

## Pumpkin Cultivar Evaluation, Indiana 2004

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Pumpkins grown for Halloween and other decorative purposes continue to be an important crop for many Midwestern vegetable farmers. Breeders are developing new varieties with improved appearance and disease resistance or tolerance. Trials were conducted to evaluate new cultivars and lines and compare them with cultivars that have been available for a while.

**Materials and Methods.** Trials were established in two commercial pumpkin production fields and at the Throckmorton Purdue Agricultural Research Center (TPAC), Meigs Farm (Table 1). At all locations, a jack-o-lantern pumpkin trial was adjacent to a pie/mini pumpkin trial. The on-farm trials were unreplicated. The research center trials were set up as randomized complete block designs with 2 replications, and with 12 unreplicated plots bordering the main trials. At all locations, jack-o-lantern plots had two rows, and pie and mini-pumpkins one row per plot. In each plot 24 hills were seeded with two seeds each. In-row spacing for pie and mini-pumpkins was half that for jack-o-lantern pumpkins. Plants were thinned to the desired stand of 24 plants/plot several weeks after emergence. In some cases poor emergence and/or establishment led to a plant population below the desired level. At the research farm the field was flooded shortly after planting and so most of the second replication and about 1/3 of the first replication were replanted. At all locations, pumpkins were managed using production practices standard for that operation. At TPAC rainfall was supplemented with drip irrigation. At harvest, pumpkins were graded into marketable and cull categories. Marketable fruit were further separated into “orange,” if over 90% of the surface was orange, and “turning,” if the pumpkin had begun to turn orange but less than 90% of the surface was orange. Average weight per pumpkin was calculated. Pounds and number of fruit per plot were converted to tons and number per acre based on plot areas shown in Table 1. In order to analyze data across locations, a subset of the data was created that included nineteen jack-o-lantern cultivars with one plot each at CCTY, NHAV, and TPAC2. Analyses of variance were conducted on results for these plots, with mean separation using Fisher’s protected LSD at the 5% level. Plot means for all jack-o-lantern cultivars at each location are also presented. For the pie and mini-pumpkins, the two planting dates at TPAC were treated as separate locations, and analyses of variance were conducted treating the four locations as replications.

Table 1. Location, planting and harvesting dates, and plot size for jack-o-lantern pumpkin cultivar trials, Indiana, 2004.

Location	Code	Plant	Harvest	Row Spacing		Plant Spacing	Plot Area
				In plot	Betw. plots		
				<i>ft.</i>			<i>ft.<sup>2</sup></i>
Whitley Co.	CCTY	May 29	Sept. 7	7.5	15	5	1350
Allen Co.	NHAV	June 8	Sept. 11	10	11.5	4	1032
Tippecanoe Co.	TPAC1	June 3	Sept. 10	8	16	4	1152
Tippecanoe Co.	TPAC2	June 21	Sept. 30	8	16	4	1152

**Results and Discussion.** Results for the 19 varieties that were evaluated across locations are presented in Table 2. Pumpkins that averaged over 24 lb. per orange fruit included Harvest Time, Trojan, Gold Medal, Autumn King, RPX 1003 and 03 RPX764. Of these, Harvest Time had the greatest yield of orange fruit per acre at 14.8 tons, but 03 RPX764 did not produce significantly less. Harvest Time also had the highest percent orange fruit among these large varieties, over 90%, but not significantly more than 03 RPX764 or Trojan. Other cultivars with orange pumpkins larger than 24 lb. included Dependable, Howden Biggie and MSX 6007 (Table 3). RPX 1002 had pumpkins in this size range at two locations. Howden Biggie averaged over 30 lb. per orange pumpkin at all three locations, but also was relatively late in maturity, with less than 20% of the pumpkins orange by harvest time at NHAV and TPAC. Of these large pumpkins, Harvest Time and Dependable were given the highest subjective ratings for overall attractiveness (data not shown).

