

*Welcome to the*

# **Vegetable Variety Trial Showcase**

**Thursday, November 29, 2007**

**5:45 – 8:00 p.m. CST**

## **Pinney Purdue Ag Center**

**11402 South County Line Road  
Wanatah, IN**

### ***Program***

**Trial Results from the Southwest  
Purdue Ag. Center**

**Muskmelon  
Seedless Watermelon  
Seedless Watermelon Pollenizer**

**Chris Gunter, North Carolina  
State University (formerly at SW  
Purdue Ag. Program), presenting  
from SWPAP**

**Trial Results from Pinney-Purdue  
Ag. Center and Northern Indiana**

**Pumpkin  
Sweet Corn  
Tomato**

**Liz Maynard, NW Commercial  
Horticulture Program, Purdue  
University, presenting from PPAC**

This event will be available online as a streaming video in a few weeks, check  
<[www.hort.purdue.edu/fruitveg](http://www.hort.purdue.edu/fruitveg)>

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## Eastern Muskmelon Trials for Southwestern Indiana, 2007

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Indiana is a leader in the nation for production of eastern muskmelon with Knox, Sullivan, and Gibson counties ranking in the top 100 melon producing counties. The evaluation of newly released varieties and advanced experimental breeding lines in an independent assessment is extremely valuable for growers and seed producers in the commercial melon industry. The objective of this study was to comparatively evaluate and identify potential new cultivars and advanced experimental breeding lines that may be adaptable to the growing conditions in southwestern Indiana. Growers are seeking high yielding, high quality, early maturing types with excellent disease resistance and acceptable keeping quality during shipping and storage. Fruit need to be medium to large and have high uniformity in both size and shape. Traditionally, markets have demanded fruit with heavy netting and distinct ridges. Melons that can be stored and held easily for longer periods of time, and those that could be harvested at a slightly earlier slip-stage and still retain acceptable quality would also be desirable.

### Experimental Setup:

Sixteen eastern muskmelon cultivars and advanced experimental lines were evaluated in a randomized complete block design with three replications. Each entry was first direct seeded in the greenhouse on April 17, 2007 and transplanted into the field on May 14, 2007. Plots consisted of single 55-foot long rows, covered with 4 ft. wide black plastic mulch. Rows were centered six feet apart, and between plant spacing (within a row) was 2.5 ft., allowing 22 plants per row. Each variety and experimental line was grown in accordance with the recommendations outlined in the Midwest Vegetable Production Guide for Commercial Growers (ID-56, 2007). Trickle irrigation lines placed beneath the plastic mulch provided water as needed. Fruits were harvested three times a week by hand from July 9, 2007 through August 3, 2007. Data were analyzed with the SAS Software package (SAS Corp., Cary, NC).

### Results:

High Yield, Earliness, and Internal Quality Rating: The average yield was 23.0 tons/acre with a range of 20.9 to 26.5 tons/acre (Table 1). The mean fruit weight was 6.6 lbs/fruit with a range of 5.2 to 7.7 lbs/fruit. This translated to 4884 to 9504 fruit/acre with a mean fruit number of 7180 fruit/acre. Minerva had the highest yield in this year's trial followed by Crescent Moon, RML 0410, and SSX 1029. The earliest fruit in this trial were harvested at 83 days. Quality ratings of each tested variety or advanced experimental line showed variability in soluble solids, shape, size, uniformity, flavor, netting and the degree of ridges on the fruit surface (Table 2). Selected comments noted during quality evaluation are mentioned here: Aphrodite, ES594, and 05H15 all had soluble solids at or above 11% (brix). The highest flavor ratings in this trial were SSX 1099 and RML 0408. Most fruit were medium to large sized with average uniformity. Heavy netting, a thick rind and a small seed cavity are also desirable characteristics and ES 293 and 05H015 had all of these characteristics.

Table 1. Yield comparison of Eastern muskmelon cultivars in Southwestern Indiana, 2007.

