0.0	3.4
<b>Mean</b>	<b>5.6</b>	<b>4.8</b>	<b>1.7</b>	<b>1.6</b>	<b>93.0</b>	<b>0.3</b>	<b>3.3</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.4</b>	<b>1.7</b>	<b>5.0</b>	<b>2.6</b>	<b>3.4</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 8. Laboratory sample blanching of Extra Large Kernels (ELK). Averages from Tidewater AREC (Suffolk) VA and Martin County, NC, 2014.**

Variety or Line	% 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	5.7	4.9	1.7	1.2	95.0	0.0	2.1
Sugg	5.7	4.8	1.7	1.8	93.8	0.0	2.7
Wynne	5.7	4.9	1.7	0.7	95.6	0.0	2.0
Sullivan	5.7	4.9	1.7	1.2	95.3	0.0	1.8
Spain	5.7	4.9	1.6	4.4	68.1	8.1	17.8
07030-1-10-1	5.8	4.9	1.8	1.9	91.5	0.4	4.4
07036-1-2-1	5.7	4.9	1.9	2.0	91.8	0.0	4.3
N09037ol	5.7	4.9	1.7	1.1	95.2	0.0	2.1
N09039olF	5.7	4.8	1.7	1.4	94.0	0.0	3.0
N09042olF	5.7	4.9	1.7	1.3	94.2	0.0	2.9
N10043olJ	5.7	4.9	1.7	1.2	94.4	0.0	2.7
N10046ol	5.7	4.9	1.6	0.8	96.4	0.0	1.2
N10047ol	5.7	4.9	1.7	1.3	95.1	0.0	2.0
N10051ol	5.7	4.8	1.6	1.7	93.4	0.0	3.3
N10066olSmT	5.7	4.8	1.7	1.9	92.6	0.0	3.9
N10078olJC	5.7	4.8	1.7	1.4	93.9	0.0	2.9
N10080olJCL	5.7	4.9	1.7	1.6	93.3	0.0	3.5
N10082olJC	5.7	4.9	1.7	1.4	94.7	0.0	2.3
N11020olJ	5.7	4.8	1.7	1.6	94.2	0.1	2.4
N11028ol	5.7	4.8	1.6	1.2	94.8	0.0	2.5
N11034ol	5.7	4.9	1.7	1.7	93.6	0.0	3.0
N11048ol	5.7	4.9	1.7	1.8	93.9	0.0	2.6
N11051olJ	5.7	4.8	1.7	2.1	92.0	0.1	4.1
N12006ol	5.7	4.8	1.7	1.7	94.0	0.0	2.7
N12007ol	5.7	4.9	1.7	1.9	93.2	0.0	3.2
N12008olCLSmT	5.7	4.9	1.8	2.0	93.5	0.0	2.8
N12009olCLT	5.7	4.9	1.7	2.1	93.3	0.0	2.9
N12010ol	5.7	4.9	1.7	1.6	94.1	0.0	2.6
N12014ol	5.7	4.9	1.6	1.7	94.0	0.0	2.7
N12015ol	5.7	4.9	1.7	1.4	93.4	0.0	3.6
<b>Mean</b>	<b>5.7</b>	<b>4.9</b>	<b>1.7</b>	<b>1.6</b>	<b>93.1</b>	<b>0.3</b>	<b>3.3</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.4</b>	<b>1.3</b>	<b>3.1</b>	<b>1.7</b>	<b>3.1</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD 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 (2013- 2014).**

Variety or Line	% 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	5.7	4.9	1.7	1.3	94.7	0.0	2.4
N09037ol	5.8	4.9	1.6	1.4	95.1	0.0	1.9
N09039olF	5.8	4.9	1.7	1.4	93.4	0.0	3.6
N09042olF	5.8	4.9	1.6	1.5	93.7	0.0	3.2
N10043olJ	5.7	4.8	1.7	1.4	93.8	0.0	3.2
N10046ol	5.7	4.9	1.6	0.8	95.8	0.0	1.8
N10047ol	5.7	4.9	1.7	1.3	95.1	0.0	2.0
N10051ol	5.7	4.8	1.7	1.8	93.5	0.0	3.0
N10066olSmT	5.8	4.9	1.7	1.7	92.9	0.0	3.8
N10078olJC	5.7	4.9	1.7	1.6	93.3	0.0	3.4
N10080olJCL	5.7	4.8	1.6	1.7	93.1	0.0	3.6
N10082olJC	5.7	4.9	1.7	1.8	94.2	0.0	2.3
N11020olJ	5.8	4.8	1.7	1.5	93.6	0.1	3.1
N11028ol	5.7	4.9	1.6	1.8	93.0	0.0	3.6
N11034ol	5.8	4.9	1.6	1.6	93.1	0.0	3.7
N11048ol	5.8	4.9	1.7	1.9	92.6	0.0	3.9
N11051olJ	5.8	4.9	1.5	2.4	90.6	0.0	5.5
Sullivan	5.8	4.9	1.7	1.5	94.6	0.0	2.2
Wynne	5.8	4.9	1.6	0.8	95.5	0.0	2.0
Spain	5.8	4.9	1.6	3.3	75.0	4.2	15.9
Sugg	5.8	4.9	1.7	1.6	94.2	0.0	2.5
<b>Mean</b>	<b>5.8</b>	<b>4.9</b>	<b>1.6</b>	<b>1.6</b>	<b>92.9</b>	<b>0.2</b>	<b>3.6</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.2</b>	<b>1.1</b>	<b>3.3</b>	<b>1.5</b>	<b>2.5</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD 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 (2012- 2014).**

Variety or Line	% 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	5.8	4.9	1.6	1.5	95.2	0.0	1.6
N10047ol	5.7	4.9	1.7	1.2	95.6	0.0	1.6
N10080olJCL	5.8	4.8	1.3	1.6	94.3	0.0	2.9
N09037ol	5.8	4.9	1.6	1.4	95.5	0.0	1.5
N10046ol	5.7	4.9	1.6	0.8	96.2	0.0	1.3
N10066olSmT	5.8	4.9	1.7	1.7	94.0	0.0	2.6
N10078olJC	5.8	4.9	1.6	1.7	94.4	0.0	2.3
N10082olJC	5.7	4.9	1.6	1.5	95.2	0.0	1.6
Sullivan	5.8	4.9	1.6	1.6	95.2	0.0	1.6
Wynne	5.8	4.9	1.7	0.9	95.9	0.0	1.6
<b>Mean</b>	<b>5.8</b>	<b>4.9</b>	<b>1.6</b>	<b>1.2</b>	<b>95.6</b>	<b>0.0</b>	<b>1.6</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.5</b>	<b>0.8</b>	<b>1.6</b>	<b>0</b>	<b>1.4</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

Table 11. Laboratory sample blanching of Medium Kernels from Tidewater AREC (Suffolk) VA, Dig 1, 2014 (22 Septmeber).

Variety or Line	% 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	5.7	5.0	1.7	2.1	89.5	0.5	6.3
Sugg	5.7	5.0	1.7	1.9	88.3	0.5	7.7
Wynne	5.7	4.9	1.7	1.9	90.1	0.9	5.5
Sullivan	5.7	4.9	1.9	2.2	90.5	0.9	4.6
Spain	5.6	4.8	1.7	3.8	63.4	6.4	24.8
07030-1-10-1	5.7	5.0	1.7	2.8	86.3	3.1	6.1
07036-1-2-1	5.6	4.9	1.7	2.9	85.8	4.4	5.2
N09037oI	5.7	4.9	1.7	2.2	86.6	2.6	7.1
N09039oIF	5.7	4.9	1.7	2.0	92.7	0.1	3.6
N09042oIF	5.6	4.9	1.7	1.2	90.8	0.2	6.1
N10043oIJ	5.6	4.9	2.0	2.5	86.7	1.2	7.7
N10046oI	5.7	4.9	1.7	2.2	92.0	1.5	2.7
N10047oI	5.7	5.0	1.7	2.2	86.0	2.8	7.5
N10051oI	5.7	4.8	1.7	2.3	90.3	1.1	4.7
N10066oISmT	5.7	4.9	1.7	1.7	87.6	1.1	8.0
N10078oIJC	5.7	4.9	1.7	2.0	86.2	2.0	8.2
N10080oIJCL	5.6	4.9	1.7	2.9	86.1	2.0	7.4
N10082oIJC	5.7	5.0	1.7	2.3	86.7	1.8	7.6
N11020oIJ	5.6	4.9	1.7	2.3	88.3	2.7	5.2
N11028oI	5.7	4.9	1.7	1.6	91.0	0.8	5.0
N11034oI	5.7	4.9	1.7	1.8	91.7	0.1	4.8
N11048oI	5.6	4.9	1.7	1.4	88.4	1.2	7.5
N11051oIJ	5.7	4.9	1.6	2.0	83.7	2.8	9.9
N12006oI	5.5	4.8	1.7	2.6	89.1	0.7	6.0
N12007oI	5.6	4.8	1.7	2.4	88.7	1.0	6.4
N12008oICLSmT	5.6	4.8	1.7	2.4	91.8	1.3	2.8
N12009oICLT	5.7	4.9	1.7	2.0	90.5	1.5	4.4
N12010oI	5.6	4.9	1.7	2.2	89.4	1.4	5.4
N12014oI	5.7	4.9	1.7	2.9	87.6	0.7	7.2
N12015oI	5.7	4.8	1.7	2.6	90.7	0.7	4.5
<b>Mean</b>	<b>5.6</b>	<b>4.9</b>	<b>1.7</b>	<b>2.2</b>	<b>87.9</b>	<b>1.6</b>	<b>6.6</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.4</b>	<b>2.4</b>	<b>4.1</b>	<b>2.5</b>	<b>4.1</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 12. Laboratory sample blanching of Medium Kernels from Tidewater AREC (Suffolk)  
VA, Dig 2, 2014 (6 October).**

Variety or Line	% 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	5.8	4.9	1.7	2.4	91.4	0.6	3.9
Sugg	5.7	4.9	1.7	2.0	91.0	0.6	4.8
Wynne	5.8	5.0	1.7	2.4	90.7	0.3	5.0
Sullivan	5.9	5.0	1.7	2.7	90.3	0.3	5.1
Spain	5.7	4.9	1.7	4.1	70.6	5.2	18.5
07030-1-10-1	5.8	5.0	1.7	3.2	85.3	2.7	7.3
07036-1-2-1	5.7	5.0	1.7	2.6	86.6	1.4	7.8
N09037ol	5.8	4.9	1.7	2.6	90.1	1.0	4.7
N09039olF	5.7	5.0	1.7	2.1	91.7	0.3	4.3
N09042olF	5.7	4.9	1.7	1.9	91.0	0.0	5.5
N10043olJ	5.7	4.9	1.7	2.7	87.7	2.2	5.8
N10046ol	5.8	5.0	1.7	1.6	93.5	0.5	2.8
N10047ol	5.8	5.0	1.7	2.9	89.0	1.7	4.8
N10051ol	5.8	5.0	1.7	2.0	91.6	0.7	4.1
N10066olSmT	5.8	5.0	1.7	2.3	89.4	0.7	6.0
N10078olJC	5.8	5.0	1.7	2.5	87.8	1.9	6.2
N10080olJCL	5.7	4.9	1.7	2.7	86.6	0.6	8.5
N10082olJC	5.7	4.9	1.7	2.3	89.4	0.3	6.3
N11020olJ	5.8	5.0	1.7	2.8	90.1	1.3	4.2
N11028ol	5.8	4.9	1.7	2.6	89.0	0.6	6.2
N11034ol	5.7	4.9	1.7	2.1	90.8	0.7	4.8
N11048ol	5.8	5.0	1.7	2.6	87.4	1.6	6.8
N11051olJ	5.7	4.9	1.7	2.7	86.3	1.6	7.9
N12006ol	5.8	5.0	1.7	1.9	90.2	0.5	5.8
N12007ol	5.7	4.9	1.7	2.4	89.8	0.5	5.8
N12008olCLSmT	5.7	4.9	1.7	1.9	91.2	0.0	5.3
N12009olCLT	5.8	5.0	1.7	1.8	90.3	0.2	6.1
N12010ol	5.7	4.9	1.7	1.7	91.1	0.1	5.4
N12014ol	5.7	4.9	1.7	1.3	88.5	1.0	7.6
N12015ol	5.7	4.9	1.7	1.8	89.6	0.6	6.5
<b>Mean</b>	<b>5.7</b>	<b>4.9</b>	<b>1.7</b>	<b>2.3</b>	<b>88.9</b>	<b>1.0</b>	<b>6.1</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.1</b>	<b>2.7</b>	<b>5.2</b>	<b>5.9</b>	<b>4.3</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 13. Laboratory sample blanching of Medium Kernels. Averages from both digging dates from Tidewater AREC (Suffolk) VA, 2014.**