Among the cultivars analyzed across all locations, those with fruit that averaged between 15 and 22 lb. per orange fruit included Aladdin, Hybrid 510, Gold Gem, Magic Lantern, RPX 1006, 03 RPX763, RPX 03516 and New Rocket. RPX 1006 produced the greatest yield of orange fruit, 12.1 tons/A, but only Aladdin and 03 RPX763 produced significantly lower yield. Aladdin also had a significantly reduced plant population, which may have contributed to the reduced yield. Other pumpkins in this size range that were not analyzed across locations included Howden, MSX 6009, MSX 6003, and Phantom. Cultivars that received high ratings for overall appearance included Magic Lantern, Howden, and MSX 6003 (data not shown).

Cultivars with orange fruit between 12 and 15 lb. included Gold Bullion, RPX 03515, Howdy Doody, Magician, and Gold Standard, among those analyzed across all three locations. Gold Standard produced greater yield of orange pumpkins than others in this size category, except for Magician. Both also had more than 90% orange fruit at harvest. Merlin, MSX 6010 and Racer were also in this size category. Magician, Gold Standard, and Merlin received the highest ratings for overall appearance (data not shown).

Pumpkin yield and fruit size varied across locations. CCTY had the greatest yield of orange and orange +turning pumpkins and NHAV had the lowest. NHAV also produced

the smallest pumpkins. The soil at NHAV was a lighter texture than at the other two locations. Shortly after planting and application of a pre-emergence herbicide containing clomazone and ethalfluralin, heavy rains fell and water washed across the plot. This, combined with possible pre-existing soil compaction and heavy weed pressure, may have reduced pumpkin plant growth at that location, and consequently yield and fruit size. TPAC was intermediate in yield and produced the largest pumpkins. Data included in the analysis of all three locations came only from the June 21 planting date at TPAC. Other trials have shown decreased yield with later planting dates (unpublished data). TPAC had the heaviest soil with the highest organic matter content of the three locations and was the only site that was regularly irrigated. This might have contributed to greater average fruit weight at this location.

Two pie-sized and two mini-pumpkins were trialed at all locations. Results are shown in Table 4. Hybrid Pam and Iron Man (HMX 2690) produced similar yields of attractive pie pumpkins. Hybrid Pam was a little larger, averaging 4.6 lb. compared to 3.4 lb. for Iron Man. Hybrid Pam was also earlier, with more than 90% of the fruit orange by harvest time, compared to just over 50% for Iron Man. Foliage of Iron Man was observed to be much healthier at harvest than that of Hybrid Pam, due to Iron Man's tolerance to powdery mildew. Iron Man is also reported to be tolerant to phytophthora and fusarium fruit rots. The mini-pumpkins Apprentice (5682) and Gold Dust (RPX 3101) produced similar yields, but they differ in appearance. Gold Dust is a squat, heavily ribbed, yellow-orange mini-pumpkin. It is similar in appearance to Jack-B-Quick. Apprentice is a round, very lightly-ribbed, orange mini-pumpkin, that looks more like a miniature version of the larger jack-o-lantern pumpkins. It is similar in appearance to Wee-B-Little, but slightly larger. Both of these varieties would make attractive additions to a collection of mini-pumpkins.

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Table 2. Yield and fruit size of 19 jack-o-lantern pumpkin varieties, grown in Allen (NHAV), Tippecanoe (TPAC2), and Whitley (CCTY) Counties, Indiana, 2004.