Cultivar	Seed Source	Days to Harvest	Yield Cwt./A	Yield Tons/A	Fruit No./A	Average Fruit Weight (lbs)	% of fruit harvested between		
							7-9 7-13	7-14 7-29	7-30 8-3
Minerva	RG	86	529.8	26.5	6908	7.7	11	55	34
Crescent Moon	SE	83	494.5	24.7	6556	7.6	23	55	22
RML 0410	RG	85	486.4	24.3	7480	6.5	20	49	31
SSX 1029	STS	84	484.4	24.2	5632	8.6	18	59	23
SSX 1099	STS	84	481.9	24.1	9504	5.1	8	66	26
ES 293	AC	91	478.8	23.9	4884	9.9	1	55	44
Diva	HM	85	466.0	23.3	7172	6.5	12	73	15
ES 594	AC	87	460.4	23.0	6776	6.8	3	52	45
Aphrodite	RG	84	457.6	22.9	6864	6.7	26	54	20
Jaipur	SM	87	444.0	22.2	7788	5.7	9	71	20
Rockstar	SE	83	443.5	22.2	6952	6.4	44	47	9
Athena	RG	83	437.4	21.9	8316	5.2	31	43	26
RML 0408	RG	84	431.7	21.6	6556	6.6	14	69	17
RML 0409	RG	83	425.7	21.3	7524	5.6	25	55	20
05H015	SE	83	424.1	21.2	7832	5.4	47	40	13
Strike	HL	84	417.5	20.9	8140	5.2	42	37	21
Grand Mean		84.8	460.2	23.0	7180	6.6	21.0	55.1	24.0
LSD (5%)		2.8	47.1	2.4	739	0.4	11.9	13.6	8.6
C.V. (%)		2.2	6.2	6.2	16	4.1	34.1	14.8	21.9

Table 2. Quality comparison of Eastern muskmelon cultivars in Southwestern Indiana, 2007.

Cultivar	Seed	% SS <sup>q</sup>	Shape <sup>r</sup>	Size <sup>s</sup>	Uniformity <sup>t</sup>	Flavor <sup>u</sup>	Netting <sup>v</sup>	Ridges <sup>w</sup>	Rind <sup>x</sup>	Seed	Pressure <sup>z</sup>
	Source									Cavity <sup>y</sup>	
Minerva	RG	10.1	Ov	VL	2	1.9	3	3	2	M-L	4.0
Crescent Moon	SE	7.2	Ov	L	2	1.7	3	3	2	M	1.5
RML 0410	RG	9.0	R	M	2	1.3	3	1	1	M	1.0
SSX 1029	STS	6.5	R-Ob	L-VL	1	3.6	3	1	1	S	2.0
SSX 1099	STS	10.5	R	S	3	4.6	3	0.5	0.5	S	2.0
ES 293	AC	10.4	Ov	VL	2	3.0	3	1	2	S	4.0
Diva	HM	9.5	Ob	L	3	3.0	3	1	1	M	2.5
ES 594	AC	11.0	Ov	L	2	3.3	3	1	2	S	6.0
Aphrodite	RG	11.1	R	M	3	2.9	3	1	1	L	2.0
Jaipur	SM	9.0	R	S	2	2.9	3	2	2	L	3.5
Rockstar	SE	9.5	Ov	M	3	3.4	2	2	2	S	3.0
Athena	RG	9.0	Ob	S	2	3.9	2	1	1	S	2.5
RML 0408	RG	9.0	R	S	3	4.1	2	1	1	S	2.0
RML 0409	RG	10.5	R	S	3	2.9	2	1.5	1	S	3.0
05H015	SE	11.0	R	M	3	2.0	3	2	2	S	2.0
Strike	HL	8.0	Ob	S	3	2.1	3	1	1	S	2.5

<sup>q</sup> %SS = Percent Soluble Solids: the higher the value, the greater the amount of total sugar.

<sup>r</sup> Shape: Rd=round, Ov=oval, Ob=oblong.

<sup>s</sup> Size: S=small, M=medium, L=large, VL=very large.

<sup>t</sup> Uniformity (1 to 3): 1=lack all uniform/variable, 2=average, 3=very uniform.

<sup>u</sup> Flavor (1 to 5): 1=very poor, 3=acceptable, 5=great.

<sup>v</sup> Netting (1 to 3): 1=weak, 2=moderate, 3=heavy.

<sup>w</sup> Ridges (0 to 3): 0=absent, 1=light, 2=moderate, 3=heavy/large.

<sup>x</sup> Rind (1 to 3): 1=thin, 2=moderate, 3=thick.

<sup>y</sup> Seed cavity: S=small, M=medium, L=large, VL=very large.

<sup>z</sup> Pressure = Pressure test reading in pounds per square inch

## Seedless Watermelon Cultivar Trials for Southwestern Indiana, 2007

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Seedless watermelons continue to generate both grower and consumer excitement, and in many urban markets around the US the percentage of seedless melons purchased has risen considerably. Indiana remains a strong producer of seedless (triploid) watermelons, and since 1994, we have conducted extensive annual variety trials for seedless varieties. This trial, along with the seeded (diploid) watermelon variety trial provides an objective and independent comparative assessment of new watermelons for the commercial industry. This year's study included 39 seedless watermelons and one seeded variety.