Variety or Line	% 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	5.7	3.4	1.7	2.2	90.4	0.6	5.1
Sugg	5.7	4.9	1.7	1.9	89.7	0.5	6.3
Wynne	5.7	4.9	1.7	2.1	90.4	0.6	5.3
Sullivan	5.8	4.9	1.8	2.4	90.4	0.6	4.9
Spain	5.7	4.8	1.7	3.9	67.0	5.8	21.6
07030-1-10-1	5.8	5.0	1.7	3.0	85.8	2.9	6.7
07036-1-2-1	5.7	4.9	1.7	2.8	86.2	2.9	6.5
N09037ol	5.7	4.9	1.7	2.4	88.3	1.8	5.9
N09039olF	5.7	4.9	1.7	2.0	92.2	0.2	3.9
N09042olF	5.6	4.9	1.7	1.5	90.9	0.1	5.8
N10043olJ	5.7	4.9	1.9	2.6	87.2	1.7	6.7
N10046ol	5.7	4.9	1.7	1.9	92.8	1.0	2.7
N10047ol	5.7	5.0	1.7	2.5	87.5	2.2	6.1
N10051ol	5.7	4.9	1.7	2.2	90.9	0.9	4.4
N10066olSmT	5.7	4.9	1.7	2.0	88.5	0.9	7.0
N10078olJC	5.7	4.9	1.7	2.2	87.0	1.9	7.2
N10080olJCL	5.6	4.9	1.7	2.8	86.3	1.3	7.9
N10082olJC	5.7	4.9	1.7	2.3	88.0	1.0	7.0
N11020olJ	5.7	4.9	1.7	2.6	89.2	2.0	4.7
N11028ol	5.7	4.9	1.7	2.1	90.0	0.7	5.6
N11034ol	5.7	4.9	1.7	1.9	91.3	0.4	4.8
N11048ol	5.7	4.9	1.7	2.0	87.9	1.4	7.1
N11051olJ	5.7	4.9	1.6	2.3	85.0	2.2	8.9
N12006ol	5.7	4.9	1.7	2.2	89.6	0.6	5.9
N12007ol	5.6	4.8	1.7	2.4	89.2	0.7	6.1
N12008olCLSmT	5.6	4.8	1.7	2.1	91.5	0.6	4.1
N12009olCLT	5.7	4.9	1.7	1.9	90.4	0.8	5.2
N12010ol	5.6	4.9	1.7	1.9	90.3	0.8	5.4
N12014ol	5.7	4.9	1.7	2.1	88.0	0.8	7.4
N12015ol	5.7	4.9	1.7	2.2	90.1	0.6	5.5
<b>Mean</b>	<b>5.7</b>	<b>4.8</b>	<b>1.7</b>	<b>2.3</b>	<b>88.4</b>	<b>1.3</b>	<b>6.4</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.2</b>	<b>1.7</b>	<b>4.3</b>	<b>2.2</b>	<b>4.1</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 14. Laboratory sample blanching of Medium Kernels from Martin County, NC, Dig 1, 2014 (19 September).**

Variety or Line	% 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	5.7	4.9	1.7	1.6	88.3	1.3	7.1
Sugg	5.6	4.9	1.7	1.0	86.6	2.9	7.9
Wynne	5.6	4.9	1.6	1.0	87.7	1.8	8.0
Sullivan	5.6	4.8	1.7	1.6	85.8	2.2	8.8
Spain	5.6	4.9	1.7	1.9	48.0	17.8	30.6
07030-1-10-1	5.7	4.9	1.7	2.1	84.7	3.3	8.3
07036-1-2-1	5.6	4.9	1.7	1.6	83.3	3.2	10.2
N09037ol	5.6	4.8	1.7	0.7	85.1	1.9	10.7
N09039olF	5.7	4.9	1.7	1.6	85.6	0.5	10.7
N09042olF	5.6	4.9	1.7	0.9	86.2	1.1	10.2
N10043olJ	5.6	4.8	1.7	1.5	82.2	3.8	10.9
N10046ol	5.7	4.9	1.7	0.8	88.5	1.9	7.3
N10047ol	5.6	4.9	1.7	1.3	85.2	2.7	9.2
N10051ol	5.6	4.8	1.7	1.0	81.4	2.2	13.8
N10066olSmT	5.6	4.9	1.7	1.4	81.7	2.3	13.0
N10078olJC	5.6	4.9	1.7	1.4	83.9	3.4	9.6
N10080olJCL	5.6	4.9	1.7	2.1	83.3	3.2	9.8
N10082olJC	5.6	4.9	1.7	1.3	83.7	2.5	10.8
N11020olJ	5.6	4.9	1.7	1.4	80.7	5.4	11.0
N11028ol	5.6	4.9	1.7	1.5	88.2	0.6	8.2
N11034ol	5.6	4.8	1.7	1.1	87.5	0.4	9.4
N11048ol	5.6	4.8	1.7	2.2	84.3	1.5	10.4
N11051olJ	5.6	4.9	1.7	2.3	82.7	2.7	10.7
N12006ol	5.6	4.9	1.7	1.7	85.2	2.6	8.9
N12007ol	5.7	4.9	1.7	1.1	83.5	2.3	11.6
N12008olCLSmT	5.6	4.8	1.7	1.3	86.7	2.0	8.4
N12009olCLT	5.6	4.8	1.7	2.1	83.5	0.9	11.9
N12010ol	5.6	4.8	1.7	2.3	83.2	1.9	11.0
N12014ol	5.6	4.8	1.7	1.5	83.8	3.8	9.3
N12015ol	5.7	4.9	1.7	1.9	84.9	0.8	10.7
<b>Mean</b>	<b>5.6</b>	<b>4.8</b>	<b>1.7</b>	<b>1.5</b>	<b>83.5</b>	<b>2.7</b>	<b>10.6</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.1</b>	<b>2.1</b>	<b>9.6</b>	<b>3.8</b>	<b>8.0</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.



## Blanching Results

**Table 15. Laboratory sample blanching of Medium Kernels from Martin County, NC, Dig 2, 2014 (19 October).**

Variety or Line	% 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	5.7	4.9	1.7	2.5	89.8	0.0	6.0
Sugg	5.7	4.9	1.7	2.3	87.2	0.3	8.6
Wynne	5.7	4.9	1.7	1.7	88.3	0.2	8.2
Sullivan	5.7	4.9	1.7	1.9	88.3	0.7	7.4
Spain	5.7	4.9	1.7	2.7	59.5	5.3	30.9
07030-1-10-1	5.7	4.9	1.7	2.0	85.7	2.0	8.7
07036-1-2-1	5.7	4.9	1.7	2.5	85.7	0.9	9.3
N09037ol	5.6	4.8	1.7	2.4	87.2	1.0	7.8
N09039olF	5.8	4.9	1.7	1.3	89.1	0.0	8.0
N09042olF	5.7	4.9	1.7	2.0	88.9	0.0	7.4
N10043olJ	5.7	4.9	1.7	2.1	84.7	1.7	9.9
N10046ol	5.8	4.9	1.7	1.4	91.2	0.3	5.4
N10047ol	5.7	5.0	1.7	2.0	90.1	0.6	5.7
N10051ol	5.7	4.9	1.7	2.4	86.1	1.4	8.5
N10066olSmT	5.7	4.9	1.7	3.0	85.9	1.2	8.2
N10078olJC	5.7	4.9	1.7	2.3	86.8	0.2	9.2
N10080olJCL	5.8	5.0	2.2	3.1	86.0	0.5	8.3
N10082olJC	5.8	4.9	1.7	2.6	86.5	1.3	8.1
N11020olJ	5.7	4.9	1.8	2.3	84.3	2.7	8.9
N11028ol	5.8	5.0	1.7	2.2	88.6	0.3	7.3
N11034ol	5.8	4.9	1.7	1.7	91.1	0.0	5.5
N11048ol	5.7	4.9	1.7	2.4	86.7	0.8	8.5
N11051olJ	5.7	4.9	1.7	2.8	83.2	2.9	9.5
N12006ol	5.7	4.9	1.7	3.0	86.9	1.5	7.0
N12007ol	5.7	4.9	1.7	2.1	87.3	0.9	8.1
N12008olCLSmT	5.8	4.9	1.7	2.0	88.3	1.1	6.9
N12009olCLT	5.8	4.9	1.7	2.0	85.7	0.6	10.1
N12010ol	5.7	4.9	1.7	2.5	87.3	1.3	7.3
N12014ol	5.7	4.9	1.7	2.6	87.8	1.2	6.8
N12015ol	5.8	4.9	1.7	1.2	88.4	0.1	8.6
<b>Mean</b>	<b>5.7</b>	<b>4.9</b>	<b>1.7</b>	<b>2.2</b>	<b>86.4</b>	<b>1.0</b>	<b>8.7</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.6</b>	<b>2.6</b>	<b>4.9</b>	<b>2.7</b>	<b>5.3</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 16. Laboratory sample blanching of Medium Kernels. Averages from both digging dates from Martin County, NC, 2014.**

Variety or Line	% 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	5.7	4.9	1.7	2.0	89.1	0.7	6.6
Sugg	5.6	4.9	1.7	1.6	86.9	1.6	8.3
Wynne	5.7	4.9	1.7	1.4	88.0	1.0	8.1
Sullivan	5.6	4.8	1.7	1.8	87.1	1.4	8.1
Spain	5.6	4.9	1.7	2.3	53.8	11.5	30.8
07030-1-10-1	5.7	4.9	1.7	2.1	85.2	2.6	8.5
07036-1-2-1	5.7	4.9	1.7	2.0	84.5	2.0	9.8
N09037ol	5.6	4.8	1.7	1.5	86.2	1.4	9.2
N09039olF	5.7	4.9	1.7	1.4	87.3	0.3	9.3
N09042olF	5.7	4.9	1.7	1.5	87.5	0.6	8.8
N10043olJ	5.6	4.8	1.7	1.8	83.4	2.7	10.4
N10046ol	5.7	4.9	1.7	1.1	89.8	1.1	6.3
N10047ol	5.7	4.9	1.7	1.6	87.6	1.7	7.4
N10051ol	5.6	4.8	1.7	1.7	83.8	1.8	11.1
N10066olSmT	5.7	4.9	1.7	2.2	83.8	1.8	10.6
N10078olJC	5.6	4.9	1.7	1.8	85.3	1.8	9.4
N10080olJCL	5.7	4.9	2.0	2.6	84.6	1.8	9.0
N10082olJC	5.7	4.9	1.7	2.0	85.1	1.9	9.4
N11020olJ	5.6	4.9	1.7	1.8	82.5	4.0	9.9
N11028ol	5.7	4.9	1.7	1.8	88.4	0.4	7.7
N11034ol	5.7	4.8	1.7	1.4	89.3	0.2	7.5
N11048ol	5.6	4.8	1.7	2.3	85.5	1.1	9.4
N11051olJ	5.6	4.9	1.7	2.5	82.9	2.8	10.1
N12006ol	5.6	4.9	1.7	2.3	86.1	2.0	7.9
N12007ol	5.7	4.9	1.7	1.6	85.4	1.6	9.8
N12008olCLSmT	5.7	4.9	1.7	1.6	87.5	1.5	7.6
N12009olCLT	5.7	4.9	1.7	2.1	84.6	0.7	11.0
N12010ol	5.6	4.8	1.7	2.4	85.3	1.6	9.1
N12014ol	5.6	4.8	1.7	2.0	85.8	2.5	8.1
N12015ol	5.7	4.9	1.7	1.6	86.7	0.5	9.7
<b>Mean</b>	<b>5.6</b>	<b>4.9</b>	<b>1.7</b>	<b>1.8</b>	<b>85.0</b>	<b>1.9</b>	<b>9.6</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.3</b>	<b>1.9</b>	<b>7.0</b>	<b>4.8</b>	<b>5.3</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

Table 17. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk) VA and Martin County, NC, 2014.

