2017

North Carolina and Tennessee Pumpkin Cultivar Evaluations

Mountain Research Station
Waynesville, NC

Department of Horticultural Science
North Carolina State University
Hort. Series No. 219

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UTIA INSTITUTE OF AGRICULTURE THE UNIVERSITY OF TENNESSEE

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General Cultural Practices

The pumpkin cultivar evaluation trial was grown on black plastic mulch and were fertigated with drip irrigation. Pesticides used on all plots were chemicals labeled for that crop, (North Carolina Agricultural Chemicals Manual, 2017).

Acknowledgments

We gratefully acknowledge the assistance of Kaleb Rathbone (Superintendent), John Eric Freeman (Horticultural Crops Supervisor) and other supporting personnel at the Mountain Research Station, Waynesville, NC, for their help in establishing, maintaining, and harvesting the pumpkin cultivar evaluation trial. Additionally, we would like to thank the University of Tennessee and North Carolina State University student workers and support staff for assisting with planting and harvesting of the trial. We also want to acknowledge the following seed companies for their cooperation and support: Abbott & Cobb, Inc.; Clifton Seed; DP Seed; Enza Zaden USA; HM Clause Seed Company; Johnny's Seeds; Rupp Seeds, Inc.; and Sakata Seed Company. Finally, we also want to acknowledge Joy Smith for conducting the statistical analysis on the data collected in this trial.

Disclaimer

This publication presents data from the cultivar evaluation trial conducted during 2017. Information contained in this report is believed to be reliable but should not be relied upon as a sole source of information. Limited accompanying detail is included but excludes some pertinent information, which may aid interpretation.

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Introduction

In 2017, North Carolina ranked 4th in pumpkin production in the US behind Illinois, Texas and California. This makes North Carolina the largest pumpkin producing state on the eastern seaboard. The economic value of the pumpkin crop in North Carolina was reported to be more than 15 million dollars in 2016. The USDA- National Agricultural Statistics Service reported pumpkin acreage in North Carolina and Tennessee at 3,800 and 1,900 acres, respectively. The crop carries a significant value to producers in both states and it appears as though production of this commodity is increasing in North Carolina. In the western part of North Carolina and in pockets of Tennessee, pumpkin production is extensive due to the climate and soils of the region. Collaborative pumpkin cultivar evaluation trials have been conducted by North Carolina State University and the University of Tennessee for over a decade. Growing conditions in the higher elevations of these states seems to translate in less disease pressure. According to the USDA Economic research service, consumer demand for specialty varieties has been increasing in recent years. The pumpkin cultivars included in this trial were mainly evaluated for yield. However, each cultivar was also rated for shape, color, suturing, vine habit, handle characteristics, fruit size measurements and powdery mildew symptoms. The fruit obtained from each replicated cultivar are also identified in a photograph. Several other cultivars were also included in the trial as observation plots (non-replicated) and most of these cultivars are identified in a photograph where available.

Materials and Methods

This trial was conducted at the NCSU Mountain Research Station, Waynesville, NC, and was a collaboration between North Carolina State University and the University of Tennessee. Seeds were planted on 21 June 2017. A total of 72 cultivars were evaluated, with 41 cultivars being un-replicated and for observational purposes only. The remaining 31 cultivars were evaluated in a randomized complete block (RCB) trial with 4 replications. Each plot measured 20 feet long with 6 plants spaced 3 feet apart (in-row) and distance between-row spacing was 10 feet. The exceptions were the mini sized category where plants were spaced 1.5 feet apart and 12 plants were planted in each plot.

Plant bed preparation included pre-plant fertilizer (260 lbs/acre of 34-0-0 and 65 lbs/acre of (18-46-0) broadcast applied and incorporated into the beds on 14 June before laying plastic mulch, providing 100 lbs N, 30 lbs P and 0 lbs K per acre. Fertigation with either KNO_3 (13-0-44) or $CaNO_3$ (15.5-0-0) was applied through drip irrigation on 2, 9, 16, 23 and 30 August 2017; 6 and 15 September 2017. A total of 150 lbs/acre N, 30 lbs/acre P and 66 lbs/acre K was applied to the trial site throughout the entire growing season.