### Methods:

Seeds of 40 watermelon cultivars were sown in the greenhouse on April 19 and transplanted on May 17 into a randomized complete block design with three replications. Pollimax (Nunhems Seed, Parma, ID) was used as the pollinizer and planted within each row. A water wheel transplanter with two planting spikes at 48 inches was modified to include a third spike at 24 inches on one side of the wheel. Care was taken to ensure that plots were planted with a pattern of seedless, pollinizer, seedless and that pattern repeated until 12 seedless plants had been planted. Plots were single rows 48 feet long, centered eight feet apart, and covered with 4 foot black plastic mulch. Each plot had 12 seedless plants and 6 pollinizer plants. The recommendations in the Midwest Vegetable Production Guide for Commercial Growers (ID-56, 2007) were followed for fertilization, weed, disease and insect control. Trickle irrigation was used as necessary to provide ample water to the field plots. Plots were harvested on July 11, 19, 25, and August 2, 5, and 9. The data were analyzed using the Statistical Analysis Software (SAS) package (SAS Institute, Cary, NC). Yield data and quality data for all varieties in the trial are presented in Tables 1 and 2. Size distribution data are presented in Table 3.

### Results and Conclusions:

Yields and Quality. Yields ranged from 30.3 to 12.1 tons/acre with 1733 to 3767 fruit/acre harvested across all entries (Table 1). The average weight of seedless fruit was down this year to 15.0 lbs/fruit with a range of 12.7 to 20.3 lbs/fruit. Highest yielding cultivars in this trial were: Crunchy Red, USS 7031, Matrix, Nun 6033 and Majestic. Most of the fruit in the trial this year were round to oval with dark pink to red flesh. The melon varieties with the highest soluble solids were Palomar, RWT 8173, WT-05-98, Rwt 8207, Nu 7561, and L-2, all of which had a soluble solids greater than 12 Brix. Seedless watermelons should be a part of your melon production strategy as long as you have a market that will purchase the fruit at a higher price than the seeded watermelons.

The majority of cultivars tested produced watermelon in the 12-18 lb range (Table 3). Notable exceptions were Matrix and USS 7031 which produced about over 1/3<sup>rd</sup> of their fruit in the 18-24 lb category. If a larger fruit size is desirable, WT-05-99 produced the most fruit over 24 lbs (12%).

Table 1. Comparison of Yield of Seedless Watermelon in Southwestern Indiana, 2007.

Cultivar	Seed Source	Yield Cwt/Acre	Yield <sup>z</sup> Tons/Acre		Fruit No./Acre	Average Fruit Weight
Crunchy Red	HM	607.2	30.3	a	3767	16.3
USS 7031	US	559.3	28.0	ab	3293	17.1
Matrix	RG	558.8	28.0	ab	3202	17.4
Nun 6033	NU	540.4	27.0	abc	3428	15.7
Majestic	SM	534.1	26.7	abcd	3352	16.0
9651 HQ	AC	529.5	26.5	abcde	3277	16.3
WT-05-99	DP	527.5	26.4	abcde	2825	18.9
Cooperstown	SM	520.6	26.0	abcdef	3315	15.8
SSX 7401	SK	508.0	25.4	abcdefg	3654	14.1
WT-05-98	DP	505.1	25.3	abcdefg	3089	16.5
8134	SM	487.1	24.4	abcdefgh	3352	14.6
RWT 8174	RG	481.4	24.1	abcdefgh	3363	14.4
SSC 1704	SR	479.8	24.0	abcdefgh	3315	14.5
L1	AT	472.7	23.6	bcdefghi	3051	15.7
HMX 4915	HM	467.1	23.4	bcdefghij	3390	13.7
Liberty	NU	460.2	23.0	bcdefghij	3089	15.0
Vagabond	HM	450.9	22.6	bcdefghij	3239	14.0
Revolution	NU	428.3	21.4	bcdefghijk	2448	17.5
5335	SM	427.9	21.4	cdefghijk	3126	13.7
C-25	AT	418.4	21.0	cdefghijk	2034	20.3
RWT 8207	RG	417.8	20.9	cdefghijk	3051	13.7
Sugarheart	ZG	414.2	20.7	cdefghijk	2863	14.5
Super Crisp 85	ZG	412.9	20.6	cdefghijk	2863	14.4
Super Crisp	ZG	411.0	20.6	cdefghijk	2904	14.0
Nu 7561	NU	405.4	20.3	defghijk	3202	12.9
Nun 6032	NU	403.7	20.2	defghijk	2750	14.8
212	RG	398.7	19.9	efghijk	2900	13.8
Sweet Delight	RG	396.4	19.8	fghijk	2674	15.0
Rwt 8173	RG	393.9	19.7	fghijk	2561	15.3
Triple Threat	RG	381.9	19.1	ghijk	2863	13.3
Super Crisp 32	ZG	381.7	19.1	ghijk	2486	15.3
Palomar	RG	364.0	18.2	hijkl	2637	13.8
313	RG	363.2	18.2	hijkl	2486	14.6
Constitution	HU	357.9	17.9	hijkl	2712	13.4
RWT 8203	RG	345.6	17.3	ijkl	2448	14.0
9570 HQ	AC	338.3	16.9	jkl	2222	14.7
7176	AC	317.0	15.9	kl	2147	14.8
L-2	AT	316.5	15.8	kl	2335	13.5
Freshcut ESL	WI	302.3	15.1	kl	2335	12.7
Cutmaster ESL	WI	241.4	12.1	l	1733	14.0
Grand Mean		433.2	21.7		2893	15.0
L.S.D. (5%)		131.1	6.6		596	4.5
C.V. (%)		8.6	8.6		6	8.5