Variety or Line	% 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	5.7	4.9	1.7	2.1	89.8	0.6	5.8
Sugg	5.7	4.9	1.7	1.8	88.3	1.0	7.3
Wynne	5.7	4.9	1.7	1.7	89.2	0.8	6.7
Sullivan	5.7	4.9	1.8	2.1	88.7	1.0	6.5
Spain	5.6	4.9	1.7	3.1	60.4	8.6	26.2
07030-1-10-1	5.7	4.9	1.7	2.5	85.5	2.7	7.6
07036-1-2-1	5.7	4.9	1.7	2.4	85.4	2.5	8.1
N09037ol	5.7	4.9	1.7	1.9	87.2	1.6	7.5
N09039olF	5.7	4.9	1.7	1.7	89.8	0.2	6.6
N09042olF	5.6	4.9	1.7	1.5	89.2	0.3	7.3
N10043olJ	5.6	4.9	1.8	2.2	85.3	2.2	8.6
N10046ol	5.7	4.9	1.7	1.5	91.3	1.0	4.5
N10047ol	5.7	4.9	1.7	2.1	87.5	1.9	6.8
N10051ol	5.7	4.9	1.7	1.9	87.3	1.3	7.8
N10066olSmT	5.7	4.9	1.7	2.1	86.1	1.3	8.8
N10078olJC	5.7	4.9	1.7	2.0	86.2	1.9	8.3
N10080olJCL	5.7	4.9	1.8	2.7	85.5	1.6	8.5
N10082olJC	5.7	4.9	1.7	2.1	86.6	1.5	8.2
N11020olJ	5.6	4.9	1.7	2.2	85.9	3.0	7.3
N11028ol	5.7	4.9	1.7	1.9	89.2	0.6	6.7
N11034ol	5.7	4.9	1.7	1.7	90.3	0.3	6.1
N11048ol	5.7	4.9	1.7	2.1	86.7	1.2	8.3
N11051olJ	5.7	4.9	1.7	2.4	83.9	2.5	9.5
N12006ol	5.6	4.9	1.7	2.3	87.9	1.3	6.9
N12007ol	5.6	4.9	1.7	2.0	87.3	1.1	7.9
N12008olCLSmT	5.6	4.8	1.7	1.9	89.5	1.1	5.8
N12009olCLT	5.7	4.9	1.7	2.0	87.5	0.8	8.1
N12010ol	5.6	4.9	1.7	2.2	87.8	1.2	7.3
N12014ol	5.6	4.9	1.7	2.0	86.9	1.7	7.7
N12015ol	5.7	4.9	1.7	1.9	88.4	0.5	7.6
<b>Mean</b>	<b>5.7</b>	<b>4.9</b>	<b>1.7</b>	<b>2.1</b>	<b>86.7</b>	<b>1.6</b>	<b>8.0</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.2</b>	<b>1.3</b>	<b>5.7</b>	<b>2.7</b>	<b>4.9</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 18. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk) VA, and Martin County, NC. Two-year averages (2013- 2014).**

Variety or Line	% 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	5.7	4.9	1.7	2.9	86.8	0.7	7.9
N09037ol	5.7	4.9	1.7	2.2	84.6	1.9	9.6
N09039olF	5.7	4.9	1.7	2.2	87.6	0.5	8.1
N09042olF	5.7	4.9	1.7	2.4	86.7	0.5	8.7
N10043olJ	5.7	4.9	1.8	2.8	82.8	2.6	10.1
N10046ol	5.7	4.9	1.7	2.0	85.9	1.6	8.8
N10047ol	5.7	4.9	1.7	2.1	85.1	2.4	8.8
N10051ol	5.7	4.9	1.7	2.3	84.1	1.7	10.2
N10066olSmT	5.7	4.9	1.6	2.5	84.8	1.1	10.0
N10078olJC	5.7	4.9	1.7	2.5	84.2	1.6	10.1
N10080olJCL	5.7	4.9	1.7	2.8	83.1	1.9	10.5
N10082olJC	5.7	4.9	1.6	2.5	84.1	1.9	10.0
N11020olJ	5.7	4.9	1.7	2.2	81.6	3.2	11.4
N11028ol	5.7	4.9	1.9	2.4	85.9	0.6	9.3
N11034ol	5.7	4.9	1.7	2.1	87.4	0.5	8.4
N11048ol	5.7	4.8	1.7	2.5	83.4	1.7	10.8
N11051olJ	5.7	4.9	1.7	2.8	78.6	2.7	14.3
Sullivan	5.7	4.9	1.7	2.4	85.8	1.2	8.9
Wynne	5.7	4.9	1.7	2.4	86.7	0.8	8.4
Spain	5.7	4.9	1.6	3.2	59.9	8.3	26.9
Sugg	5.7	4.9	1.7	2.4	86.4	1.1	8.4
<b>Mean</b>	<b>5.7</b>	<b>4.9</b>	<b>1.7</b>	<b>2.5</b>	<b>83.6</b>	<b>1.8</b>	<b>10.5</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.3</b>	<b>1.2</b>	<b>5.7</b>	<b>1.8</b>	<b>4.8</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Blanching Results

**Table 19. Laboratory sample blanching of Medium Kernels. Averages from Tidewater AREC (Suffolk), VA and Martin County, NC. Three-year averages (2012- 2014).**

Variety or Line	% 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	5.7	4.9	1.6	2.8	89.0	0.6	6.0
N10047ol	5.7	4.9	1.6	1.9	87.6	1.9	7.0
N10080olJCL	5.7	4.9	1.7	2.6	86.2	1.5	8.0
N09037ol	5.7	4.9	1.6	2.3	87.1	1.6	7.5
N10046ol	5.7	4.9	1.6	1.9	87.9	1.3	7.3
N10066olSmT	5.7	4.9	1.6	2.3	87.5	1.0	7.6
N10078olJC	5.7	4.9	1.6	2.3	87.4	1.1	7.5
N10082olJC	5.7	4.9	1.6	2.4	87.2	1.3	7.5
Sullivan	5.7	4.9	1.6	2.4	88.4	1.0	6.6
Wynne	5.7	4.9	1.6	2.3	88.8	0.6	6.7
<b>Mean</b>	<b>5.7</b>	<b>4.9</b>	<b>1.6</b>	<b>2.5</b>	<b>88.9</b>	<b>0.6</b>	<b>6.3</b>
<b>Tukey HSD<sup>1</sup></b>			<b>0.2</b>	<b>0.8</b>	<b>4.4</b>	<b>1.0</b>	<b>3.5</b>

<sup>1</sup> Minimum significant difference, at P=0.05 based on the Tukey HSD test.

## Fatty Acid Results

**Table 20. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 1, 2014<sup>1</sup>.**

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.7	2.4	49.8	31.1	1.3	1.3
Sugg	10.0	2.2	48.7	32.0	1.2	1.4
Wynne	6.1	2.5	78.7	6.0	1.2	1.7
Sullivan	5.6	2.4	81.0	4.0	1.2	1.8
Spain	6.8	3.8	72.9	8.3	1.7	1.5
07030-1-10-1	5.9	3.9	79.3	3.4	1.7	1.5
07036-1-2-1	6.2	4.0	78.3	3.7	1.7	1.5
N09037ol	5.8	2.2	80.5	5.0	1.1	1.7
N09039olF	6.0	2.3	80.0	4.5	1.2	1.8
N09042olF	5.9	2.3	80.7	4.4	1.1	1.8
N10043olJ	5.7	3.0	80.8	3.2	1.4	1.7
N10046ol	5.6	2.5	80.9	4.3	1.2	1.7
N10047ol	5.7	2.5	81.2	4.0	1.2	1.7
N10051ol	5.8	2.5	81.3	4.0	1.2	1.7
N10066olSmT	6.1	2.6	80.0	4.7	1.2	1.6
N10078olJC	5.6	2.5	81.1	4.0	1.3	1.8
N10080olJCL	5.6	2.3	81.6	4.0	1.2	1.8
N10082olJC	5.9	2.5	79.6	5.3	1.3	1.7
N11020olJ	5.9	2.6	79.6	5.1	1.3	1.7
N11028ol	5.8	3.0	82.2	2.9	1.4	1.4
N11034ol	5.5	2.6	81.3	4.1	1.2	1.7
N11048ol	6.0	2.5	80.5	4.3	1.3	1.7
N11051olJ	5.7	2.6	81.4	3.7	1.3	1.6
N12006ol	6.5	2.5	74.6	9.5	1.3	1.7
N12007ol	6.1	2.3	78.4	6.7	1.2	1.7
N12008olCLSmT	6.7	2.5	72.5	11.7	1.2	1.6
N12009olCLT	7.6	2.5	66.3	17.3	1.2	1.4
N12010ol	8.1	2.5	63.1	19.8	1.3	1.4
N12014ol	5.6	2.5	81.1	4.1	1.2	1.7
N12015ol	6.3	2.4	76.7	7.3	1.2	1.9
<b>Mean</b>	<b>6.3</b>	<b>2.6</b>	<b>76.5</b>	<b>7.7</b>	<b>1.3</b>	<b>1.6</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.9</b>	<b>0.5</b>	<b>6.2</b>	<b>5.5</b>	<b>1.2</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 Tukey HSD test.

## Fatty Acid Results

Table 20. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 1, 2014<sup>1</sup> (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.9	1.5	97.8	1.6	17.8	1.8	5.6
Sugg	3.0	1.5	98.4	1.5	17.9	1.8	5.7
Wynne	2.4	1.3	79.4	14.8	13.6	0.4	5.0
Sullivan	2.5	1.5	78.0	20.5	13.2	0.3	5.2
Spain	3.6	1.3	78.3	11.4	17.2	0.5	6.6
07030-1-10-1	3.1	1.2	75.3	23.3	15.8	0.2	6.0
07036-1-2-1	3.3	1.2	74.9	21.5	16.5	0.2	6.3
N09037ol	2.3	1.4	79.2	16.5	12.9	0.4	4.9
N09039olF	2.6	1.5	78.0	17.7	13.7	0.3	5.4
N09042olF	2.4	1.4	78.4	18.4	13.1	0.3	4.9
N10043olJ	2.6	1.5	76.4	25.1	14.2	0.2	5.6
N10046ol	2.4	1.3	78.4	18.8	13.1	0.3	4.9
N10047ol	2.3	1.3	78.2	20.3	13.1	0.3	4.9
N10051ol	2.2	1.3	78.2	20.5	13.0	0.3	4.7
N10066olSmT	2.4	1.4	78.2	17.1	13.7	0.3	5.0
N10078olJC	2.5	1.3	78.1	20.4	13.1	0.3	5.0
N10080olJCL	2.3	1.3	78.4	20.6	12.7	0.3	4.8
N10082olJC	2.5	1.4	78.9	16.3	13.5	0.4	5.1
N11020olJ	2.5	1.4	78.7	16.5	13.6	0.4	5.1
N11028ol	2.3	1.0	76.9	28.1	13.5	0.2	4.7
N11034ol	2.3	1.3	78.4	20.2	12.9	0.3	4.9
N11048ol	2.5	1.3	78.1	18.6	13.5	0.3	5.0
N11051olJ	2.3	1.3	77.7	22.0	13.2	0.3	4.9
N12006ol	2.6	1.4	81.8	7.9	14.3	0.7	5.3
N12007ol	2.3	1.3	80.3	12.0	13.3	0.5	4.8
N12008olCLSmT	2.4	1.4	83.8	6.2	14.3	0.8	5.1
N12009olCLT	2.4	1.3	88.1	3.8	15.0	1.2	4.9
N12010ol	2.5	1.3	89.7	3.2	15.7	1.3	5.1
N12014ol	2.4	1.3	78.2	19.9	13.1	0.3	5.0
N12015ol	2.6	1.5	80.1	10.8	14.1	0.5	5.4
<b>Mean</b>	<b>2.6</b>	<b>1.4</b>	<b>80.5</b>	<b>15.9</b>	<b>14.1</b>	<b>0.5</b>	<b>5.2</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.3</b>	<b>0.3</b>	<b>4.3</b>	<b>12.2</b>	<b>1.1</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 2, 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.6	2.3	49.6	31.8	1.2	1.4
Sugg	9.4	2.4	51.5	30.1	1.3	1.3
Wynne	6.0	2.3	79.3	5.7	1.2	1.9
Sullivan	5.6	2.2	80.6	4.7	1.2	1.9
Spain	6.4	3.5	75.0	7.5	1.6	1.5
07030-1-10-1	6.2	4.3	75.9	6.1	1.8	1.5
07036-1-2-1	6.1	3.8	79.3	3.4	1.7	1.4
N09037ol	5.7	2.2	80.1	5.3	1.1	1.8
N09039olF	5.9	2.3	80.6	4.3	1.2	1.9
N09042olF	5.7	2.0	81.2	4.4	1.1	2.0
N10043olJ	5.6	3.1	81.1	3.1	1.4	1.7
N10046ol	5.5	2.5	81.3	4.0	1.2	1.8
N10047ol	5.6	2.5	81.4	3.9	1.2	1.8
N10051ol	5.6	2.5	81.7	3.8	1.2	1.7
N10066olSmT	5.8	2.5	81.0	4.1	1.2	1.7
N10078olJC	5.3	2.3	81.8	4.0	1.1	1.8
N10080olJCL	5.5	2.3	80.6	4.9	1.2	1.9
N10082olJC	5.6	2.4	81.5	4.2	1.2	1.7
N11020olJ	5.6	2.4	81.3	3.9	1.2	1.8
N11028ol	5.8	3.0	81.8	3.0	1.4	1.5
N11034ol	5.4	2.5	81.5	3.9	1.2	1.8
N11048ol	5.7	2.4	81.7	3.7	1.2	1.7
N11051olJ	5.5	2.7	82.1	3.5	1.2	1.6
N12006ol	7.7	2.1	71.3	13.6	1.0	1.5
N12007ol	5.8	2.3	79.8	5.7	1.2	1.7
N12008olCLSmT	6.4	2.4	73.8	10.7	1.2	1.7
N12009olCLT	7.8	2.3	62.7	20.7	1.2	1.5
N12010ol	7.3	2.4	67.3	16.5	1.2	1.5
N12014ol	5.4	2.4	80.8	4.4	1.2	1.8
N12015ol	6.0	2.2	78.7	5.9	1.2	1.9
<b>Mean</b>	<b>6.2</b>	<b>2.5</b>	<b>76.9</b>	<b>7.7</b>	<b>1.2</b>	<b>1.7</b>
<b>Tukey HSD<sup>2</sup></b>	<b>1.2</b>	<b>0.7</b>	<b>6.3</b>	<b>5.5</b>	<b>0.3</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 Tukey HSD test.