Insecticides were only applied when needed and were applied at labeled rates for pumpkin production in North Carolina. Coragen was applied through drip irrigation on 5 July 2017 and applied at the labeled rate that can be referenced in the North Carolina Agricultural Chemical Manual or the North Carolina Vegetable Production Guide. The fungicide program implemented included the following products which were alternated to reduce potential for development of

disease resistance: Fontelis, Previcur Flex, Presidio, Pristine, Procure, Rally, Ranman, Quadris, Quintec and Zampro. These products are registered for use in this crop and were applied according to labeled rates that can be referenced in the North Carolina Agriculture Chemical Manual or the North Carolina Vegetable Production Guide, 2017. Fungicides were applied every 7 to 14 days throughout the growing season beginning 12 July 2017 and repeated on the following dates: 24 July; 1, 14, 21 and 31 August; 7, 14 and 22 September 2017. Herbicides, Command (1pt/ac) and Dual Magnum (1pt/ac), were sprayed for weed control on 22 June 2017. Pumpkins were harvested on 5 October (106 days after planting). Yield per acre was calculated by extrapolating total yield from the 200 ft^2 area of each plot. Five representative fruit from each plot were measured to find the average length and width of each cultivar. Pumpkin color, shape, and suturing; and handle length, thickness and attachment were rated subjectively for each plot.

Results

Experimental pumpkins are discussed by size class and are organized in tables in alphabetical order. Results mentioned in the paragraphs below only correspond to the replicated cultivars.

Mini

Six cultivars were evaluated in the mini size class (≤5.0 lbs). Crunchkin, Jack Sprat, Munchkin, Orangita and Prankster were all orange pumpkins, while Casperita was white. Average fruit size ranged from 0.5 lbs for Munchkin to 3.6 lbs for Prankster (Table 1). The smallest fruit were produced by Munchkin and Crunkin while the largest fruit in the mini category were produced by Prankster. Munchkin produced the most number of total fruit while Prankster produced the least number of total fruit per acre (Table 1). Jack Sprat produced the highest yield (15.0 tons/acre) while Crunchkin had the lowest yield (3.7 tons/acre) in the mini size category (Table 1).

Small

Four cultivars were evaluated in the small size class (5.1 – 10.0 lbs). Darling, Enza EX#16, Field Trip were all orange pumpkins while Tandy produced a buff colored pumpkin. Average fruit size was 5.9 lbs with Enza EX#16 and Tandy producing the smallest fruit (5.4 lbs) while Darling produced the largest fruit (6.8 lbs). Tandy produced the highest fruit per acre while Enza EX#16 produced the least fruit per acre (Table 1). Darling produced the highest yield (tons/per acre) and Enza #16 had the lowest yields in the small size category (Table 1).

Medium

Fifteen cultivars were evaluated in the medium size class (10.1 – 20.0 lbs). ACX 7606, Cracker Jack, Enza EX#3, Enza EX#5, Eagle City Gold, Gladiator, Magic Lantern, Orange Sunrise, Renegade, SPU 6016, Skidoo Gold and Solid Gold were all orange pumpkins, while Blue Doll was blue/green, Blush was pink/buff and Porcelain Doll was pink (Table 2). ACX 7606 had the smallest average fruit size (10.1 lbs) while Magic Lantern had the largest average fruit size (19.9 lbs). ACX 7606 produced the greatest number of fruit per acre while SPU 6016 produced the least total number of fruit per acre (Table 1).

Large

Six cultivars were evaluated in the large size class (≥20.1 lbs). Bayhorse Gold, Bellatrix, Early King, Hulk, Kratos and Rhea were all orange pumpkins. Bayhorse Gold produced the smallest average fruit (20.6 lbs) while Hulk produced the largest average fruit (25.6 lbs). Kratos had the highest total yield (tons/acre) and Hulk produced the lowest total yield in the large size class (Table 1.) Bayhorse Gold produced the highest total number of fruit per acre and Hulk produced the lowest number of fruit per acre (Table 1).