Table 2.  
Comparison  
of Quality of  
Seedless  
Watermelon  
in South-  
western  
Indiana, 2007.

Cultivar	% SS <sup>q</sup>	Flavor <sup>r</sup>	Uniformity <sup>s</sup>	Length <sup>t</sup>	Width <sup>u</sup>	Ratio <sup>v</sup>	Shape <sup>w</sup>	Flesh <sup>x</sup>	Degree of	
									Seedlessness <sup>y</sup>	Pressure <sup>z</sup>
Crunchy Red	10.4	2.9	2	11.5	8.8	1.3	Ov	Pink	3	2.0
USS 7031	11.6	3.6	3	11.5	9.5	1.2	Rd	D-pink	3	1.8
Matrix	10.4	2.0	3	12.0	8.3	1.4	Ob	Red	2	1.5
Nun 6033	11.5	4.4	3	10.6	9.2	1.2	Rd	D-pink	3	1.5
Majestic	9.9	2.3	1	11.1	9.1	1.2	Ov	Red	3	1.5
9651 HQ	11.4	3.7	3	9.6	8.7	1.1	Rd	Red	3	1.2
WT-05-99	11.2	2.7	2	10.3	9.2	1.1	Rd	D-pink	1	1.0
Cooperstown	11.2	3.7	1	9.9	8.4	1.2	Ov	Red	3	1.2
SSX 7401	11.9	3.7	2	10.4	8.7	1.2	Ov	Red	3	1.3
WT-05-98	12.3	2.4	2	10.4	9.1	1.1	Ov	Red	2	1.0
8134	10.0	3.5	3	10.6	8.0	1.3	Ov	Red	3	1.1
RWT 8174	10.8	3.2	3	10.8	8.7	1.2	Rd	Red	2	1.3
SSC 1704	10.3	2.8	3	11.1	9.2	1.2	Ov	Red	3	1.5
L-1	11.9	3.1	3	11.5	9.1	1.3	Ov	Red	2	1.7
HMX4915	10.1	2.6	2	10.8	8.4	1.3	Ov	Red	2	1.2
Liberty	10.8	4.0	2	11.0	9.1	1.2	Ov	D-pink	3	1.3
Vagabond	11.0	3.7	1	10.3	8.8	1.2	R-Ov	D-pink	3	1.5
Revolution	9.9	2.7	1	16.2	9.5	1.7	Ob	Red	3	2.0
5335	11.0	3.2	2	10.7	8.3	1.3	Ov	Red	1	1.5
C-25	11.7	3.4	1	13.8	8.8	1.6	Ob	Red	N/A	1.0
RWT 8207	12.3	3.6	2	9.6	9.2	1.0	Rd	Red	3	1.3
Sugarheart	10.2	3.7	3	11.9	8.8	1.3	Ov	D-pink	2	1.2
Super Crisp 85	10.9	2.6	2	10.7	8.7	1.2	Ov	Red	1	1.0
Super Crisp	10.8	2.7	1	10.7	7.9	1.3	R-Ov	Red	2	1.0
Nu 7561	12.3	2.8	3	9.4	9.1	1.0	Rd	Red	3	1.5
Nun 6032	9.8	3.8	2	9.8	9.1	1.1	Rd	Pink	3	1.5
212	11.8	2.7	3	10.3	8.8	1.2	Rd	Red	3	1.0
Sweet Delight	11.4	3.8	1	11.1	9.1	1.2	Ov-Ob	Pink	3	1.0
RWT 8173	12.4	3.3	2	10.0	8.3	1.2	R-Ov	Red	3	1.5
Triple Threat	11.4	3.2	2	9.1	9.1	1.0	Rd	Red	3	1.5
Super Crisp 32	10.8	2.6	2	12.0	8.7	1.4	Ov	Red	1	1.0
Palomar	12.4	3.1	3	9.1	8.8	1.0	Rd	Red	2	1.0
313	10.6	2.8	1	9.6	8.3	1.2	R-Ov	Red	3	1.0
Constitution	11.4	2.3	2	9.4	8.7	1.1	Rd	D-pink	2	1.3
RWT 8203	11.0	2.7	2	9.8	8.3	1.2	Ov	Red	3	1.5
9570 HQ	11.7	3.3	3	9.9	8.8	1.1	Rd	Red	1	1.0
7176	10.6	3.1	1	11.6	9.4	1.2	R-Ov	Pink	1	1.6
L-2	12.0	3.8	3	10.8	8.3	1.3	Ov	D-pink	3	1.0
Freshcut ESL	10.2	1.5	1	11.2	8.7	1.3	Ov	Red	3	1.3
Cutmaster ESL	11.2	2.4	3	10.0	8.4	1.2	Ov	Red	2	1.0