## Fatty Acid Results

Table 21. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Tidewater AREC (Suffolk), VA Dig 2, 2014<sup>1</sup> (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.7	1.4	98.8	1.6	17.3	1.8	5.4
Sugg	2.7	1.4	97.4	1.7	17.2	1.8	5.4
Wynne	2.4	1.3	79.6	14.3	13.1	0.4	4.9
Sullivan	2.4	1.5	78.9	17.2	12.8	0.4	5.0
Spain	3.2	1.2	78.8	12.4	15.9	0.5	6.0
07030-1-10-1	3.0	1.2	77.1	12.4	16.5	0.4	6.0
07036-1-2-1	3.1	1.2	75.2	23.3	15.9	0.2	5.9
N09037ol	2.4	1.4	79.5	15.7	12.8	0.4	4.9
N09039olF	2.5	1.5	78.1	19.1	13.3	0.3	5.2
N09042olF	2.4	1.4	78.9	18.7	12.5	0.4	4.8
N10043olJ	2.5	1.5	76.5	26.3	14.1	0.2	5.4
N10046ol	2.3	1.3	78.3	20.2	12.8	0.3	4.8
N10047ol	2.3	1.3	78.1	21.0	13.0	0.3	4.9
N10051ol	2.2	1.4	78.2	21.6	12.8	0.3	4.8
N10066olSmT	2.3	1.4	78.1	19.7	13.2	0.3	4.9
N10078olJC	2.3	1.3	78.6	20.7	12.4	0.3	4.8
N10080olJCL	2.4	1.3	79.3	16.8	12.7	0.4	4.9
N10082olJC	2.2	1.2	78.7	19.5	12.6	0.3	4.5
N11020olJ	2.4	1.4	78.2	20.7	12.9	0.3	4.9
N11028ol	2.3	1.3	76.7	27.8	13.7	0.2	5.0
N11034ol	2.3	1.3	78.4	20.8	12.7	0.3	4.9
N11048ol	2.3	1.3	78.0	22.4	12.9	0.3	4.8
N11051olJ	2.1	1.2	77.9	23.5	12.8	0.3	4.6
N12006ol	1.9	0.9	86.0	5.3	13.6	1.0	3.8
N12007ol	2.2	1.2	80.0	14.1	12.7	0.5	4.6
N12008olCLSmT	2.4	1.4	83.3	7.5	13.8	0.8	5.1
N12009olCLT	2.5	1.3	90.9	3.0	15.2	1.4	5.0
N12010ol	2.4	1.3	87.7	4.1	14.6	1.1	4.9
N12014ol	2.5	1.4	78.5	18.6	13.0	0.3	5.1
N12015ol	2.6	1.5	79.4	13.5	13.5	0.4	5.3
<b>Mean</b>	<b>2.4</b>	<b>1.3</b>	<b>80.8</b>	<b>16.1</b>	<b>13.7</b>	<b>0.5</b>	<b>5.0</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.8</b>	<b>0.5</b>	<b>4.3</b>	<b>10.1</b>	<b>1.3</b>	<b>0.3</b>	<b>1.5</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Averages of all Digs from Tidewater AREC (Suffolk), VA , 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.7	2.3	49.7	31.5	1.3	1.3
Sugg	9.7	2.3	50.1	31.1	1.3	1.3
Wynne	6.0	2.4	79.0	5.8	1.2	1.8
Sullivan	5.6	2.3	80.8	4.3	1.2	1.8
Spain	6.6	3.7	74.0	7.9	1.6	1.5
07030-1-10-1	6.0	4.1	77.6	4.8	1.7	1.5
07036-1-2-1	6.2	3.9	78.8	3.6	1.7	1.4
N09037ol	5.8	2.2	80.3	5.2	1.1	1.7
N09039olF	5.9	2.3	80.3	4.4	1.2	1.8
N09042olF	5.8	2.1	80.9	4.4	1.1	1.9
N10043olJ	5.6	3.1	80.9	3.2	1.4	1.7
N10046ol	5.6	2.5	81.1	4.2	1.2	1.7
N10047ol	5.6	2.5	81.3	3.9	1.2	1.7
N10051ol	5.7	2.5	81.5	3.9	1.2	1.7
N10066olSmT	5.9	2.6	80.5	4.4	1.2	1.7
N10078olJC	5.5	2.4	81.5	4.0	1.2	1.8
N10080olJCL	5.5	2.3	81.1	4.4	1.2	1.8
N10082olJC	5.8	2.4	80.5	4.7	1.2	1.7
N11020olJ	5.8	2.5	80.5	4.5	1.2	1.8
N11028ol	5.8	3.0	82.0	2.9	1.4	1.5
N11034ol	5.5	2.5	81.4	4.0	1.2	1.7
N11048ol	5.9	2.4	81.1	4.0	1.2	1.7
N11051olJ	5.6	2.6	81.7	3.6	1.2	1.6
N12006ol	7.1	2.3	72.9	11.5	1.1	1.6
N12007ol	5.9	2.3	79.1	6.2	1.2	1.7
N12008olCLSmT	6.6	2.4	73.1	11.2	1.2	1.7
N12009olCLT	7.7	2.4	64.5	19.0	1.2	1.4
N12010ol	7.7	2.5	65.2	18.2	1.2	1.4
N12014ol	5.5	2.5	81.0	4.2	1.2	1.8
N12015ol	6.2	2.3	77.7	6.6	1.2	1.9
<b>Mean</b>	<b>6.3</b>	<b>2.6</b>	<b>76.7</b>	<b>7.7</b>	<b>1.3</b>	<b>1.7</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.8</b>	<b>0.5</b>	<b>4.4</b>	<b>3.8</b>	<b>0.2</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 Tukey HSD test.

## Fatty Acid Results

Table 22. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of all Digs from Tidewater AREC (Suffolk), VA, 2014<sup>1</sup> (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.8	1.5	98.3	1.6	17.5	1.8	5.5
Sugg	2.9	1.4	97.9	1.6	17.5	1.8	5.6
Wynne	2.4	1.3	79.5	14.6	13.4	0.4	4.9
Sullivan	2.4	1.5	78.4	18.9	13.0	0.3	5.1
Spain	3.4	1.3	78.5	11.9	16.6	0.5	6.3
07030-1-10-1	3.1	1.2	76.2	17.9	16.1	0.3	6.0
07036-1-2-1	3.2	1.2	75.1	22.4	16.2	0.2	6.1
N09037ol	2.3	1.4	79.3	16.1	12.8	0.4	4.9
N09039olF	2.6	1.5	78.1	18.4	13.5	0.3	5.3
N09042olF	2.4	1.4	78.7	18.6	12.8	0.3	4.9
N10043olJ	2.6	1.5	76.4	25.7	14.2	0.2	5.5
N10046ol	2.3	1.3	78.4	19.5	13.0	0.3	4.9
N10047ol	2.3	1.3	78.1	20.6	13.0	0.3	4.9
N10051ol	2.2	1.3	78.2	21.0	12.9	0.3	4.8
N10066olSmT	2.4	1.4	78.2	18.4	13.5	0.3	5.0
N10078olJC	2.4	1.3	78.4	20.6	12.8	0.3	4.9
N10080olJCL	2.4	1.3	78.8	18.7	12.7	0.4	4.8
N10082olJC	2.3	1.3	78.8	17.9	13.0	0.4	4.8
N11020olJ	2.4	1.4	78.4	18.6	13.3	0.3	5.0
N11028ol	2.3	1.1	76.8	27.9	13.6	0.2	4.9
N11034ol	2.3	1.3	78.4	20.5	12.8	0.3	4.9
N11048ol	2.4	1.3	78.0	20.5	13.2	0.3	4.9
N11051olJ	2.2	1.3	77.8	22.8	13.0	0.3	4.8
N12006ol	2.2	1.2	83.9	6.6	13.9	0.8	4.5
N12007ol	2.3	1.3	80.1	13.0	13.0	0.5	4.7
N12008olCLSmT	2.4	1.4	83.6	6.9	14.0	0.8	5.1
N12009olCLT	2.4	1.3	89.5	3.4	15.1	1.3	5.0
N12010ol	2.5	1.3	88.7	3.6	15.2	1.2	5.0
N12014ol	2.5	1.4	78.4	19.3	13.0	0.3	5.0
N12015ol	2.6	1.5	79.7	12.1	13.8	0.5	5.3
<b>Mean</b>	<b>2.5</b>	<b>1.3</b>	<b>80.6</b>	<b>16.0</b>	<b>13.9</b>	<b>0.5</b>	<b>5.1</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.4</b>	<b>0.3</b>	<b>3.0</b>	<b>7.7</b>	<b>1.1</b>	<b>0.2</b>	<b>0.8</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 1, 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	10.0	2.5	49.4	31.2	1.3	1.2
Sugg	9.8	2.3	50.3	30.6	1.3	1.3
Wynne	6.2	2.3	79.4	5.1	1.2	1.7
Sullivan	5.9	2.3	79.7	4.8	1.2	1.8
Spain	6.6	3.7	74.4	7.1	1.7	1.6
07030-1-10-1	6.4	3.4	77.9	4.9	1.5	1.5
07036-1-2-1	6.5	3.6	78.1	4.3	1.6	1.4
N09037ol	6.2	2.4	78.6	6.1	1.2	1.7
N09039olF	6.4	2.3	79.7	4.9	1.1	1.7
N09042olF	6.0	2.2	81.1	4.3	1.1	1.7
N10043olJ	5.8	2.8	80.4	3.5	1.3	1.8
N10046ol	5.8	2.5	80.4	4.5	1.2	1.6
N10047ol	5.8	2.3	80.8	4.3	1.2	1.7
N10051ol	6.0	2.3	80.5	4.3	1.2	1.8
N10066olSmT	6.2	2.3	79.7	4.6	1.2	1.8
N10078olJC	5.8	2.4	79.8	5.0	1.2	1.8
N10080olJCL	5.7	2.2	80.6	4.3	1.2	1.8
N10082olJC	6.1	2.4	78.6	6.0	1.2	1.7
N11020olJ	5.8	2.4	80.4	4.2	1.3	1.8
N11028ol	6.0	2.8	80.9	3.6	1.4	1.5
N11034ol	5.8	2.5	81.2	4.1	1.2	1.7
N11048ol	6.1	2.3	80.8	4.1	1.2	1.7
N11051olJ	6.0	2.4	80.5	4.4	1.2	1.7
N12006ol	6.8	2.3	73.9	10.0	1.2	1.7
N12007ol	5.9	2.4	79.8	5.4	1.2	1.6
N12008olCLSmT	6.3	2.3	76.6	8.0	1.2	1.6
N12009olCLT	7.6	2.3	66.5	17.0	1.2	1.5
N12010ol	7.7	2.4	65.4	17.7	1.2	1.4
N12014ol	5.7	2.5	80.3	4.3	1.3	1.7
N12015ol	6.5	2.4	76.6	7.3	1.2	1.8
<b>Mean</b>	<b>6.4</b>	<b>2.5</b>	<b>76.4</b>	<b>7.7</b>	<b>1.3</b>	<b>1.7</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.6</b>	<b>0.4</b>	<b>4.3</b>	<b>3.7</b>	<b>0.2</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 Tukey HSD test.