Figure 1. Pumpkin, Gourd/Winter Squashphotographs, replicated cultivars. **Waynesville, NC, 2017.**

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Table 1. Pumpkin cultivar evaluation trial. Cumulative yield (tons) / acre, fruit number per acre and average fruit weight, **Waynesville, NC, 2017.**

			Cumulative		
Size Class	**Cultivar**	**Seed Company**	**Yield (tons) / Acre**	**Number of Fruit / Acre**	**Average Fruit Weight (lbs)**
Mini (≤ 5.0 lb)	Casparita	DP Seeds	5.8	11,979	1.0
	Crunchkin	HM Clause	3.7	12,887	0.6
	Jack Sprat	Sakata	15.0	9,922	3.0
	Munchkin	HM Clause	4.1	18,392	0.5
	Orangita	DP Seeds	6.9	11,737	1.2
	Prankster	Rupp Seeds Inc.	10.2	5,627	3.6
	Average		7.6	11,757	1.7
	LSD (0.05)		**1.9**	**6,565**	**0.2**
Small (5.1-10.0 lb)	Darling	Abbott & Cobb	19.9	5,869	6.8
	ENZA EX#16	Enza Zaden	9.6	2,662	5.4
	Field Trip	Harris Moran	19.2	6,534	5.9
	Tandy	DP Seeds	17.7	6,837	5.4
	Average		16.6	5,475	5.9
	LSD (0.05)		**11.6**	**3,858**	**2.5**
Medium (10.1- 20.0 lb)	ACX 7606	Abbot & Cobb	20.1	3,993	10.1
	Blue Doll	DP Seeds	24.2	3,388	13.8
	Blush	Clifton Seed	41.1	6,171	13.6
	Cracker Jack	Sakata	18.1	2,480	12.8
	ENZA EX#3	Enza Zaden	19.9	2,844	14.0
	ENZA EX#5	Enza Zaden	20.1	2,844	14.5
	Eagle City Gold	Rupp Seeds Inc.	35.8	3,751	19.3
	Gladiator	HM Clause	25.3	2,783	18.2
	Magic Lantern	HM Clause	29.4	3,085	19.9
	Orange Sunrise	HM Clause	32.6	3,812	17.2
	Porcelain Doll	HM Clause	19.1	2,985	12.4
	Renagade	Johnny's Seed	25.8	3,086	17.0
	SPU 6016	Sakata	15.9	2,723	11.8
	Skidoo Gold	Rupp Seeds Inc.	24.8	3,812	13.2
	Solid Gold	Rupp Seeds Inc.	24.2	2,783	18.2
	Average		25.1	3,369	15.1
	LSD (0.05)		**11.2**	**1,572**	**4.4**
Large (≥ 20.1 lb)	Bayhorse Gold	Rupp Seeds Inc.	38.4	3,751	20.6
	Bellatrix	Enza Zaden	38.4	3,146	21.1
	Early King	Abbott & Cobb	32.4	2,904	22.7
	Hulk	Sakata	32.7	2,601	25.6
	Kratos	HM Clause	41.2	3,509	23.6
	Rhea	HM Clause	34.6	2,965	23.7
	Average		36.3	3,146	22.9
	LSD (0.05)		**10.6**	**1,122**	**3.9**

Table 2. Pumpkin, Gourd/Winter Squash cultivar evaluation trial. Fruit and quality measurements for replicated cultivars. **Waynesville, NC, 2017.**