Cultivar	Seed Source*	Plant Pop. No./A	Orange				Orange+Turning				All Pumpkins		
			Ave. Wt. lb.	Yield T/A	Num-ber No./A	Ave. Wt. lb.	Yield T/A	Num-ber No./A	Percent Orange % by no.	Yield T/A	Num-ber No./A	Pct. Cull % by no	
Harvest Time (ACX 101)	AC	886	28.2	14.8	1067	27.6	15.9	1155	91.7	16.6	1222	5.9	
Trojan	SW	785	27.1	9.0	655	25.7	11.1	858	76.0	11.9	939	8.1	
Gold Medal (REX 38050)	RU	898	26.4	9.6	706	25.1	13.5	1075	66.1	13.9	1117	4.3	
Autumn King (RWS 5668)	RU	898	26.3	11.0	836	24.1	16.5	1378	61.2	16.6	1392	0.9	
RPX 1003	RU	848	26.0	10.9	841	25.1	16.2	1298	64.6	16.9	1365	5.1	
03 RPX764	RU	873	24.9	13.8	1122	23.4	16.7	1422	79.5	18.3	1626	12.1	
Aladdin	RI	638	21.9	7.4	625	21.5	11.3	1022	63.2	11.7	1064	5.3	
Hybrid 510	AC	780	20.7	9.0	883	20.6	15.2	1509	56.0	15.5	1552	2.9	
Gold Gem	RU	924	20.6	9.8	939	20.5	14.2	1380	66.5	14.3	1394	1.1	
Magic Lantern	RI	898	16.3	10.7	1306	16.4	13.4	1640	79.6	13.8	1674	1.9	
RPX 1006	RU	873	16.2	12.1	1512	15.5	14.9	1904	79.6	15.3	1984	4.4	
03 RPX763	RU	835	15.9	7.3	856	15.6	11.2	1343	64.9	11.8	1481	14.1	
RPX 03516	RU	898	15.5	11.3	1460	14.9	17.3	2317	64.8	19.4	2674	13.0	
New Rocket	JS	898	15.2	11.0	1441	14.5	13.3	1828	79.3	14.3	1946	5.5	
Gold Bullion (REX 38040)	RU	911	14.3	8.7	1232	14.1	11.9	1711	72.3	12.1	1751	2.7	
RPX 03515	RU	785	14.3	8.3	1186	14.1	11.9	1636	74.2	13.1	1852	11.8	
Howdy Doody	RU	911	13.8	8.4	1204	13.0	11.4	1746	69.5	12.2	1882	8.2	
Magician	RI	898	12.6	10.5	1640	12.8	11.2	1730	94.3	12.0	1856	7.4	
Gold Standard	RU	936	12.3	12.3	1992	12.2	13.7	2232	90.5	14.1	2300	3.0	
LSD 0.05**		<sup>124</sup> (139)	20%	3.36	344	16%	<i>P</i> <.10	510	21	4.7	531	ns	
<i>Location</i>													
CCTY		761	19.4	13.1	1452	19.0	15.6	1734	83.3	15.8	1759	1.4b	
NHAV		993	16.9	7.4	929	17.0	10.7	1302	70.3	12.0	1497	13.4	
TPAC2		842	21.9	10.3	1015	20.4	14.8	1572	66.5	15.4	1650	3.7b	
LSD 0.05**		<sup>49</sup> (50)	7.4%	1.34	136	6.0%	1.79	203	8.5	1.88	211	—	

\*RU=Rupp Seeds, AC=Abbott&Cobb, JS=Johnny's Selected Seeds, RI=Rispens Seeds, SW=Seedway.

\*\*Means differing by more than this amount differ significantly at *P*≤.05 according to Fisher's protected LSD. Percent values indicate data were log-transformed prior to analysis and LSD is expressed as plus or minus a percent of the mean. For other transformations, means followed by different letters are significantly different. Numbers in parentheses are for comparisons with Aladdin or TPAC2.

Table 3. Average pumpkin size, yield, and number of pumpkins for cultivars grown at three locations in Indiana, 2004.