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**Fatty Acid Results**

**Table 23. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 1, 2014<sup>1</sup> (cont.).**

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	3.0	1.5	97.4	1.6	18.2	1.7	5.7
Sugg	3.0	1.5	97.2	1.6	17.9	1.7	5.8
Wynne	2.6	1.4	78.5	15.8	13.7	0.4	5.2
Sullivan	2.6	1.6	78.4	16.8	13.6	0.4	5.4
Spain	3.6	1.4	77.5	11.6	16.9	0.4	6.7
07030-1-10-1	3.1	1.2	76.8	15.9	15.6	0.3	5.8
07036-1-2-1	3.3	1.3	75.7	18.2	16.2	0.3	6.1
N09037ol	2.4	1.4	79.6	13.7	13.5	0.5	5.0
N09039olF	2.5	1.4	78.3	16.4	13.7	0.4	5.1
N09042olF	2.3	1.3	78.5	19.2	12.9	0.3	4.7
N10043olJ	2.8	1.6	76.6	23.2	14.3	0.2	5.7
N10046ol	2.5	1.4	78.3	17.9	13.4	0.3	5.1
N10047ol	2.4	1.4	78.3	18.7	13.2	0.3	5.1
N10051ol	2.5	1.5	78.1	18.7	13.4	0.3	5.2
N10066olSmT	2.7	1.5	77.9	17.3	13.9	0.3	5.4
N10078olJC	2.6	1.5	78.7	16.1	13.4	0.4	5.3
N10080olJCL	2.6	1.5	78.2	18.7	13.3	0.3	5.3
N10082olJC	2.6	1.5	79.3	13.2	13.8	0.4	5.3
N11020olJ	2.7	1.5	77.8	19.2	13.6	0.3	5.4
N11028ol	2.5	1.3	77.0	22.8	14.0	0.3	5.2
N11034ol	2.4	1.2	78.3	19.8	13.0	0.3	4.7
N11048ol	2.5	1.3	78.0	19.6	13.4	0.3	5.0
N11051olJ	2.4	1.3	78.3	18.2	13.3	0.3	4.9
N12006ol	2.7	1.5	82.1	7.4	14.5	0.7	5.4
N12007ol	2.4	1.4	79.2	14.9	13.2	0.4	4.9
N12008olCLSmT	2.5	1.5	80.9	9.8	13.8	0.6	5.2
N12009olCLT	2.5	1.4	87.8	3.9	15.1	1.1	5.2
N12010ol	2.6	1.4	88.1	3.7	15.4	1.2	5.3
N12014ol	2.7	1.4	77.9	18.6	13.6	0.3	5.4
N12015ol	2.7	1.5	79.9	10.9	14.3	0.5	5.4
<b>Mean</b>	<b>2.7</b>	<b>1.4</b>	<b>80.3</b>	<b>14.8</b>	<b>14.3</b>	<b>0.5</b>	<b>5.3</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.3</b>	<b>0.3</b>	<b>2.8</b>	<b>7.8</b>	<b>1.0</b>	<b>0.2</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 2, 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.4	2.2	50.8	31.0	1.2	1.3
Sugg	9.1	2.4	52.5	29.7	1.2	1.2
Wynne	6.0	2.4	78.6	6.5	1.2	1.6
Sullivan	5.4	2.2	81.2	4.3	1.1	1.9
Spain	6.1	3.6	76.1	6.8	1.6	1.5
07030-1-10-1	5.8	3.7	78.4	5.1	1.6	1.4
07036-1-2-1	6.1	3.6	80.0	3.3	1.6	1.4
N09037ol	5.6	2.2	81.7	4.1	1.1	1.7
N09039olF	5.9	2.1	81.4	4.1	1.1	1.7
N09042olF	5.6	2.1	81.6	4.2	1.1	1.8
N10043olJ	5.5	2.8	81.1	3.5	1.4	1.8
N10046ol	5.4	2.6	81.5	4.0	1.2	1.7
N10047ol	5.5	2.4	81.7	3.8	1.2	1.6
N10051ol	5.6	2.4	82.0	3.8	1.1	1.7
N10066olSmT	5.8	2.5	80.6	4.7	1.2	1.6
N10078olJC	5.2	2.3	82.6	3.5	1.1	1.7
N10080olJCL	5.3	2.1	82.3	3.9	1.1	1.8
N10082olJC	5.5	2.4	81.2	4.6	1.2	1.6
N11020olJ	5.4	2.4	82.0	3.6	1.2	1.7
N11028ol	5.7	2.9	81.8	3.3	1.4	1.5
N11034ol	5.3	2.4	82.3	3.6	1.2	1.7
N11048ol	5.8	2.3	81.0	4.5	1.2	1.7
N11051olJ	5.5	2.5	82.0	3.6	1.2	1.7
N12006ol	7.1	2.3	69.9	14.2	1.2	1.6
N12007ol	5.7	2.5	79.9	5.7	1.2	1.6
N12008olCLSmT	6.2	2.2	75.3	9.8	1.1	1.6
N12009olCLT	7.6	2.3	64.9	19.0	1.2	1.4
N12010ol	7.6	2.4	63.8	19.7	1.2	1.5
N12014ol	5.5	2.4	81.4	4.2	1.2	1.7
N12015ol	6.2	2.4	77.3	7.2	1.2	1.7
<b>Mean</b>	<b>6.1</b>	<b>2.5</b>	<b>77.2</b>	<b>7.6</b>	<b>1.2</b>	<b>1.6</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.7</b>	<b>0.3</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 Tukey HSD test.

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**Fatty Acid Results**

**Table 24. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Martin County, NC Dig 2, 2014<sup>1</sup> (cont.).**

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.7	1.4	98.4	1.6	16.9	1.8	5.3
Sugg	2.6	1.3	97.5	1.8	16.6	1.8	5.1
Wynne	2.3	1.4	80.1	12.3	13.3	0.5	4.9
Sullivan	2.4	1.5	78.8	19.0	12.6	0.3	5.0
Spain	3.0	1.3	78.4	12.1	15.6	0.4	5.8
07030-1-10-1	2.8	1.2	77.3	16.0	15.1	0.3	5.6
07036-1-2-1	2.9	1.1	75.7	24.1	15.3	0.2	5.6
N09037ol	2.2	1.3	78.7	19.9	12.5	0.3	4.7
N09039olF	2.3	1.4	78.5	19.8	12.8	0.3	4.8
N09042olF	2.2	1.4	78.8	19.6	12.4	0.3	4.7
N10043olJ	2.5	1.5	77.2	23.9	13.6	0.3	5.3
N10046ol	2.3	1.3	78.2	20.6	12.9	0.3	4.9
N10047ol	2.3	1.4	78.2	21.4	12.8	0.3	4.9
N10051ol	2.2	1.4	78.3	21.7	12.6	0.3	4.7
N10066olSmT	2.2	1.4	78.7	17.5	13.1	0.4	4.8
N10078olJC	2.2	1.3	78.6	23.5	12.1	0.3	4.6
N10080olJCL	2.2	1.3	78.9	21.2	12.1	0.3	4.6
N10082olJC	2.2	1.3	79.1	18.0	12.6	0.4	4.7
N11020olJ	2.3	1.3	78.1	22.8	12.7	0.3	4.8
N11028ol	2.3	1.2	77.2	24.9	13.5	0.2	4.9
N11034ol	2.2	1.3	78.3	22.9	12.4	0.3	4.7
N11048ol	2.3	1.3	78.8	18.1	12.8	0.4	4.8
N11051olJ	2.2	1.4	78.1	22.7	12.7	0.3	4.7
N12006ol	2.5	1.4	85.9	4.9	14.4	1.0	5.0
N12007ol	2.2	1.3	79.8	14.1	12.8	0.4	4.6
N12008olCLSmT	2.3	1.4	83.0	7.8	13.3	0.7	4.8
N12009olCLT	2.4	1.3	89.8	3.5	14.7	1.3	4.8
N12010ol	2.5	1.4	90.1	3.3	15.1	1.3	5.1
N12014ol	2.3	1.3	78.6	19.5	12.8	0.3	4.9
N12015ol	2.5	1.5	80.4	11.6	13.7	0.5	5.2
<b>Mean</b>	<b>2.4</b>	<b>1.3</b>	<b>80.9</b>	<b>16.3</b>	<b>13.5</b>	<b>0.5</b>	<b>4.9</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.2</b>	<b>0.2</b>	<b>3.0</b>	<b>10.3</b>	<b>0.9</b>	<b>0.3</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Martin County, NC, 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.7	2.3	50.1	31.1	1.3	1.3
Sugg	9.4	2.3	51.4	30.1	1.3	1.3
Wynne	6.1	2.4	79.0	5.8	1.2	1.7
Sullivan	5.7	2.2	80.5	4.6	1.2	1.9
Spain	6.4	3.7	75.3	6.9	1.6	1.5
07030-1-10-1	6.1	3.5	78.2	5.0	1.6	1.5
07036-1-2-1	6.3	3.6	79.1	3.8	1.6	1.4
N09037ol	5.9	2.3	80.2	5.1	1.2	1.7
N09039olF	6.1	2.2	80.5	4.5	1.1	1.7
N09042olF	5.8	2.2	81.3	4.2	1.1	1.8
N10043olJ	5.6	2.8	80.7	3.5	1.3	1.8
N10046ol	5.6	2.6	81.0	4.2	1.2	1.6
N10047ol	5.7	2.4	81.3	4.1	1.2	1.7
N10051ol	5.8	2.3	81.2	4.0	1.2	1.7
N10066olSmT	6.0	2.4	80.2	4.6	1.2	1.7
N10078olJC	5.5	2.3	81.2	4.3	1.2	1.8
N10080olJCL	5.5	2.2	81.4	4.1	1.1	1.8
N10082olJC	5.8	2.4	79.9	5.3	1.2	1.7
N11020olJ	5.6	2.4	81.2	3.9	1.2	1.7
N11028ol	5.9	2.8	81.4	3.4	1.4	1.5
N11034ol	5.6	2.4	81.8	3.9	1.2	1.7
N11048ol	6.0	2.3	80.9	4.3	1.2	1.7
N11051olJ	5.8	2.4	81.3	4.0	1.2	1.7
N12006ol	6.9	2.3	71.9	12.1	1.2	1.6
N12007ol	5.8	2.4	79.8	5.5	1.2	1.6
N12008olCLSmT	6.3	2.3	76.0	8.9	1.2	1.6
N12009olCLT	7.6	2.3	65.7	18.0	1.2	1.4
N12010ol	7.7	2.4	64.6	18.7	1.2	1.5
N12014ol	5.6	2.5	80.9	4.3	1.2	1.7
N12015ol	6.3	2.4	77.0	7.3	1.2	1.8
<b>Mean</b>	<b>6.3</b>	<b>2.5</b>	<b>76.8</b>	<b>7.6</b>	<b>1.2</b>	<b>1.6</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.8</b>	<b>0.3</b>	<b>3.6</b>	<b>2.8</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 Tukey HSD test.



## Fatty Acid Results

Table 25. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Average of Digs from Martin County, NC, 2014<sup>1</sup> (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.8	1.5	97.9	1.6	17.6	1.8	5.5
Sugg	2.8	1.4	97.4	1.7	17.2	1.8	5.4
Wynne	2.5	1.4	79.3	14.0	13.5	0.4	5.1
Sullivan	2.5	1.5	78.6	17.9	13.1	0.3	5.2
Spain	3.3	1.3	78.0	11.9	16.3	0.4	6.2
07030-1-10-1	3.0	1.2	77.0	15.9	15.4	0.3	5.7
07036-1-2-1	3.1	1.2	75.7	21.2	15.7	0.2	5.9
N09037ol	2.3	1.4	79.1	16.8	13.0	0.4	4.8
N09039olF	2.4	1.4	78.4	18.1	13.2	0.3	4.9
N09042olF	2.3	1.4	78.6	19.4	12.7	0.3	4.7
N10043olJ	2.6	1.5	76.9	23.5	14.0	0.3	5.5
N10046ol	2.4	1.4	78.3	19.2	13.2	0.3	5.0
N10047ol	2.4	1.4	78.3	20.1	13.0	0.3	5.0
N10051ol	2.3	1.4	78.2	20.2	13.0	0.3	4.9
N10066olSmT	2.5	1.5	78.3	17.4	13.5	0.3	5.1
N10078olJC	2.4	1.4	78.7	19.8	12.7	0.3	4.9
N10080olJCL	2.4	1.4	78.5	20.0	12.7	0.3	5.0
N10082olJC	2.4	1.4	79.2	15.6	13.2	0.4	5.0
N11020olJ	2.5	1.4	78.0	21.0	13.2	0.3	5.1
N11028ol	2.4	1.3	77.1	23.8	13.7	0.3	5.0
N11034ol	2.3	1.3	78.3	21.3	12.7	0.3	4.7
N11048ol	2.4	1.3	78.4	18.8	13.1	0.3	4.9
N11051olJ	2.3	1.3	78.2	20.5	13.0	0.3	4.8
N12006ol	2.6	1.5	84.0	6.2	14.4	0.8	5.2
N12007ol	2.3	1.4	79.5	14.5	13.0	0.4	4.8
N12008olCLSmT	2.4	1.4	82.0	8.8	13.6	0.7	5.0
N12009olCLT	2.4	1.4	88.8	3.7	14.9	1.2	5.0
N12010ol	2.5	1.4	89.1	3.5	15.3	1.2	5.2
N12014ol	2.5	1.4	78.3	19.1	13.2	0.3	5.1
N12015ol	2.6	1.5	80.2	11.3	14.0	0.5	5.3
<b>Mean</b>	<b>2.5</b>	<b>1.4</b>	<b>80.6</b>	<b>15.6</b>	<b>13.9</b>	<b>0.5</b>	<b>5.1</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.5</b>	<b>0.2</b>	<b>2.3</b>	<b>6.9</b>	<b>1.4</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Rocky Mount, NC, 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.4	2.1	51.0	30.8	1.2	1.3
Sugg	9.3	2.1	52.1	30.0	1.2	1.3
Wynne	5.7	2.3	80.8	4.8	1.2	1.6
Sullivan	5.5	2.3	81.4	4.1	1.2	1.8
Spain	6.3	3.5	75.7	7.4	1.6	1.5
07030-1-10-1	5.8	3.5	79.7	4.2	1.6	1.4
07036-1-2-1	5.9	3.6	80.0	3.2	1.6	1.4
N09037ol	5.5	2.1	81.6	4.4	1.1	1.8
N09039olF	5.7	2.2	81.5	4.1	1.1	1.7
N09042olF	5.5	2.1	82.9	3.4	1.1	1.7
N10043olJ	5.5	2.7	82.0	3.0	1.3	1.8
N10046ol	5.5	2.4	81.7	3.9	1.2	1.6
N10047ol	5.5	2.3	82.2	3.6	1.2	1.7
N10051ol	5.6	2.3	82.2	3.7	1.1	1.7
N10066olSmT	5.8	2.2	80.9	4.6	1.1	1.7
N10078olJC	5.2	2.2	82.9	3.3	1.1	1.7
N10080olJCL	5.2	2.2	82.8	3.5	1.1	1.7
N10082olJC	5.6	2.2	81.4	4.4	1.2	1.7
N11020olJ	5.5	2.3	81.2	4.5	1.2	1.7
N11028ol	5.7	2.6	82.7	2.9	1.3	1.5
N11034ol	5.3	2.3	82.6	3.7	1.2	1.6
N11048ol	5.6	2.3	82.3	3.6	1.1	1.6
N11051olJ	5.6	2.2	82.4	3.6	1.1	1.7
N12006ol	6.3	2.1	75.3	9.5	1.1	1.7
N12007ol	5.7	2.4	80.1	5.7	1.1	1.6
N12008olCLSmT	6.2	2.4	75.2	9.7	1.2	1.6
N12009olCLT	7.1	2.4	68.7	15.6	1.2	1.4
N12010ol	7.2	2.3	67.8	16.3	1.2	1.5
N12014ol	5.4	2.2	82.0	3.8	1.1	1.8
N12015ol	5.8	2.3	79.9	5.3	1.2	1.8
<b>Mean</b>	<b>6.0</b>	<b>2.4</b>	<b>78.1</b>	<b>7.0</b>	<b>1.2</b>	<b>1.6</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.6</b>	<b>0.4</b>	<b>4.9</b>	<b>4.2</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 Tukey HSD test.