	Fruit	Fruit	Fruit	Fruit	*PM	Handle[6]			Fruit[7]		
Cultivar	Color[1]	Shape[2]	Suturing[3]	Texture[4]	Rating[5]	Thickness	Length	Attachment	Length	Width	L/W
ACX 7606	6.2	5.3	5.5	5.2	7.0	5.1	5.7	4.3	22.3	23.8	0.9
Bayhorse Gold	6.8	6.0	6.8	4.8	5.3	7.0	6.0	4.6	29.9	29.7	1.0
Bellatrix	6.6	5.0	6.1	3.8	3.8	7.1	6.2	4.3	28.0	31.7	0.9
Blue Doll	Blue/green	3.8	8.5	6.2	2.7	6.3	1.7	2.7	18.9	26.5	0.7
Blush	Pink/buff	3.6	4.6	4.9	32.0	6.4	1.2	1.5	22.1	30.8	0.7
Casparita	1.0	2.5	7.4	5.3	7.8	6.3	6.0	8.8	7.2	11.3	0.6
Cracker Jack	7.5	4.8	7.0	4.4	4.5	5.5	7.1	4.0	23.1	26.4	0.9
Crunchkin	4.5	2.8	5.5	8.0	8.8	6.5	7.0	6.8	6.1	10.1	0.6
Darling	5.9	8.8	2.7	1.3	7.8	7.1	5.2	2.0	21.6	16.7	1.3
Eagle City Gold	6.3	5.4	4.8	4.0	4.8	7.4	7.4	4.0	28.2	30.7	0.9
Early King	5.8	6.3	4.3	5.5	3.3	8.3	5.5	3.0	33.7	33.2	1.0
ENZA EX#3	6.8	5.4	9.0	8.6	3.5	9.0	4.5	6.0	23.5	25.7	0.9
ENZA EX#5	6.8	5.3	6.5	3.8	6.5	6.0	6.7	6.6	25.8	26.5	1.0
ENZA EX#16	8.0	4.8	5.4	3.9	5.0	7.0	6.0	4.0	17.9	20.4	0.9
Field Trip	7.0	4.1	6.0	4.6	4.0	7.0	6.2	8.8	16.1	20.5	0.8
Gladiator	6.8	5.0	6.3	6.0	3.5	7.4	7.2	4.3	28.7	31.1	0.9
Hulk	6.3	8.0	7.3	4.3	4.8	8.3	8.0	3.6	39.5	32.2	1.2
Average	6.2	5.1	6.1	5.0	6.8	6.9	5.7	4.7	23.1	25.1	0.9
LSD (0.05)[8]	**0.7**	**0.6**	**1.2**	**1.6**	**1.9**	**0.7**	**0.9**	**1.2**	**3.1**	**3.4**	**0.1**

[1] Color Scale: 1 = yellow, 5 = orange, 9 = burnt orange.

[2] Fruit Shape Rating: 1 = flat, 5 = round, 9 = tall.

[3] Fruit Suturing: 1 = none, 5 = medium, 9 = deep.

[4] Texture Rating: 1 = smooth, 5 = semi-rough, 9= rough.

[5] Powdery Mildew Rating: 1 = None, 9 = Severe

[6] Handle Rating:
Thickness: 1 = thin, 5 = medium, 9 = thick.
Length: 1 = short, 5 = medium, 9 = long.
Attachment: 1 = poor, 5 = average, 9 = excellent.

[7] Fruit Measurements = Individual length and width values (inches) were taken from 5 fruit per replication, (20 total), The LD ratio was determined by dividing fruit length by fruit width.

Table 2 (Cont'd). Pumpkin, Gourd/Winter Squash cultivar evaluation trial. Fruit and quality measurements for replicated cultivars. Waynesville, NC, 2017.