Cultivar	Seed Source*	Trial Location**	Plant Population No./A	Marketable Orange Pumpkins			Marketable Orange and Turning				All Pumpkins		
				Ave. Fruit Wt.	Yield	Number	Ave. Fruit Wt.	Yield	Number	Orange	Yield	Number	Culls
				lb.	T/A	No./A	lb.	T/A	No./A	% by no.	T/A	No./A	% by no.
03 RPX763	RJ	CCTY	774	18.3	12.4	1355	18.2	15.9	1742	77.8	15.9	1742	0.0
03 RPX763	RJ	NHAV	1013	12.2	2.3	380	12.3	3.4	549	69.2	4.6	886	38.1
03 RPX763	RJ	TPAC1	908	19.2	12.0	1248	19.2	14.1	1475	84.6	14.1	1475	0.0
03 RPX763	RJ	TPAC2	718	17.2	7.1	832	16.4	14.3	1739	47.8	14.9	1815	4.2
03 RPX764	RJ	CCTY	774	23.5	17.5	1484	23.4	18.9	1613	92.0	19.9	1678	3.8
03 RPX764	RJ	NHAV	1013	22.8	11.5	1013	22.4	12.7	1140	88.9	16.5	1688	32.5
03 RPX764	RJ	TPAC2	1172	26.8	17.2	1286	22.9	26.9	2344	54.8	29.6	2609	10.1
03 RPX764	RJ	TPAC2	832	28.5	12.4	870	24.5	18.5	1513	57.5	18.5	1513	0.0
ACX 102	AC	TPAC1	870	20.9	12.7	1210	21.3	17.7	1664	72.7	17.7	1664	0.0
Aladdin	RI	CCTY	516	22.3	8.3	742	22.7	9.5	839	88.5	9.5	839	0.0
Aladdin	RI	NHAV	760	14.3	2.4	338	18.8	6.3	675	50.0	7.6	802	15.8
Aladdin	RI	TPAC2	.	29.1	11.6	794	23.2	18.0	1550	51.2	18.0	1550	0.0
Autumn King	RJ	CCTY	774	25.1	11.0	871	23.5	17.4	1484	58.7	17.4	1484	0.0
Autumn King	RJ	NHAV	1013	24.3	10.3	844	22.7	16.7	1477	57.1	17.0	1520	2.8
Autumn King	RJ	TPAC2	492	19.2	3.6	378	16.9	7.3	870	43.5	7.3	870	0.0
Autumn King	RJ	TPAC2	908	29.4	11.7	794	26.2	15.4	1172	67.7	15.4	1172	0.0
Dependable	AC	TPAC1	643	35.4	16.1	908	31.1	25.3	1626	55.8	25.3	1626	0.0
Gold Bullion	RJ	CCTY	774	13.2	10.4	1581	12.9	14.3	2226	71.0	14.3	2226	0.0
Gold Bullion	RJ	NHAV	1013	14.4	7.6	1055	14.5	10.1	1393	75.8	10.5	1477	5.7
Gold Bullion	RJ	TPAC2	945	15.3	8.1	1059	14.9	11.2	1513	70.0	11.4	1550	2.4
Gold Gem	RJ	CCTY	774	20.9	13.5	1291	20.9	15.8	1517	85.1	15.8	1517	0.0
Gold Gem	RJ	NHAV	1013	19.7	5.0	507	19.8	12.1	1224	41.4	12.6	1266	3.3
Gold Gem	RJ	TPAC2	983	21.4	10.9	1021	20.9	14.6	1399	73.0	14.6	1399	0.0
Gold Medal	RJ	CCTY	774	27.0	10.0	742	23.9	15.8	1323	56.1	15.8	1323	0.0
Gold Medal	RJ	NHAV	1013	22.3	5.7	507	22.4	9.4	844	60.0	10.4	971	13.0
Gold Medal	RJ	TPAC1	908	29.4	14.4	983	26.5	21.5	1626	60.5	21.5	1626	0.0
Gold Medal	RJ	TPAC2	908	29.9	13.0	870	29.1	15.4	1059	82.1	15.4	1059	0.0
Gold Standard	RJ	CCTY	774	12.5	12.9	2065	12.4	13.0	2097	98.5	13.0	2097	0.0
Gold Standard	RJ	NHAV	1013	11.6	11.5	1984	11.7	11.8	2026	97.9	12.9	2195	7.7