Table 3. Percent of fruit broken down into size categories. Categories given are in lbs per fruit.

Cultivar	<12 <sup>z</sup>	12-18	18-24	>24
Crunchy Red	5	71	21	3
USS 7031	6	53	37	3
Matrix	2	59	35	4
Nun 6033	10	65	24	1
Majestic	7	70	24	0
9651 HQ	9	62	28	1
WT-05-99	3	51	35	12
Cooperstown	8	76	14	2
SSX 7401	27	65	8	0
WT-05-98	7	65	27	1
8134	16	78	7	0
RWT 8174	15	77	8	0
SSC 1704	18	70	10	1
L-1	11	69	20	0
HMX4915	21	73	6	0
Liberty	10	83	7	0
Vagabond	20	77	3	0
Revolution	3	62	29	6
5335	27	70	4	0
C-25	22	74	4	0
RWT 8207	15	74	11	0
Sugarheart	13	78	9	0
Super Crisp 85	17	74	9	0
Super Crisp	21	71	8	0
Nu 7561	39	58	4	0
Nun 6032	15	77	7	1
212	32	61	6	0
Sweet Delight	17	65	18	0
RWT 8173	15	65	21	0
Triple Threat	32	67	1	0
Super Crisp 32	15	67	17	2
Palomar	24	69	7	0
313	32	61	6	0
Constitution	33	61	6	0
RWT 8203	23	63	14	0
9570 HQ	14	69	15	2
7176	14	74	12	0
L-2	29	68	3	0
Freshcut ESL	40	56	5	0
Cutmaster ESL	24	70	7	0

**Table 1 notes:**

<sup>z</sup> Yield wt. (tons) averages spanned by the same letter are not significantly different.

**Table 2 notes:**

<sup>q</sup> %SS = Percent soluble solids: the higher the value, the greater the amount of total sugar.

<sup>r</sup> Flavor (1 to 5): 1=very poor, 3=acceptable, 5=great.

<sup>s</sup> Uniformity (1 to 3): 1=lacks uniformity/variable, 2=average, 3=very uniform.

<sup>t</sup> Length: Length of fruit from stem attachment end to blossom end (in)

<sup>u</sup> Width: Width of fruit as measured following a longitudinal cut from stem end to blossom end (in)

<sup>v</sup> Ratio: Length divided by the width of the fruit

<sup>w</sup> Shape: Rd=Round, Ov=Oval, Ob=Oblong.

<sup>x</sup> Flesh: LR=light red, RO=red-orange, R=red, LP=light pink, P=pink, DP=dark pink, Y=yellow.

<sup>y</sup> Degree of Seedlessness (1 to 3): 1=brown or black seeds present, 2=white seeds present, 3=no seeds present.

<sup>z</sup> Pressure: Pressure test reading in pounds per square inch

**Table 3 note:**

<sup>z</sup> Size Categories in lbs.

Table 1. Yield, ear size, and quality of synergistic and sugar-enhanced sweet corn in Northern Indiana, 2007.