Cultivar	Fruit Color[1]	Fruit Shape[2]	Fruit Suturing[3]	Fruit Texture[4]	*PM Rating[5]	Handle[6]			Fruit[7]		
						Thickness	Length	Attachment	Length	Width	L/W
Jack Sprat	6.3	4.9	3.6	3.5	3.3	7.1	6.0	5.9	14.3	16.0	0.9
Kratos	7.0	5.6	8.3	5.2	2.5	8.8	9.0	5.1	30.8	33.0	0.9
Magic Lantern	6.8	5.0	6.6	3.9	4.3	6.3	6.7	4.8	30.3	31.8	1.0
Munchkin	4.5	2.0	5.8	8.0	8.5	5.3	6.0	5.8	5.1	9.0	0.6
Orangita	5.0	2.8	6.3	4.4	2.8	8.3	7.4	5.5	7.3	11.1	0.7
Orange Sunrise	6.5	5.0	6.0	6.0	8.0	6.0	6.1	8.1	27.9	30.5	0.9
Porcelain Doll	Pink	3.2	7.3	6.0	2.5	6.5	2.0	2.7	16.8	25.9	0.7
Prankster	5.6	3.9	2.7	4.0	6.3	8.0	5.2	5.3	12.9	17.9	0.7
Renagade	7.0	5.1	7.4	4.8	3.3	7.8	6.0	4.4	26.6	28.2	0.9
Rhea	6.6	4.1	7.0	5.4	2.5	9.0	8.7	8.8	27.1	34.9	0.8
Skidoo Gold	6.8	4.9	4.5	4.8	4.3	7.5	5.5	4.0	22.8	26.2	0.9
SPU 6016	7.3	5.8	4.4	2.1	6.3	7.5	6.2	6.3	26.5	25.8	1.0
Solid Gold	5.9	5.4	6.5	4.5	6.0	6.0	6.0	3.5	28.5	30.9	0.9
Tandy	Buff	5.2	5.0	5.1	5.0	5.3	5.8	4.4	18.1	19.0	1.0
Average	6.3	4.5	5.8	4.8	4.7	7.1	6.2	5.3	21.1	24.3	0.9
LSD (0.05)[8]	**0.7**	**0.6**	**1.2**	**1.6**	**1.9**	**0.7**	**0.9**	**1.2**	**3.1**	**3.4**	**0.1**

[1] Color Scale: 1 = yellow, 5 = orange, 9 = burnt orange.

[2] Fruit Shape Rating: 1 = flat, 5 = round, 9 = tall.

[3] Fruit Suturing: 1 = none, 5 = medium, 9 = deep.

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[7] Fruit Measurements = Individual length and width values (inches) were taken from 5 fruit per replication, (20 total), The LD ratio was determined by dividing fruit length by fruit width.

Figure 2. Pumpkin, Gourd/Winter Squash photographs of selected observation entries. **Waynesville, NC, 2017.**

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Table 3. Pumpkin cultivar evaluation trial. Selected observations (non-replicated cultivars). Cumulative yield (tons) per acre, number fruit per acre and average fruit weight, **Waynesville, NC, 2017.**

Size Class	Cultivar	Seed Company	Average Fruit Weight (lbs)
Mini	Autumn Crown	Siegers	2.0
(≤ 5.0 lb)	Galaxy of Stars	Rupp Seeds, Inc.	0.3
	Goblin	Hollar	1.6
	HMX 53W2737	HM Clause	3.3
	HMX53W2795	HM Clause	2.3
	Hooligan	Siegers	1.3
	Pear Bi-Color	Hollar	0.1
	Spoon Platoon	Hollar	0.3
	Toad	Sakata	1.9
	Waldo (JWS 61726)	Johnny's Select Seed	1.2
	Average		**1.6**
Small	Flatso	DP Seeds	5.4
(5.1 - 10.0 lb)	Goosebumps	Siegers	6.3
	Kakai	Johnny's Select Seed	7.5
	Lunch Lady	Seedway	6.8
	Marrina Di Chioggia	Johnny's Select Seed	9.2
	New England Cheddar	Rupp Seeds Inc.	7.7
	Turks Turban	Johnny's Select Seed	5.4
	Average		**7.0**
Medium	Blue Doll	DP Seeds	15.6
(10.1 - 20.0 lb)	Crystal Star	Rupp Seeds Inc.	12.0
	Flat White Boer	Sakata	10.4
	HMX 53M6724	HM Clause	14.1
	HMX 53W2738	HM Clause	14.4
	Jewel Box	Seedway	15.3
	Knuckle Head	Johnny's Select Seed	12.0
	Red Eye	Rupp Seeds Inc.	13.4
	Red Warty Thing	Rupp Seeds Inc.	12.3
	Speckled Swan	Johnny's Select Seed	11.2
	Average		**13.1**
Large	Big Moose	DP Seeds	48.7
(≥ 20.1 lb)	Jason	Siegers	27.0
	Monster Smash	Rupp Seeds Inc.	25.4
	Musque De Provence	Johnny's Select Seed	21.2
	New Moon	Hollar	34.3
	Average		**31.3**