Gold Standard	RJ	TPAC1	908	15.0	12.8	1702	15.1	16.0	2118	80.4	16.0	2118	0.0
Gold Standard	RJ	TPAC2	1021	12.8	12.3	1928	12.6	16.2	2571	75.0	16.3	2609	1.4
Harvest Time	AC	CCTY	774	27.9	18.9	1355	27.8	19.3	1387	97.7	19.3	1387	0.0
Harvest Time	AC	NHAV	1013	21.8	11.0	1013	21.9	11.6	1055	96.0	12.2	1182	10.7
Harvest Time	AC	TPAC1	908	32.9	18.7	1134	30.0	23.3	1550	73.2	23.3	1550	0.0
Harvest Time	AC	TPAC2	870	34.9	14.5	832	33.2	16.9	1021	81.5	18.2	1097	6.9
Howden	-	NHAV	1013	21.8	4.6	422	18.0	9.9	1097	38.5	10.1	1140	3.7
Howden	-	TPAC2	681	22.4	5.9	529	21.7	9.9	908	58.3	10.2	945	4.0
Howden Biggie	RI	CCTY	774	33.6	9.7	581	32.1	15.6	968	60.0	15.6	968	0.0
Howden Biggie	RI	NHAV	1013	32.0	2.7	169	22.9	11.6	1013	16.7	11.6	1013	0.0
Howden Biggie	RI	TPAC1	832	32.3	2.4	151	31.7	13.8	870	17.4	14.9	945	8.0
Howdy Doody	RJ	CCTY	774	14.5	11.3	1549	13.3	13.1	1968	78.7	13.4	2001	1.6
Howdy Doody	RJ	NHAV	1013	12.8	6.0	929	12.7	8.0	1266	73.3	9.8	1604	21.1
Howdy Doody	RJ	TPAC1	908	16.8	12.1	1437	16.5	15.3	1853	77.6	15.6	1891	2.0
Howdy Doody	RJ	TPAC2	945	14.0	7.9	1134	13.1	13.1	2004	56.6	13.3	2042	1.9
Hybrid 510	AC	CCTY	774	19.8	15.6	1581	19.3	21.1	2194	72.1	21.1	2194	0.0
Hybrid 510	AC	NHAV	886	19.1	4.4	464	20.0	13.5	1351	34.4	14.4	1477	8.6
Hybrid 510	AC	TPAC2	681	23.4	7.1	605	22.5	11.1	983	61.5	11.1	983	0.0
MSX 6003	ME	TPAC2	870	21.7	8.6	794	21.4	15.8	1475	53.8	15.8	1475	0.0
MSX 6007	ME	TPAC2	794	25.9	9.8	756	24.6	13.5	1097	69.0	13.8	1134	3.3
MSX 6009	ME	NHAV	675	10.5	2.7	507	11.2	4.5	802	63.2	5.1	886	9.5
MSX 6009	ME	TPAC1	718	20.3	9.2	908	16.1	16.5	2042	44.4	16.5	2042	0.0
MSX 6009	ME	TPAC2	908	14.0	14.3	2042	13.3	19.4	2912	70.1	19.4	2912	0.0
MSX 6010	ME	TPAC2	908	14.3	12.7	1777	13.4	15.0	2231	79.7	15.0	2231	0.0
Magic Lantern	RI	CCTY	774	16.1	11.7	1452	16.7	14.8	1775	81.8	15.5	1839	3.5
Magic Lantern	RI	CCTY	774	16.9	15.9	1871	17.1	16.9	1968	95.1	16.9	1968	0.0
Magic Lantern	RI	NHAV	1013	15.6	9.2	1182	15.8	12.0	1520	77.8	12.0	1520	0.0
Magic Lantern	RI	TPAC2	908	17.2	11.1	1286	16.7	13.5	1626	79.1	14.0	1664	2.3
Magic Lantern	RI	TPAC2	945	15.5	11.4	1475	14.8	14.0	1891	78.0	15.0	2042	7.4
Magician	RI	CCTY	774	13.0	14.5	2226	13.0	14.7	2259	98.6	15.0	2323	2.8
Magician	RI	NHAV	1013	10.6	6.2	1182	11.3	7.1	1266	93.3	7.8	1393	9.1
Magician	RI	TPAC1	908	16.3	14.8	1815	16.2	18.3	2269	80.0	18.4	2307	1.6
Magician	RI	TPAC2	908	14.3	10.8	1513	14.3	11.9	1664	90.9	13.1	1853	10.2