Cultivar	Co <sup>z</sup>	Color	Days to Harvest <sup>y</sup>		GDD to Harvest <sup>x</sup>	Yield of Marketable Ears		Average Ear			Husk Cover <sup>w</sup>	Husk Tightness <sup>w</sup>	Tip Fill <sup>w</sup>	Overall <sup>w</sup>	Ear Ht.	Flavor <sup>v</sup>
			Pred.	Actual		doz/A	ton/A	lb	in	in						
Polka	CR	BI	70	79	1422	1339	4.7	0.59	7.0	1.76	2.9	1.1	4.3	3.7	21.4	VG-G
Revelation	HM	BI	68	79	1422	1533	6.3	0.68	7.3	1.92	3.1	1.9	4.2	6.5	20.7	VG-G
Navajo	ST	BI	67	79	1422	1533	7.1	0.77	7.0	1.92	4.9	2.3	4.9	6.3	25.9	M
Valor	CR	BI	72	79	1422	1517	6.0	0.66	7.0	1.78	3.8	1.7	4.1	7.0	22.9	M-VG
Dasher	CR	W	71	82	1463	1323	5.2	0.66	7.0	1.78	3.7	1.6	4.6	5.3	24.4	VG
BC 0808	SY	BI	75	84	1499	1581	8.5	0.89	8.2	2.00	2.6	1.2	4.9	5.3	24.0	M-G
Kristine	CR	BI	80	86	1544	1291	6.2	0.81	7.4	1.94	3.2	1.7	4.2	6.7	24.1	G-VG
Gateway	SY	BI	77	86	1544	1339	6.2	0.77	8.0	1.78	2.1	1.1	4.2	4.7	26.8	VG-E
BC 0805	SY	BI	82	90	1628	1597	8.0	0.83	7.8	1.79	4.9	2.6	4.0	6.0	30.0	G
Montauk	ST	BI	78	90	1628	1291	7.3	0.95	8.2	2.01	3.2	2.4	4.7	7.7	30.8	VG-E
Cameo	CR	BI	84	90	1628	1258	6.6	0.88	8.4	2.01	2.6	1.7	3.6	5.0	32.7	M-VG
Grand mean						1418	6.6	0.77	7.6	1.88	3.4	1.7	4.3	5.8	25.8	–
LSD .05 <sup>u</sup>						217	1.02	0.06	0.4	0.07	1.2	–	–	–	–	–
r <sup>2†</sup>						ns	ns	0.64	0.69	ns	ns	–	–	–	0.75	–

<sup>z</sup>Seed Source: CR=Crookham, HM=Harris Moran, ST=Stokes, SY=Syngenta.

<sup>y</sup> Predicted maturity is from seed supplier.

<sup>x</sup>GDD: corn growing degree days.

<sup>w</sup>Husk cover, tip fill: 1 (worst) to 5 (best). Husk tightness: 1 (loose) to 3 (very tight). Overall: 1 (worst) to 9 (best).

<sup>v</sup>Flavor: M=Medium, G=Good, VG=Very Good, E=Excellent.

<sup>u</sup>Means differing by more than this amount are significantly different at P≤.05. – AOV not performed.

<sup>†</sup>r<sup>2</sup> for regression vs actual days to harvest is the proportion of variability explained by days to harvest. ns=regression not significant at P<.05.

Table 1. Yield, ear size, and quality of supersweet sweet corn in Northern Indiana, 2007.

Cultivar	Co. <sup>z</sup>	Color	Days to Harvest <sup>y</sup>		GDD to Harvest <sup>x</sup>	Yield of Marketable Ears		Average Ear Weight	Ear Length	Ear Dia.	Husk Cover <sup>w</sup>	Husk Tightness <sup>w</sup>	Tip Fill <sup>w</sup>	Overall <sup>w</sup>	Ear Ht.	Flavor <sup>v</sup>	Pericarp Toughness <sup>u</sup>
			Pred.	Actual		doz/A	ton/A	lb	in	in							
GSB 274A	ST	BI	74	81	1502	1291	6.5	0.84	7.9	2.00	2.6	1.0	4.9	7.0	23.9	VG	ST
GSB 2171	ST	BI	71	81	1502	1500	6.2	0.69	7.5	1.92	2.3	1.6	5.0	6.3	26.6	M-VG	ST-VT
Fantastic	ST	BI	75	82	1522	1613	7.3	0.75	7.4	2.00	2.8	1.6	5.0	7.7	28.0	VG	N-ST
Cascade	CR	W	78	83	1543	1355	5.3	0.65	7.1	1.83	4.4	2.9	5.0	6.7	25.1	G-VG	ST
Optimum	CR	BI	78	83	1543	1517	6.2	0.68	7.2	1.86	4.4	2.3	5.0	7.3	24.8	VG-E	N-ST
Optimum R.	CR	BI	78	83	1543	1565	6.7	0.71	7.3	1.88	4.2	2.4	4.9	7.3	25.1	VG	N-T
BSS 0982	SY	BI	82	84	1565	1500	6.4	0.71	7.9	1.85	2.9	2.8	4.1	7.7	27.2	G-E	ST-T
Surpass	CR	BI	78	85	1588	1484	6.2	0.70	7.4	1.78	5.0	2.9	4.3	6.0	23.7	VG	N-ST
GSB 2281	ST	BI	81	86	1614	1581	7.9	0.83	7.6	1.94	3.1	2.6	4.9	6.7	30.8	G	ST-T
Garrison	SY	Y	79	88	1651	1646	8.2	0.83	7.8	1.90	3.7	1.6	4.1	7.0	30.0	M	VT-T
CSAWP5-202	CR	W	82	89	1676	1533	5.9	0.64	6.6	1.87	4.2	2.4	4.2	3.3	25.8	VG-E	ST-T
Holiday	CR	BI	84	90	1704	1404	7.1	0.84	8.0	2.03	4.0	2.2	4.3	6.3	31.1	G-E	ST
Grand mean						1499	6.6	0.74	7.5	1.91	3.6	2.2	4.6	6.6	26.8	–	–
LSD .05 <sup>t</sup>						ns	1.3	0.06	0.5	0.09	ns	ns	ns	ns	2.8		
$r^{2s}$						ns	ns	ns	ns	ns	ns	ns	.56	ns	ns		