Table 4. Pumpkin cultivar evaluation trial. Fruit and quality measurements for selected observation (non-replicated) cultivars. **Waynesville, NC, 2017.**

Cultivar	Fruit Color[1]	Fruit Shape[2]	Fruit Suturing[3]	Fruit Texture[4]	*PM Rating[6]	Handle[7]			Fruit[8]		
						Thickness	Length	Attachment	Length	Width	L/W
Autumn Crown	Buff	2.0	6.5	3.0	4.0	6.0	7.0	2.0	8.0	14.4	0.6
Autumn Wings*	-	-	-	-	5.0	-	-	-	-	-	-
Big Moose	Orange-red striped	3.5	4.0	4.0	2.0	8.0	4.0	1.0	-	-	-
Blue Doll	Blue/green	4.0	9.0	8.0	4.0	6.5	2.0	2.0	17.9	27.4	0.7
Cave Man's Club*	Green	Gourd	-	-	1.0	-	-	-	-	-	-
Crystal Star	1.0	4.5	1.0	4.0	2.0	5.0	1.0	1.0	22.7	28.1	0.8
Daisy Gourd*	-	-	-	-	8.0	-	-	-	-	-	-
Flat White Boer	1.0	1.0	4.0	5.0	2.0	5.0	1.0	2.0	12.5	30.8	0.4
Flatso	5.5	3.5	7.0	5.0	2.0	6.0	6.0	5.0	14.5	21.7	0.7
Galaxy of Stars*	-	-	-	-	5.0	-	-	-	-	-	-
Goblin Eggs*	-	-	-	-	3.0	-	-	-	-	-	-
Goosebumps	5.0	5.5	1.0	1.0	8.0	6.0	6.0	7.0	17.4	19.5	0.9
Gremlins*	-	-	-	-	4.0	-	-	-	-	-	-
HMX 53M6724	7.0	5.0	6.5	4.5	3.0	8.0	6.5	5.0	25.7	27.8	0.9
HMX 53W2737	5 w/drk grn warts	9.0	1.0	1.0	7.0	7.0	7.0	6.0	17.4	13.4	1.3
HMX 53W2738	2.0	5.0	5.5	6.0	6.0	7.0	6.0	8.0	25.3	26.8	0.9
HMX 53W2795	5 w/drk grn warts	5.0	1.0	1.0	6.0	7.0	5.0	6.0	12.7	14.2	0.9
Hooligan	3.5, cream w/orange stripes	3.0	6.5	8.0	9.0	7.0	7.0	8.0	6.4	10.9	0.6
Jason	6.0	7.0	7.0	6.0	6.0	7.0	7.0	6.0	38.7	35.6	1.1
Jewel Box	Buff	6.5	5.0	8.0	4.0	5.0	8.0	2.0	26.1	30.6	0.9
Average	3.9	4.6	4.6	4.6	4.6	6.5	5.3	4.4	18.9	23.2	0.8

[1] Color Scale: 1 = yellow, 5 = orange, 9 = burnt orange.

[2] Fruit Shape Rating: 1 = flat, 5 = round, 9 = tall.

[3] Fruit Suturing: 1 = none, 5 = medium, 9 = deep.

[4] Texture Rating: 1 = smooth, 5 = semi-rough, 9= rough.

[5] Powdery Mildew Rating: 1 = None, 9 = Severe

[6] Handle Rating:

Thickness: 1 = thin, 5 = medium, 9 = thick.

Length: 1 = short, 5 = medium, 9 = long.