Table 3. Average pumpkin size, yield, and number of pumpkins for cultivars grown at three locations in Indiana, 2004 (cont).

Cultivar	Seed Source*	Trial Location**	Plant Population No./A	Marketable Orange Pumpkins			Marketable Orange and Turning				All Pumpkins		
				Ave. Fruit Wt.	Yield	Number	Ave. Fruit Wt.	Yield	Number	Orange	Yield	Number	Culls
				lb.	T/A	No./A	lb.	T/A	No./A	% by no.	T/A	No./A	% by no.
Merlin	HR	NHAV	1013	13.3	7.0	1055	14.9	12.0	1604	65.8	12.5	1688	5.0
New Rocket	JS	CCTY	774	16.1	14.8	1839	15.9	15.4	1936	95.0	16.0	2001	3.2
New Rocket	JS	NHAV	1013	15.0	10.1	1351	13.7	14.5	2110	64.0	16.5	2364	10.7
New Rocket	JS	TPAC2	908	14.4	8.2	1134	14.0	10.1	1437	78.9	10.3	1475	2.6
New Rocket	JS	TPAC2	681	16.5	13.7	1664	16.4	13.9	1702	97.8	13.9	1702	0.0
Phantom	RJ	CCTY	774	16.6	16.6	2001	16.6	16.6	2001	100.0	16.6	2001	0.0
Phantom	RJ	TPAC1	908	21.8	11.1	1021	19.9	18.8	1891	54.0	18.8	1891	0.0
RPX 03515	RJ	CCTY	774	14.1	10.7	1517	14.4	12.3	1710	88.7	13.0	1839	7.0
RPX 03515	RJ	NHAV	1013	10.1	5.5	1097	10.1	6.6	1308	83.9	7.6	1562	16.2
RPX 03515	RJ	TPAC1	908	15.3	11.5	1513	16.4	16.8	2042	74.1	17.7	2155	5.3
RPX 03515	RJ	TPAC2	567	18.6	8.8	945	17.7	16.8	1891	50.0	18.7	2155	12.3
RPX 03516	RJ	CCTY	774	15.2	14.7	1936	14.9	17.1	2291	84.5	17.4	2323	1.4
RPX 03516	RJ	NHAV	1013	14.9	9.8	1308	15.0	14.2	1899	68.9	17.6	2448	22.4
RPX 03516	RJ	TPAC1	908	18.6	11.6	1248	18.4	12.9	1399	89.2	13.2	1437	2.6
RPX 03516	RJ	TPAC2	908	16.4	9.3	1134	14.8	20.5	2760	41.1	23.3	3252	15.1
RPX 1002	RJ	CCTY	774	24.6	15.9	1291	24.2	17.6	1452	88.9	17.6	1452	0.0
RPX 1002	RJ	NHAV	675	20.1	4.2	422	20.1	6.4	633	66.7	6.7	675	6.3
RPX 1002	RJ	TPAC1	908	26.7	9.6	718	25.8	20.0	1550	46.3	20.5	1588	2.4
RPX 1002	RJ	TPAC1	908	27.3	8.8	643	26.7	21.7	1626	39.5	21.7	1626	0.0
RPX 1003	RJ	CCTY	774	25.7	14.5	1129	25.9	19.2	1484	76.1	19.2	1484	0.0
RPX 1003	RJ	NHAV	1013	23.5	7.9	675	22.2	15.0	1351	50.0	16.3	1477	8.6
RPX 1003	RJ	TPAC1	908	22.3	8.4	756	23.3	21.1	1815	41.7	21.1	1815	0.0
RPX 1003	RJ	TPAC2	756	28.7	10.3	718	27.1	14.4	1059	67.9	15.1	1134	6.7
RPX 1006	RJ	CCTY	774	15.7	16.5	2097	15.7	17.2	2194	95.6	17.2	2194	0.0
RPX 1006	RJ	NHAV	1013	13.5	8.5	1266	13.6	10.0	1477	85.7	10.7	1604	7.9
RPX 1006	RJ	TPAC2	529	15.8	7.4	945	15.8	9.5	1210	78.1	9.5	1210	0.0
RPX 1006	RJ	TPAC2	832	19.4	11.4	1172	17.1	17.5	2042	57.4	18.0	2155	5.3
Racer	JS	CCTY	645	12.3	11.9	1936	12.3	12.5	2033	95.2	13.4	2226	8.7
Racer	JS	TPAC2	870	11.2	9.6	1702	10.2	12.4	2420	70.3	12.9	2571	5.9
Trojan	SW	CCTY	774	27.8	10.7	774	26.1	11.8	903	85.7	12.2	936	3.4
Trojan	SW	NHAV	1013	22.3	6.1	549	22.5	9.0	802	68.4	11.1	1013	20.8
Trojan	SW	TPAC1	908	27.6	5.7	416	23.2	19.3	1664	25.0	19.5	1702	2.2
Trojan	SW	TPAC2	567	31.3	10.1	643	28.5	12.4	870	73.9	12.4	870	0.0