<sup>z</sup>Seed Source: CR=Crookham, ST=Stokes, SY=Syngenta.

<sup>y</sup>Predicted maturity is from seed supplier.

<sup>x</sup>GDD: corn growing degree days.

<sup>w</sup>Husk cover, tip fill: 1 (worst) to 5 (best). Husk tightness: 1 (loose) to 3 (very tight). Overall: 1 (worst) to 9 (best).

<sup>v</sup>Flavor: M=Medium, G=Good, VG=Very Good, E=Excellent.

<sup>u</sup>Pericarp toughness: N=Not Tough; ST=Somewhat Tough; T=Tough; VT=Very Tough.

<sup>t</sup>Means differing by more than this amount are significantly different at P≤.05. – AOV not performed.

<sup>s</sup> $r^2$  for regression vs actual days to harvest is the proportion of variability explained by days to harvest. ns=regression not significant at P<.05.

Table 1. Yield, number of fruit, average fruit weight, and fruit quality of pumpkin cultivars in Wanatah, Indiana 2007.<sup>z</sup>

Cultivar	Seed Source <sup>y</sup>	Plants <i>no/plot</i>	Marketable Orange Fruit <sup>x</sup>			Total Marketable Fruit <sup>x</sup>		Mkt. Orange	Mkt. Orange	Mkt. Green	Cull	Vine Vigor <sup>w</sup>	Vine PMR <sup>w</sup>	Color <sup>w</sup>	Shape <sup>w</sup>	Sutures <sup>w</sup>	Peduncle length <sup>w</sup>	Peduncle width <sup>w</sup>	Peduncle Health <sup>w</sup>	Uniform <sup>w</sup>	Overall <sup>w</sup>
			<i>lb/plot</i>	<i>no/plot</i>	<i>lb/frt</i>	<i>lb/plot</i>	<i>no/plot</i>	9/5	9/28	9/28											
Gold Medal	RU	24	744	32	23.3	858	41	66	12	22	0	9	3	M	S-O	M	6	7	7	4	5
Mr. Wrinkles	SK	24	530	23	23.0	800	41	55	0	43	2	9	4	M	R-O	D	4	4	4	7	7
SSX 5121	SK	24	526	23	22.9	669	33	51	11	27	11	9	6	M	O	D	5	7	7	8	6
HSR 7010	HO	24	864	39	22.2	1072	53	51	20	25	4	6	7	L	R-O	M	5	4	3	7	4
HSR 7020	HO	24	604	28	21.6	972	47	31	20	35	13	9	8	L	S-R	S	5	4	3	6	4
HSR 7007	HO	24	558	28	19.9	828	48	37	20	41	2	8	7	L	R-O	S	5	6	5	7	5
Gold Medallion	RU	24	408	23	17.7	520	32	58	12	27	3	9	3	M	R-O	M	5	6	4	3	3
Spartan	SW	24	638	36	17.7	774	46	47	27	20	6	6	6	D	R	M	4	5	4	7	6
RPX 1295	RU	24	381	22	17.3	463	29	36	25	19	19	6	4	M	R	S	7	6	7	8	7
Appalachian	RU	24	360	21	17.1	514	36	39	9	34	18	9	3	M	R-O	S	5	4	4	6	5
HMX 6685	HM/ST	24	582	34	17.1	777	47	55	17	28	0	4	8	M	R-O	S	4	7	7	5	6
Gold Challenger	RU	24	414	26	15.9	446	30	64	15	12	9	5	4	M	R-O	M	6	6	7	6	6
20 Karat Gold	RU	24	509	33	15.4	647	46	42	21	25	12	5	4	M	R-O	S	6	6	7	4	5
Gladiator	HM/ST	24	292	20	14.6	560	43	33	8	47	12	8	7	D	S-R	M	4	5	4	8	7
HMX 6686	HM/ST	24	532	37	14.4	718	55	40	22	30	8	5	8	D	S	D	4	6	6	7	6
Magic Lantern	HM/ST	24	560	41	13.7	696	52	46	24	19	12	4	5	M	R-O	M	4	5	5	6	7
RPX 1626	RU	24	532	39	13.6	654	51	35	37	22	6	9	5	M	R-O	M	6	5	6	6	5
HSR 7018	HO	24	672	50	13.4	798	62	45	33	19	3	4	7	L	R	S	4	4	4	6	4
325	SW	24	566	51	11.1	636	62	58	20	17	6	7	4	M	S-R	D	3	4	3	8	5
Charisma	JS	24	341	31	11.0	457	44	42	23	27	8	8	3	M	S	D	5	4	3	8	5
HMX 5683	HM/ST	43	408	113	3.6	456	125	67	22	10	1	7	6	L	R	S	6	6	5	8	6
Prankster	RU	48	444	140	3.2	474	153	66	25	8	1	5	3	L	S	M	5	6	5	7	6
SSX 5078	SK	48	408	132	3.1	608	196	54	13	32	1	9	8	M	S-R	M	7	4	4	7	7
Kandy Korn	SW	20	72	79	0.9	72	79	90	1	0	9	2	3	M	S-R	S	5	5	3	7	5
Sweet Lightning	RU	21	82	103	0.8	82	103	83	17	0	0	6	5	MT	S	D	6	4	7	5	7
Gold Dust	RU	22	98	217	0.5	98	217	76	24	0	0	6	6	M	S	D	7	4	5	5	7
Gold Speck	RU	23	72	198	0.4	72	198	79	21	0	0	4	5	M	S	D	8	4	5	5	6