Attachment: 1 = poor, 5 = average, 9 = excellent.

[8] Fruit Measurements = Individual length and width values (inches) were taken from 5 fruit per replication, (20 total), The LD ratio was determined by dividing fruit length by fruit width.

* Data not available.

Table 4 (Cont'd.) Pumpkin cultivar evaluation trial. Fruit and quality measurements for selected observation (non-replicated) cultivars. Waynesville, NC, 2017.

Cultivar	Fruit Color[1]	Fruit Shape[2]	Fruit Suturing[3]	Fruit Texture[4]	*PM Rating[6]	Handle[7]			Fruit[8]		
						Thickness	Length	Attachment	Length	Width	L/W
JWS-14-4079*	-	Acorn	-	-	7.0	-	-	-	-	-	-
Kakai	Dk Grn w/orange	6.5	1.0	1.0	5.0	5.0	6.0	1.0	24.3	23.6	1.0
Knuckle Head	7.0	6.0	2.0	2.0	8.0	5.0	7.0	5.0	28.9	26.9	1.1
Lunch Lady*	-	-	-	-	7.0	-	-	-	27.4	19.9	1.5
Marina Di Chioggia	Green/blue	2.0	9.0	9.0	2.0	9.0	2.0	5.0	12.0	27.3	0.4
Monster Smash	Red/orange	5.0	1.0	5.0	2.0	8.0	2.0	1.0	27.4	28.8	1.1
Musque De Provence	Drk Green	2.0	9.0	4.5	3.0	5.0	8.0	4.0	18.0	29.6	0.6
New England Cheddar	Buff	3.0	5.0	2.0	2.0	5.0	6.0	2.0	15.3	23.7	0.6
New Moon	White/grey w/stripes	4.5	2.0	3.0	3.0	7.0	3.0	1.0	33.1	42.2	0.8
Pear Bi-Color*	-	-	-	-	-	-	-	-	-	-	
Red Eye	Pink/red mottled	3.0	1.0	9.0	4.0	6.5	1.0	2.0	19.1	29.8	0.6
Red Warty Thing	Yellow/orange	5.0	4.0	8.0	2.0	5.0	2.0	4.0	27.4	27.4	1.0
Rouge Vif D'Etampes*	-	-	-	-	-	-	-	-	-	-	-
Small Ornamental Gourd Mix*	-	-	-	-	6.0	-	-	-	-	-	-
Speckled Swan*	-	Swan grd.	-	-	1.0	-	-	-	24.6	24.0	1.0
Spoon Platoon*	-	-	-	-	4.0	-	-	-	-	-	-
Thor	7.0	5.0	5.0	5.0	6.0	6.0	8.0	2.0	32.4	33.5	1.0
Toad	6.0	5.0	2.0	2.0	7.0	6.0	7.0	2.0	11.9	13.2	0.9
Turk's Turban*	-	-	-	-	7.0	-	-	-	12.9	20.5	0.6
Waldo*	Butternut squash	-	-	-	1.0	-	-	-	18.3	9.4	1.9
Average	6.7	4.3	3.7	4.6	4.3	6.1	4.7	2.6	22.2	25.3	0.9

[1] Color Scale: 1 = yellow, 5 = orange, 9 = burnt orange.

[2] Fruit Shape Rating: 1 = flat, 5 = round, 9 = tall.

[3] Fruit Suturing: 1 = none, 5 = medium, 9 = deep.

[4] Texture Rating: 1 = smooth, 5 = semi-rough, 9= rough.

[5] Powdery Mildew Rating: 1 = None, 9 = Severe

[6] Handle Rating:
Thickness: 1 = thin, 5 = medium, 9 = thick.
Length: 1 = short, 5 = medium, 9 = long.
Attachment: 1 = poor, 5 = average, 9 = excellent.

[8] Fruit Measurements = Individual length and width values (inches) were taken from 5 fruit per replication, (20 total), The LD ratio was determined by dividing fruit length by fruit width.

* Data not available.