## Fatty Acid Results

Table 26. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Rocky Mount, NC, 2014<sup>1</sup> (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.7	1.5	98.2	1.7	17.0	1.8	5.4
Sugg	2.7	1.4	97.8	1.7	16.6	1.8	5.3
Wynne	2.2	1.3	79.2	18.3	12.7	0.4	4.7
Sullivan	2.3	1.4	78.6	20.1	12.6	0.3	4.9
Spain	2.9	1.1	79.1	10.7	15.4	0.5	5.6
07030-1-10-1	2.7	1.2	76.9	19.5	14.7	0.3	5.5
07036-1-2-1	3.0	1.2	75.4	25.0	15.4	0.2	5.9
N09037ol	2.2	1.4	79.1	18.8	12.3	0.4	4.7
N09039olF	2.2	1.4	78.5	20.4	12.7	0.3	4.8
N09042olF	2.1	1.3	78.4	24.7	12.1	0.3	4.5
N10043olJ	2.4	1.4	77.1	28.0	13.2	0.2	5.1
N10046ol	2.3	1.3	78.4	21.0	12.7	0.3	4.8
N10047ol	2.3	1.3	78.3	22.6	12.5	0.3	4.8
N10051ol	2.1	1.3	78.4	22.3	12.4	0.3	4.6
N10066olSmT	2.3	1.4	78.9	18.5	12.8	0.4	4.8
N10078olJC	2.2	1.3	78.5	24.9	12.0	0.3	4.7
N10080olJCL	2.2	1.3	78.6	23.7	12.0	0.3	4.6
N10082olJC	2.2	1.3	78.9	18.7	12.5	0.4	4.7
N11020olJ	2.2	1.3	79.0	19.3	12.6	0.4	4.7
N11028ol	2.1	1.1	77.3	28.2	12.9	0.2	4.6
N11034ol	2.1	1.2	78.8	22.6	12.1	0.3	4.5
N11048ol	2.1	1.3	78.3	23.0	12.5	0.3	4.6
N11051olJ	2.1	1.3	78.4	23.0	12.3	0.3	4.5
N12006ol	2.5	1.4	82.6	8.3	13.4	0.7	5.0
N12007ol	2.1	1.3	80.0	15.2	12.6	0.4	4.5
N12008olCLSmT	2.3	1.4	82.7	7.8	13.5	0.7	4.9
N12009olCLT	2.3	1.3	87.3	4.4	14.2	1.1	4.8
N12010ol	2.4	1.3	87.7	4.2	14.4	1.1	4.9
N12014ol	2.3	1.4	78.5	21.9	12.5	0.3	4.8
N12015ol	2.4	1.4	79.3	15.3	13.0	0.4	5.0
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>80.6</b>	<b>17.8</b>	<b>13.3</b>	<b>0.5</b>	<b>4.9</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>3.1</b>	<b>13.7</b>	<b>0.9</b>	<b>0.3</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Bladen County, NC, 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.5	2.5	51.2	30.3	1.3	1.3
Sugg	9.0	2.5	54.8	27.4	1.3	1.2
Wynne	6.2	2.6	77.8	7.1	1.3	1.5
Sullivan	5.6	2.4	81.7	3.5	1.2	1.7
Spain	6.3	3.9	75.4	7.1	1.7	1.4
07030-1-10-1	6.0	3.8	78.4	5.0	1.6	1.4
07036-1-2-1	6.2	3.7	79.8	3.3	1.6	1.4
N09037ol	5.6	2.4	81.6	4.1	1.2	1.6
N09039olF	5.8	2.4	81.6	3.7	1.2	1.6
N09042olF	5.6	2.4	82.7	3.2	1.2	1.6
N10043olJ	5.6	2.8	81.5	3.0	1.4	1.8
N10046ol	5.7	2.7	81.8	3.7	1.2	1.5
N10047ol	5.7	2.5	81.8	3.6	1.2	1.6
N10051ol	5.8	2.6	81.9	3.4	1.2	1.6
N10066olSmT	5.7	2.6	81.8	3.6	1.2	1.6
N10078olJC	5.3	2.3	82.8	3.4	1.1	1.6
N10080olJCL	5.3	2.3	82.8	3.2	1.2	1.7
N10082olJC	5.5	2.5	81.7	3.8	1.2	1.6
N11020olJ	5.5	2.5	82.4	3.2	1.2	1.7
N11028ol	5.8	2.9	82.9	2.5	1.4	1.4
N11034ol	5.4	2.5	82.3	3.5	1.2	1.6
N11048ol	5.7	2.5	82.3	3.5	1.2	1.6
N11051olJ	5.5	2.6	82.5	3.0	1.2	1.6
N12006ol	6.3	2.3	76.7	8.3	1.2	1.6
N12007ol	5.7	2.5	81.0	4.8	1.2	1.6
N12008olCLSmT	6.2	2.5	76.9	8.2	1.2	1.5
N12009olCLT	7.4	2.6	66.7	17.2	1.3	1.3
N12010ol	7.0	2.6	71.4	12.9	1.2	1.4
N12014ol	5.5	2.6	81.4	4.0	1.2	1.6
N12015ol	6.4	2.5	76.4	8.1	1.2	1.6
<b>Mean</b>	<b>6.1</b>	<b>2.7</b>	<b>78.1</b>	<b>6.7</b>	<b>1.3</b>	<b>1.5</b>
<b>Tukey HSD<sup>2</sup></b>	<b>1.2</b>	<b>0.3</b>	<b>8.7</b>	<b>7.5</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 Tukey HSD test.

## Fatty Acid Results

Table 27. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Bladen County, NC, 2014<sup>1</sup> (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.6	1.4	97.5	1.7	17.3	1.8	5.3
Sugg	2.5	1.3	95.5	2.0	16.6	1.7	5.1
Wynne	2.3	1.3	80.4	11.8	13.6	0.5	4.8
Sullivan	2.3	1.4	77.8	23.5	13.0	0.3	4.9
Spain	3.0	1.2	78.2	12.5	16.1	0.4	5.9
07030-1-10-1	2.7	1.1	77.2	15.8	15.2	0.3	5.4
07036-1-2-1	2.9	1.2	75.4	24.2	15.5	0.2	5.7
N09037ol	2.2	1.4	78.5	20.8	12.8	0.3	4.8
N09039olF	2.3	1.4	77.9	22.0	13.1	0.3	4.8
N09042olF	2.1	1.3	77.8	26.2	12.6	0.3	4.6
N10043olJ	2.5	1.5	76.7	28.3	13.8	0.2	5.4
N10046ol	2.2	1.2	77.9	22.4	13.0	0.3	4.7
N10047ol	2.3	1.3	77.8	23.0	13.0	0.3	4.8
N10051ol	2.2	1.3	77.6	24.0	13.1	0.3	4.7
N10066olSmT	2.2	1.3	77.8	23.1	13.1	0.3	4.8
N10078olJC	2.2	1.3	78.4	24.4	12.2	0.3	4.6
N10080olJCL	2.2	1.3	78.1	25.7	12.3	0.3	4.7
N10082olJC	2.3	1.3	78.1	22.6	12.9	0.3	4.9
N11020olJ	2.2	1.3	77.8	25.6	12.7	0.3	4.8
N11028ol	2.1	1.1	76.7	33.5	13.3	0.2	4.6
N11034ol	2.2	1.3	78.1	23.6	12.6	0.3	4.7
N11048ol	2.1	1.2	78.0	23.8	12.6	0.3	4.4
N11051olJ	2.2	1.4	77.5	27.3	12.8	0.2	4.8
N12006ol	2.3	1.4	81.5	9.4	13.4	0.6	4.9
N12007ol	2.1	1.2	79.2	17.2	12.6	0.4	4.5
N12008olCLSmT	2.2	1.3	81.5	9.4	13.4	0.6	4.7
N12009olCLT	2.3	1.3	88.1	3.9	14.8	1.2	4.8
N12010ol	2.2	1.2	84.8	6.5	14.3	0.9	4.7
N12014ol	2.3	1.3	78.2	20.2	13.0	0.3	4.9
N12015ol	2.4	1.4	81.0	11.7	13.9	0.6	5.0
<b>Mean</b>	<b>2.3</b>	<b>1.3</b>	<b>80.0</b>	<b>18.9</b>	<b>13.6</b>	<b>0.5</b>	<b>4.9</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>5.5</b>	<b>15.0</b>	<b>1.5</b>	<b>0.5</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, 2014<sup>1</sup>.

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.2	2.6	54.4	26.9	1.4	1.3
Sugg	9.1	2.7	55.2	26.4	1.4	1.2
Wynne	6.1	2.7	78.5	5.8	1.3	1.6
Sullivan	5.9	2.6	79.5	4.9	1.3	1.7
Spain	6.7	3.8	74.5	7.5	1.7	1.4
07030-1-10-1	6.4	3.7	76.1	6.4	1.6	1.4
07036-1-2-1	6.3	3.8	79.1	3.6	1.6	1.3
N09037ol	5.9	2.5	79.4	5.3	1.3	1.7
N09039olF	6.1	2.5	80.2	4.2	1.3	1.7
N09042olF	6.2	2.4	78.8	5.8	1.2	1.7
N10043olJ	6.2	3.1	78.5	5.0	1.5	1.6
N10046ol	5.7	2.9	80.7	3.9	1.4	1.6
N10047ol	5.9	2.7	80.4	4.4	1.3	1.6
N10051ol	5.9	2.8	80.5	4.1	1.3	1.6
N10066olSmT	6.1	2.8	79.6	4.7	1.3	1.6
N10078olJC	5.7	2.7	80.5	4.5	1.3	1.6
N10080olJCL	5.6	2.5	81.6	3.7	1.2	1.6
N10082olJC	5.8	2.7	80.1	4.7	1.3	1.5
N11020olJ	5.9	2.6	80.3	4.4	1.3	1.6
N11028ol	6.0	3.1	80.9	3.4	1.5	1.4
N11034ol	6.1	2.6	78.7	5.8	1.3	1.6
N11048ol	6.2	2.7	79.4	4.8	1.3	1.6
N11051olJ	5.8	2.8	80.8	3.8	1.3	1.6
N12006ol	6.6	2.5	75.5	8.5	1.3	1.6
N12007ol	6.0	2.6	79.6	5.4	1.3	1.5
N12008olCLSmT	6.5	2.6	75.8	8.6	1.3	1.5
N12009olCLT	7.4	2.7	69.1	14.4	1.3	1.4
N12010ol	7.3	2.7	69.2	14.4	1.3	1.4
N12014ol	5.8	2.9	79.7	4.7	1.4	1.6
N12015ol	6.4	2.6	77.6	6.4	1.3	1.6
<b>Mean</b>	<b>6.4</b>	<b>2.8</b>	<b>76.8</b>	<b>7.2</b>	<b>1.3</b>	<b>1.5</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.6</b>	<b>0.4</b>	<b>4.5</b>	<b>0.9</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 Tukey HSD test.

## Fatty Acid Results

Table 28. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated from Blackville, SC, 2014<sup>1</sup> (cont.).