<sup>z</sup>Plot size: 36 ft. X 27 ft. with 44.8 plots and 1075 plants/A for pumpkins > 1.5 lb. ave. wt; otherwise 36 ft. X 13.5 ft. and 89.6 plots and 2150 plants/A.

<sup>y</sup>HM=Harris Moran, HO=Hollar, JS=Johnny's selected seeds, RU=Rupp, SK=Sakata, ST=Stokes, SW=Seedway.

<sup>x</sup>Marketable orange fruit includes all firm fruit at least one-half orange; total marketable includes all firm fruit of mature size and starting to turn orange.

<sup>w</sup>Vine vigor on 9/1, vine resistance to powdery mildew, peduncle and overall fruit quality on 9/15 rated on a 1 to 9 scale: 2=low vigor, heavy powdery mildew, short/thin/shriveled peduncle, non-uniform, poor quality; 5=average, 8=good vigor, little powdery mildew, extra long/extra thick/dark green solid peduncle, very uniform, high quality. Fruit color: D=dark, M=medium, L=light orange; MT=multi-colored. Shape: S=squat, R=round, O=oblong. Sutures:S=sahllow, M=Medium, D=Deep.

Table 1. Plant vigor and disease ratings for fresh market tomato varieties grown in Lake Co., IN 2007.

Variety	Seed Source	Plant Vigor <sup>y</sup>	HB Rating <sup>z</sup>	
			29 Aug	24 Sep
Applause . . . . .	Seminis	4.3 <sup>x</sup>	19	70
Sunshine . . . . .	Seminis	2.3	15	70
Red Defender . . . . .	Harris Moran	5.3	19	70
Bella Rosa . . . . .	Sakata	4.0	9	63
SVR 0170 1236	Seminis	3.7	15	55
RFT 4974 . . . . .	Syngenta	6.7	12	45
Crista F1 . . . . .	Harris Moran	7.0	19	45
STM 6701 . . . . .	Sakata	9	9	38
Linda . . . . .	Sakata	5.7	7	38
Redline . . . . .	Syngenta	6.0	7	38
Talladega . . . . .	Syngenta	7.0	7	38
BHN 589 . . . . .	Seedway	7.0	6	30
Reba . . . . .	Sakata	6.0	7	30
Biltmore . . . . .	Rispens	9	12	30
Scarlet Red . . . . .	Harris Moran	5.7	13	30
Florida 91 . . . . .	Rispens	8	9	24
Red Pride . . . . .	Sakata	6.0	5	24
Phoenix . . . . .	Rispens	ND	ND	24
Mountain Fresh Plus . . . . .	Rispens	8.3	5	19
RFT 6153 . . . . .	Seedway	8.0	6	15

<sup>z</sup> Plots were rated for severity of bacterial spot using the Horsfall-Barratt scale. Ratings converted to percent foliage affected.

<sup>y</sup> Plant vigor was rated 29 Aug on a 1 to 9 scale with 1 the least vigorous and 9 the most vigorous.