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Lewis Jett West Virginia University, Lewis.Jett@mail.WVU.edu

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### 2023 Evaluation of Pumpkin Cultivars in West Virginia

Lewis W. Jett<sup>1</sup> and Josh Malencia<sup>2</sup>

# WVU Extension Horticulture, G215 Agriculture Sciences Bldg., Morgantown, WV 26506 Lewis. Jett@mail. WVU.edu

Pumpkins (*Cucurbita sp.* L.) are a very popular fall crop in West Virginia. Each year, new, commercial cultivars are released and growers must choose the appropriate cultivars for their respective markets. In 2023, sixteen jack-o-lantern types were evaluated for commercial production.

#### **Materials and Methods**

The pumpkin cultivars were direct-seeded on June 20, 2023 at Hazel Run Farm near Bruceton Mill, WV (Figure 1). Prior to seeding, 500 lbs. 19-19-19 fertilizer was broadcast and incorporated with a disk-harrow. Seeds were planted in bare-soil with no mulch. Each plot contained four plants, spaced 4 ft. apart within the row, and 8 ft. between rows (32 ft²/plant) resulting in approximately 1300 plants/acre. Weeds were controlled using mechanical tillage and no herbicides or fungicides applied. The experimental design was a randomized complete block design with 4 replications per cultivar. Marketable pumpkins were harvested on October 5, 2023 and average weight and number recorded.

#### Results

Large size (>25 lb.) cultivars included 'Cronus' and 'Large Marge', with 'Cronus' producing the highest yield per acre within this size class (Table 1). 'Cronus' also had better color and stem characteristics compared with 'Large Marge.'



**Figure 1.** Field trial evaluation of commercial pumpkins in 2023.

<sup>&</sup>lt;sup>1</sup>WVU Extension Horticulture Specialist

<sup>&</sup>lt;sup>2</sup>WVU Extension Horticulture Assistant

**Table 1.** Pumpkin cultivars evaluated in West Virginia, 2023.

				Marketable yield <sup>x</sup>	
Cultivar	Days to maturity <sup>z</sup>	Seed Vendor <sup>y</sup>	Avg. wt. (lbs.)	t·acre <sup>-1</sup>	no.·acre-1
Aladdin	100	Harris	16.2	3.6	2043
Ares	115	Osb	20.8	8.6	3405
Bayhorse Gold	100	Harris	18.9	7.2	3405
Big Deal	100	Osb	11.1	4.6	3405
Bellatrix	105	Osb	16.5	6.9	4767
Carrie	95	Harris	15.1	8.4	4540
Cronus	110	Harris	37.1	15.3	3746
Gladiator	115	Osb	15.7	7.7	4086
Griffin	110	Harris	20.2	26.8	9080
Hawk	95	Osb	24.9	11.6	3405
Hermes	90	Harris	11.9	8.3	5448
Justify	100	Osb	19.5	10.3	4086
Large Marge	105	Osb	36.0	6.1	1362
Moonshine	100	Osb	5.7	5.6	7241
Silver Moon	100	Harris	8.0	6.5	6810
Zeus	110	Harris	10.3	4.4	2724
Mean			11.5	7.0	3395
Standard Error			1.3	1.1	444

<sup>&</sup>lt;sup>z</sup>Based on optimal growing conditions referenced from seed vendors

The majority of cultivars produced pumpkins in the medium size class (15-25 lbs.). 'Griffin' is a tall pumpkin with good color, medium ribbing and good stem quality. This cultivar produced significantly high tonnage per acre as well as fruit count (Table 1). 'Justify', 'Hawk', 'Bellatrix' and 'Hermes' produced high yields with respect to pumpkin count and average weight per pumpkin. 'Bayhorse Gold' and 'Gladiator' did not produce the highest yields, but consistently perform well in West Virginia as a medium-size, jack-o-lantern pumpkin. 'Moonshine' produced high yields of small (<10 lb.), uniform, white pumpkins.

Pumpkins are an excellent, direct market crop for many farms in Appalachia. In this trial, we experienced mid-season deer damage, but fencing was later deployed to protect the crop. Input costs per acre for pumpkins are relatively low and market outlets are diverse such as U-Pick, Farm-to-School and roadside stands.

<sup>&</sup>lt;sup>y</sup>Harris Seeds, Rochester, NY; Osborne Seeds, Mt. Vernon, WA

<sup>&</sup>lt;sup>x</sup>Based on plant populations of  $\approx$ 1300 plants/acre.

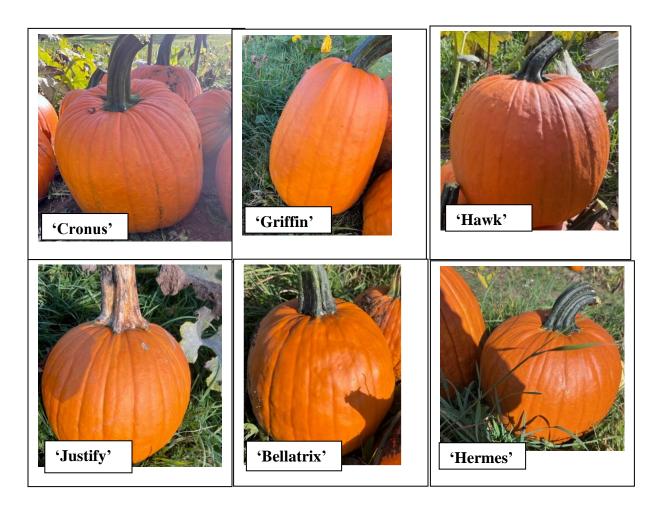


Figure 2. Pumpkin fruit characteristics of top performing cultivars.

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