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.9	1.5	94.3	2.0	17.4	1.5	5.7
Sugg	2.7	1.3	94.1	2.1	17.2	1.5	5.4
Wynne	2.6	1.4	78.7	14.3	14.2	0.4	5.3
Sullivan	2.6	1.5	78.2	16.7	13.9	0.4	5.4
Spain	3.1	1.3	78.2	10.8	16.6	0.5	6.1
07030-1-10-1	3.1	1.3	77.7	12.3	16.1	0.4	6.0
07036-1-2-1	3.0	1.2	75.3	24.3	15.9	0.2	5.9
N09037ol	2.5	1.4	78.8	16.4	13.6	0.4	5.2
N09039olF	2.5	1.5	77.6	19.3	13.9	0.3	5.3
N09042olF	2.5	1.4	79.1	14.7	13.8	0.4	5.2
N10043olJ	2.6	1.4	77.5	16.9	14.9	0.3	5.5
N10046ol	2.5	1.3	77.4	20.7	13.8	0.3	5.2
N10047ol	2.4	1.4	77.9	18.8	13.7	0.3	5.1
N10051ol	2.4	1.4	77.5	19.8	13.9	0.3	5.1
N10066olSmT	2.5	1.4	77.8	18.4	14.2	0.3	5.2
N10078olJC	2.4	1.3	78.3	18.6	13.4	0.3	5.0
N10080olJCL	2.4	1.3	77.9	22.5	13.1	0.3	5.0
N10082olJC	2.5	1.4	78.2	17.4	13.7	0.3	5.1
N11020olJ	2.5	1.4	77.9	18.8	13.7	0.3	5.2
N11028ol	2.4	1.2	76.6	24.2	14.2	0.2	5.1
N11034ol	2.5	1.4	79.1	14.6	13.9	0.4	5.2
N11048ol	2.6	1.4	77.9	18.7	14.2	0.3	5.3
N11051olJ	2.5	1.4	77.3	21.6	13.8	0.3	5.2
N12006ol	2.6	1.4	81.0	9.1	14.3	0.6	5.3
N12007ol	2.3	1.3	79.0	15.5	13.5	0.4	4.8
N12008olCLSmT	2.4	1.3	81.4	8.8	14.0	0.6	5.0
N12009olCLT	2.5	1.3	85.4	4.9	15.1	1.0	5.1
N12010ol	2.4	1.3	85.5	4.9	15.1	1.0	5.1
N12014ol	2.6	1.4	77.9	17.8	14.1	0.3	5.3
N12015ol	2.6	1.5	79.0	12.3	14.4	0.4	5.4
<b>Mean</b>	<b>2.6</b>	<b>1.4</b>	<b>79.7</b>	<b>15.2</b>	<b>14.4</b>	<b>0.5</b>	<b>5.3</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>2.9</b>	<b>10.2</b>	<b>0.9</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated averaged across all locations, 2014.<sup>1</sup>**

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.5	2.4	51.3	30.0	1.3	1.3
Sugg	9.3	2.4	52.5	29.1	1.3	1.3
Wynne	6.1	2.5	79.0	5.8	1.2	1.7
Sullivan	5.7	2.4	80.6	4.4	1.2	1.8
Spain	6.5	3.7	74.8	7.4	1.6	1.5
07030-1-10-1	6.1	3.7	77.7	5.2	1.6	1.4
07036-1-2-1	6.2	3.7	79.2	3.5	1.6	1.4
N09037ol	5.8	2.3	80.4	4.9	1.2	1.7
N09039olF	6.0	2.3	80.6	4.3	1.2	1.7
N09042olF	5.8	2.2	81.0	4.4	1.1	1.7
N10043olJ	5.8	2.9	80.5	3.7	1.4	1.7
N10046ol	5.6	2.6	81.1	4.0	1.3	1.6
N10047ol	5.7	2.5	81.2	4.0	1.2	1.7
N10051ol	5.8	2.5	81.3	3.9	1.2	1.7
N10066olSmT	6.0	2.5	80.4	4.5	1.2	1.7
N10078olJC	5.5	2.4	81.5	4.0	1.2	1.7
N10080olJCL	5.5	2.3	81.7	3.9	1.2	1.7
N10082olJC	5.7	2.5	80.5	4.7	1.2	1.6
N11020olJ	5.7	2.5	81.0	4.2	1.2	1.7
N11028ol	5.9	2.9	81.8	3.1	1.4	1.5
N11034ol	5.6	2.5	81.1	4.3	1.2	1.7
N11048ol	5.9	2.4	80.9	4.2	1.2	1.7
N11051olJ	5.7	2.6	81.6	3.7	1.2	1.6
N12006ol	6.7	2.3	74.1	10.2	1.2	1.6
N12007ol	5.9	2.5	79.8	5.6	1.2	1.6
N12008olCLSmT	6.4	2.4	75.2	9.4	1.2	1.6
N12009olCLT	7.5	2.5	66.8	16.9	1.2	1.4
N12010ol	7.4	2.5	67.2	16.4	1.2	1.4
N12014ol	5.6	2.6	80.8	4.3	1.3	1.7
N12015ol	6.2	2.4	77.6	6.7	1.2	1.7
<b>Mean</b>	<b>6.2</b>	<b>2.6</b>	<b>77.1</b>	<b>7.4</b>	<b>1.3</b>	<b>1.6</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.4</b>	<b>0.2</b>	<b>2.4</b>	<b>2.0</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 Tukey HSD test.



## Fatty Acid Results

Table 29. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated averaged across all locations, 2014<sup>1</sup>. (cont.)

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.8	1.5	97.1	1.7	17.4	1.7	5.5
Sugg	2.7	1.4	96.5	1.8	17.2	1.7	5.4
Wynne	2.4	1.4	79.3	14.5	13.5	0.4	5.0
Sullivan	2.5	1.5	78.3	18.8	13.2	0.3	5.2
Spain	3.2	1.3	78.3	11.5	16.3	0.5	6.1
07030-1-10-1	3.0	1.2	77.0	15.9	15.6	0.3	5.8
07036-1-2-1	3.1	1.2	75.4	23.1	15.8	0.2	5.9
N09037ol	2.3	1.4	79.0	17.3	13.0	0.4	4.9
N09039olF	2.4	1.4	78.1	19.3	13.4	0.3	5.1
N09042olF	2.3	1.4	78.6	19.5	12.9	0.3	4.8
N10043olJ	2.6	1.5	76.9	23.6	14.1	0.3	5.4
N10046ol	2.4	1.3	78.0	20.3	13.2	0.3	4.9
N10047ol	2.4	1.4	78.1	20.6	13.1	0.3	4.9
N10051ol	2.3	1.4	78.0	21.1	13.1	0.3	4.9
N10066olSmT	2.4	1.4	78.2	18.8	13.5	0.3	5.0
N10078olJC	2.3	1.3	78.4	20.9	12.8	0.3	4.9
N10080olJCL	2.4	1.3	78.4	21.5	12.6	0.3	4.9
N10082olJC	2.4	1.3	78.7	17.9	13.1	0.4	4.9
N11020olJ	2.4	1.4	78.2	20.2	13.2	0.3	5.0
N11028ol	2.3	1.2	76.9	26.7	13.7	0.2	4.9
N11034ol	2.3	1.3	78.5	19.9	12.9	0.3	4.8
N11048ol	2.4	1.3	78.1	20.3	13.3	0.3	4.9
N11051olJ	2.3	1.3	77.8	22.5	13.1	0.3	4.8
N12006ol	2.5	1.4	82.8	7.7	14.0	0.7	5.0
N12007ol	2.2	1.3	79.6	14.8	13.0	0.4	4.7
N12008olCLSmT	2.4	1.4	82.2	8.3	13.8	0.7	5.0
N12009olCLT	2.4	1.3	87.9	4.0	14.9	1.1	5.0
N12010ol	2.4	1.3	87.4	4.3	15.0	1.1	5.0
N12014ol	2.5	1.4	78.2	19.3	13.2	0.3	5.1
N12015ol	2.6	1.5	79.8	12.3	13.9	0.5	5.3
<b>Mean</b>	<b>2.5</b>	<b>1.4</b>	<b>80.3</b>	<b>16.3</b>	<b>13.9</b>	<b>0.5</b>	<b>5.1</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.2</b>	<b>0.1</b>	<b>1.5</b>	<b>4.5</b>	<b>0.7</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Two-year averages across all locations, (2013 – 2014)<sup>1</sup>.**

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.4	2.4	52.2	29.1	1.3	1.4
N09037ol	5.8	2.3	79.8	5.1	1.2	1.8
N09039olF	6.0	2.3	80.0	4.7	1.2	1.8
N09042olF	6.0	2.2	79.9	5.2	1.1	1.8
N10043olJ	5.8	2.9	80.2	3.8	1.4	1.8
N10046ol	5.7	2.6	80.3	4.5	1.3	1.7
N10047ol	5.8	2.5	80.2	4.7	1.3	1.8
N10051ol	5.8	2.4	80.8	4.3	1.2	1.7
N10066olSmT	6.1	2.5	79.4	5.2	1.2	1.7
N10078olJC	5.5	2.4	80.9	4.4	1.2	1.8
N10080olJCL	5.6	2.3	81.1	4.2	1.2	1.8
N10082olJC	5.8	2.5	80.2	4.8	1.2	1.7
N11020olJ	5.8	2.4	80.3	4.5	1.3	1.8
N11028ol	6.0	2.9	80.4	4.2	1.4	1.5
N11034ol	5.7	2.4	79.9	5.1	1.2	1.7
N11048ol	6.0	2.3	80.3	4.6	1.2	1.7
N11051olJ	5.8	2.5	80.9	4.1	1.2	1.7
Sullivan	5.7	2.4	80.2	4.6	1.2	1.9
Wynne	6.0	2.5	79.2	5.5	1.3	1.7
Spain	6.4	3.7	75.1	7.0	1.6	1.5
Sugg	9.4	2.4	51.7	29.7	1.3	1.3
<b>Mean</b>	<b>6.2</b>	<b>2.5</b>	<b>77.3</b>	<b>7.1</b>	<b>1.3</b>	<b>1.7</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.4</b>	<b>0.2</b>	<b>2.5</b>	<b>2.1</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 Tukey HSD test.

## Fatty Acid Results

**Table 30. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Two-year averages across all locations, (2013 – 2014)<sup>1</sup>. (cont.)**

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.8	1.5	96.4	2.2	17.4	1.7	5.6
N09037ol	2.5	1.4	78.9	16.6	13.3	0.4	5.1
N09039olF	2.5	1.5	78.4	17.6	13.5	0.4	5.2
N09042olF	2.4	1.4	79.1	18.2	13.1	0.4	4.9
N10043olJ	2.6	1.5	77.1	22.2	14.1	0.3	5.5
N10046ol	2.4	1.4	78.3	18.4	13.4	0.3	5.1
N10047ol	2.5	1.4	78.5	17.8	13.4	0.4	5.1
N10051ol	2.3	1.4	78.3	19.3	13.2	0.3	4.9
N10066olSmT	2.5	1.4	78.6	18.0	13.7	0.4	5.1
N10078olJC	2.4	1.4	78.6	19.4	12.9	0.3	5.0
N10080olJCL	2.5	1.4	78.5	19.9	12.9	0.3	5.0
N10082olJC	2.4	1.4	78.6	17.5	13.3	0.4	5.1
N11020olJ	2.5	1.4	78.3	18.6	13.4	0.3	5.2
N11028ol	2.4	1.3	77.6	23.5	13.9	0.3	5.1
N11034ol	2.4	1.3	79.0	18.9	13.2	0.4	5.0
N11048ol	2.4	1.3	78.4	18.7	13.3	0.3	5.0
N11051olJ	2.4	1.4	78.1	20.3	13.2	0.3	5.0
Sullivan	2.5	1.5	78.4	18.0	13.4	0.3	5.3
Wynne	2.5	1.4	79.0	15.6	13.6	0.4	5.1
Spain	3.3	1.3	78.0	11.8	16.3	0.4	6.2
Sugg	2.8	1.4	97.0	1.8	17.2	1.7	5.5
<b>Mean</b>	<b>2.5</b>	<b>1.4</b>	<b>80.1</b>	<b>16.9</b>	<b>13.9</b>	<b>0.5</b>	<b>5.2</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.2</b>	<b>0.1</b>	<b>1.5</b>	<b>3.6</b>	<b>0.6</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 Tukey HSD 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 Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Three-year averages across all locations, (2012 – 2014)<sup>1</sup>.**

Variety or Line	Palmitic C16:0	Stearic C18:0	Oleic C18:0	Linoleic C18:2	Arachidic C20:0	Eicosenoic C20:1
Bailey	9.9	2.4	52.7	28.9	1.2	1.3
N10047ol	6.0	2.4	80.8	4.5	1.2	1.7
N10080olJCL	5.9	2.3	81.0	4.7	1.1	1.7
N09037ol	6.1	2.3	80.1	5.2	1.1	1.7
N10046ol	6.0	2.6	80.8	4.6	1.2	1.6
N10066olSmT	6.6	2.6	79.0	5.6	1.1	1.6
N10078olJC	5.8	2.3	81.1	4.6	1.1	1.7
N10082olJC	5.9	2.4	80.3	5.0	1.2	1.7
Sullivan	6.0	2.3	80.4	4.8	1.1	1.8
Wynne	6.3	2.5	79.4	5.7	1.2	1.6
<b>Mean</b>	<b>8.1</b>	<b>2.4</b>	<b>66.1</b>	<b>17.3</b>	<b>1.2</b>	<b>1.4</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.5</b>	<b>0.2</b>	<b>2.0</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 Tukey HSD test.

## Fatty Acid Results

**Table 31. Fatty Acid Composition, Iodine Values, Oleic/Linoleic O/L Ratio, % Total Polysaturated/Saturated (P/S) Ratio, and % Total Long Chain Saturated. Three-year averages across all locations, (2012 – 2014)<sup>1</sup>. (cont.)**

Variety or Line	Behenic C22:0	Lignoceric C24:0	Iodine <sup>3</sup> Value	O/L <sup>4</sup> Ratio	% Total Saturated	P/S Ratio	% Total Long Chain Saturated
Bailey	2.4	1.2	96.4	2.1	17.1	1.7	4.8
N10047ol	2.2	1.2	78.7	18.6	13.0	0.4	4.5
N10080olJCL	2.2	1.2	79.1	19.2	12.6	0.4	4.4
N09037ol	2.2	1.2	79.2	16.7	13.0	0.4	4.5
N10046ol	2.1	1.1	78.7	18.6	13.0	0.3	4.5
N10066olSmT	2.2	1.2	79.0	17.2	13.7	0.4	4.6
N10078olJC	2.1	1.2	79.0	18.9	12.6	0.4	4.4
N10082olJC	2.2	1.2	79.1	17.2	13.0	0.4	4.7
Sullivan	2.2	1.3	78.9	17.6	13.0	0.4	4.6
Wynne	2.2	1.1	79.4	16.4	13.3	0.4	4.5
<b>Mean</b>	<b>2.3</b>	<b>1.2</b>	<b>87.9</b>	<b>9.3</b>	<b>15.2</b>	<b>1.1</b>	<b>4.7</b>
<b>Tukey HSD<sup>2</sup></b>	<b>0.3</b>	<b>0.2</b>	<b>1.4</b>	<b>2.8</b>	<b>0.7</b>	<b>0.1</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 Tukey HSD test.