\*RU=Rupp Seeds, AC=Abbott&Cobb, HR=Harris Seed, JS=Johnny's Selected Seeds, ME=Meyers Seed, RI=Rispens Seeds, SW=Seedway

\*\*CCTY=Whitley Co., seed May 29, harvest Sept. 7; NHAV=Allen Co., seed June 8, harvest Sept. 11; TPAC1=Tippecanoe Co., seed June 3, harvest Sept. 10; TPAC2=Tippecanoe Co., reseed June 21, harvest Sept. 30.

Table 4. Yield and fruit size of 2 pie and 2 mini-pumpkin varieties, Allen (NHAV), Tippecanoe (TPAC-1, TPAC-2), and Whitley (CCTY) Counties, Indiana, 2004.

	Marketable Pumpkins					
	Seed Source*	Plant Pop.	Orange+Turning			%Orange
			Ave. Wt.	Yield	Number	
		<i>No./A</i>	<i>lb.</i>	<i>T/A</i>	<i>No./A</i>	<i>% by no.</i> <i>± s.e.m.</i>
<i>Cultivar</i>						
Hybrid Pam	AC	1721	4.6a	9.6	4016	90.3±5.5
Iron Man (HMX2690)	RU	1760	3.4b	8.8	5162	51.1±11.5
Gold Dust (RPX3101)	SW	1505	0.60d	3.9	12928	100.0±0
Apprentice (5682)	RU	1721	0.94c	5.7	11932	82.9±8.0
LSD 0.05**		NS	20%	1.94	1836	–
<i>Location</i>						
CCTY		1162	2.6a	6.7	7659	87.0±8.4
NHAV		2026	1.8b	4.0	6585	91.9±5.4
TPAC-1		1769	2.6a	9.4	10831	69.1±17.1
TPAC-2		1749	2.5a	7.8	8963	76.2±9.2
LSD 0.05**		197	20%	1.94	1836	–

\*RU=Rupp Seeds, AC=Abbott&Cobb, SW=Seedway.

\*\*Means differing by more than this amount differ significantly at  $P \leq .05$  according to Fisher's protected LSD. Percent values indicate data were log-transformed prior to analysis and LSD is expressed as plus or minus a percent of the mean. NS=not significant. – AOV not performed due to unequal variances.