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

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

ANNEX

Table 1. Yield, value, and grade characteristics for PVQE Test at Blackville, SC, in 2014.

Variety	LSK		FM		Fancy		Water		ELK		Super		SS		OK		DK		SMK		Total		Support <sup>1</sup>		Yield <sup>2</sup>		Value <sup>3</sup>	
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	Price	\$/cwt	lb/A	\$/A	lb/A	\$/A
Bailey	1.3	2.3	75 jk <sup>1</sup>	5.5	26 c-f	16 i-k	9.3	2.6	1.0	61 b-g	74 e-h	18.22 e-k	2905 d-j	529 e-l														
Sugg	1.4	2.2	87 b-g	5.5	27 bc	20 f-i	9.3	2.2	1.3	62 b-f	75 b-f	18.50 a-h	3051 c-h	563 b-h														
Wynne	2.3	3.1	86 c-h	5.6	26 c-f	18 h-j	10.4	2.5	1.6	60 d-h	75 c-h	18.24 d-k	2901 e-j	525 e-l														
Sullivan	1.2	1.8	84 e-h	5.6	26 c-e	18 g-j	9.4	2.7	0.5	62 b-f	75 c-h	18.50 a-h	3345 b-f	619 b-f														
Spain	2.1	3.0	88 a-e	5.5	19 i-k	28 bc	9.7	1.9	2.3	60 d-h	74 f-h	18.08 g-k	3686 ab	655 ab														
07030-1-10-1	2.6	2.1	81 g-j	5.5	18 jk	28 bc	13.6	1.4	1.6	59 f-i	75 a-d	18.68 a-f	2955 d-j	549 c-j														
07036-1-2-1	3.3	3.4	92 a-c	5.5	16 k	35 a	13.8	1.1	2.9	59 g-i	76 a	18.76 a-d	4057 a	745 a														
N09037ol	1.2	2.2	86 b-g	5.6	28 bc	15 i-k	10.9	2.3	1.1	60 c-h	74 d-h	18.35 b-j	2908 d-j	528 e-l														
N09039olF	1.4	2.6	74 jk	5.6	31 ab	4 n	7.2	3.4	1.3	62 b-g	74 f-h	17.83 jk	2934 d-j	521 f-l														
N09042olF	1.3	1.9	65 m	5.7	27 c-e	11 lm	7.6	3.9	1.1	61 c-h	74 g-i	17.75 k	4057 a	445 kl														
N10043olJ	3.6	2.8	92 ab	5.5	18 jk	30 b	11.5	1.2	2.6	59 e-i	74 d-h	18.27 c-k	2645 h-j	482 h-l														
N10046ol	1.8	2.3	86 c-h	5.6	22 g-i	30 b	7.0	2.0	1.0	66 a	76 ab	18.95 a	3258 b-g	616 b-f														
N10047ol	1.6	2.0	82 e-i	5.6	23 e-h	26 b-d	8.2	1.9	1.1	64 ab	76 a-c	18.83 ab	2730 g-j	505 g-l														
N10051ol	2.3	3.0	85 d-h	5.6	26 c-f	17 h-k	10.1	2.2	1.6	60 c-h	74 d-h	18.25 e-k	2518 ij	458 i-l														
N10066olSmT	1.7	3.0	88 a-e	5.6	28 bc	17 h-k	7.7	2.0	1.3	63 b-d	74 g-i	18.17 f-k	2437 j	440 l														
N10078olJC	1.4	2.9	86 b-g	5.6	25 c-g	19 f-j	10.3	2.2	2.3	60 d-h	75 b-f	18.20 e-k	3123 c-h	559 b-i														
N10080olJCL	1.7	2.3	87 a-f	5.5	25 c-g	21 e-h	11.6	1.8	1.6	61 c-h	76 ab	18.72 a-e	2901 e-j	538 d-l														
N10082olJC	1.7	2.8	87 a-f	5.6	24 c-g	20 e-h	10.5	1.5	2.1	61 b-g	76 a-d	18.55 a-g	2646 h-j	485 g-l														
N11020olJ	1.4	2.4	94 a	5.6	20 h-j	26 b-d	8.6	1.8	1.3	61 c-h	73 i	18.00 h-k	3200 b-g	572 b-h														
N11028ol	1.6	3.2	81 f-j	5.6	27 c-e	13 kl	11.5	2.9	1.3	58 hi	73 hi	17.90 i-k	3517 bc	644 a-c														
N11034ol	2.3	2.5	67 lm	5.7	31 ab	8 mn	8.5	3.2	1.0	63 a-d	76 ab	18.50 a-h	3008 c-i	556 b-i														
N11048ol	1.7	3.2	91 a-d	5.6	23 f-h	20 e-h	11.5	2.6	2.4	58 hi	74 e-h	17.92 i-k	3085 c-h	543 c-k														
N11051olJ	1.9	2.5	87 b-g	5.6	22 g-i	23 d-g	13.7	2.2	2.8	57 i	75 b-e	18.18 f-k	2816 f-j	511 g-l														
N12006ol	1.5	2.6	76 i-k	5.6	27 c-e	15 jk	8.2	2.5	0.9	63 a-c	75 b-f	18.49 a-h	3120 c-h	575 b-h														
N12007ol	1.1	1.6	86 b-h	5.6	23 f-h	26 b-d	8.9	2.3	0.8	62 b-e	74 e-h	18.47 a-h	3434 b-d	633 b-d														
N12008olCLSmT	0.9	2.3	82 e-i	5.5	27 c-e	21 e-h	8.9	2.5	1.1	62 b-e	75 b-g	18.45 a-h	3186 b-g	585 b-g														
N12009olCLT	1.2	2.2	83 e-h	5.6	24 d-g	24 d-f	9.8	2.7	0.8	61 b-g	75 b-f	18.49 a-h	3388 b-e	623 b-e														
N12010ol	1.5	2.1	88 a-e	5.6	24 c-g	24 c-e	10.9	2.0	1.3	62 b-g	76 a-c	18.78 a-c	3524 bc	656 ab														
N12014ol	1.6	2.2	80 h-j	5.6	27 cd	17 h-k	8.3	2.5	1.8	63 a-d	75 a-d	18.43 a-i	2484 ij	453 j-l														
N12015ol	2.6	2.5	72 k	5.6	32 a	8 mn	8.7	3.0	1.5	62 b-f	75 b-e	18.24 d-k	2777 g-j	502 g-l														
<b>Mean</b>	<b>1.8</b>	<b>2.5</b>	<b>83</b>	<b>5.6</b>	<b>25</b>	<b>19.9</b>	<b>9.8</b>	<b>2.3</b>	<b>1.5</b>	<b>61</b>	<b>75</b>	<b>18.35</b>	<b>3051</b>	<b>557</b>														
<b>LSD<sub>0.05</sub><sup>2</sup></b>	<b>0.9</b>	<b>1.0</b>	<b>7</b>	<b>0.2</b>	<b>4</b>	<b>4.4</b>	<b>3.0</b>	<b>0.9</b>	<b>0.9</b>	<b>3</b>	<b>1</b>	<b>0.01</b>	<b>530</b>	<b>102</b>														

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

<sup>2</sup>Fisher's least significant difference (LSD) at P = 0.05.

**Table 2. Jumbo & fancy and pod brightness characteristics for PVQE Test at Blackville, SC, in 2014.**

Variety	%	Hunter			%	Hunter		
	Jumbo	L Score	a	b	Fancy	L Score	a	b
Bailey	34 j-l	40 a-d	2.98 ab	13.34 a-d	41 c-f	37.76 a	2.97 a-c	12.31 ab
Sugg	44 f-i	39 d-i	3.05 ab	12.26 ef	42 a-f	36.58 a-e	2.95 a-c	11.49 a-f
Wynne	53 c-f	37 ij	3.20 ab	12.06 ef	32 h-j	35.33 c-g	3.07 a-c	11.23 c-f
Sullivan	40 h-k	40 a-g	3.47 ab	12.96 a-e	44 a-e	36.43 a-f	3.10 a-c	11.49 a-f
Spain	64 ab	37 ij	3.30 ab	12.11 ef	24 k-m	35.59 b-g	2.89 a-c	11.52 a-f
07030-1-10-1	55 c-e	39 d-i	3.46 ab	12.69 c-e	26 j-m	35.02 c-g	3.09 a-c	11.07 d-f
07036-1-2-1	72 a	40 a-d	3.56 a	13.49 a-c	20 m	35.83 a-g	2.69 a-c	11.17 c-f
N09037ol	52 c-f	38 f-i	3.07 ab	12.46 de	35 g-i	34.70 e-g	2.73 a-c	10.93 d-f
N09039olF	26 lm	40 a-f	3.13 ab	13.07 a-e	49 a	35.88 a-g	2.52 c	11.14 c-f
N09042olF	27 lm	39 b-h	2.95 ab	12.65 c-e	39 d-h	36.61 a-e	2.67 bc	11.42 b-f
N10043olJ	72 a	38 d-i	3.14 ab	12.41 d-f	20 m	35.48 b-g	2.94 a-c	11.04 d-f
N10046ol	58 b-d	41 ab	3.48 ab	13.72 ab	27 j-l	35.83 a-g	3.16 ab	11.43 b-g
N10047ol	55 c-e	41 a-c	3.14 ab	13.57 a-c	28 jk	34.82 d-g	2.74 a-c	10.98 d-f
N10051ol	46 e-i	38 g-j	2.85 b	12.08 ef	39 d-h	34.43 fg	3.03 a-c	10.71 ef
N10066olSmT	50 d-g	36 j	3.06 ab	11.40 f	38 d-h	35.73 a-g	2.50 c	11.57 a-f
N10078olJC	49 e-h	39 b-h	3.14 ab	12.77 b-e	38 e-h	35.91 a-g	2.76 a-c	11.45 b-f
N10080olJCL	51 c-f	38 g-j	3.49 ab	12.40 d-f	37 f-i	36.63 a-e	2.99 a-c	12.04 a-c
N10082olJC	51 c-f	38 e-i	2.91 ab	12.30 ef	37 f-i	36.88 a-d	2.88 a-c	11.67 a-d
N11020olJ	73 a	36 j	2.86 b	11.41 f	21 lm	34.35 g	2.83 a-c	10.76 d-f
N11028ol	41 g-j	40 a-g	3.10 ab	12.91 a-e	40 c-g	36.31 a-g	3.19 ab	11.34 c-f
N11034ol	23 m	40 a-g	3.52 ab	12.86 a-e	44 a-d	37.05 a-c	2.75 a-c	11.38 c-f
N11048ol	60 bc	39 c-i	3.33 ab	12.57 c-e	31 ij	34.47 fg	2.71 a-c	10365 f
N11051olJ	59 bc	37 h-j	3.34 ab	12.12 ef	28 jk	34.24 g	2.49 c	10.82 d-f
N12006ol	31 k-m	39 d-i	2.92 ab	12.71 b-e	45 a-c	35.88 a-g	2.64 bc	1.24 c-f
N12007ol	48 e-h	40 a-g	3.30 ab	12.91 a-e	38 d-h	36.99 a-c	2.90 a-c	11.64 a-d
N12008olCLSmT	38 i-k	41 ab	3.24 ab	13.59 a-c	44 a-e	35.44 b-g	3.32 a	11.67 a-d
N12009olCLT	45 f-i	39 b-h	3.15 ab	12.84 a-e	38 e-h	36.22 a-g	3.18 ab	11.45 b-f
N12010ol	46 e-i	40 a-e	3.06 ab	13.38 a-d	42 b-f	35.60 b-g	2.88 a-c	11.25 c-f
N12014ol	32 kl	42 a	3.50 ab	13.83 a	48 ab	37.41 ab	3.10 a-c	12.39 a
N12015ol	34 j-l	39 b-g	3.19 ab	12.86 a-e	38 d-h	36.68 a-e	3.01 a-c	11.61 a-e
<b>Mean</b>	<b>47</b>	<b>39</b>	<b>3.20</b>	<b>12.72</b>	<b>36</b>	<b>36</b>	<b>2.89</b>	<b>11.36</b>
<b>LSD<sub>0.05</sub><sup>2</sup></b>	<b>9</b>	<b>2</b>	<b>0.69</b>	<b>1.02</b>	<b>6</b>	<b>2</b>	<b>0.62</b>	<b>0.92</b>

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

<sup>2</sup>Fisher's least significant difference (LSD) at P = 0.05.

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