2003 PUMPKIN VARIETY TRIALS REVEAL OUTSTANDING SELECTIONS

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Decent growing conditions resulted in reasonably good yields in the 2003 Georgia pumpkin variety trial. Average fruit size was comparable to that advertised for most varieties. Once again, a separate trial was conducted in 2003 on miniature pumpkins to more accurately reflect differences among these varieties. Although, some varieties have now been in the Georgia trial for five to six years, many of the ones tested in 2003 were being evaluated in Georgia for the first or second time. Although excellent yields were the recorded for most varieties, growers should keep in mind that yields in these small plot trials are greater than would be expected in large field production. However, the comparison between varieties remains valid.

Methods

Twenty-two commercially-available pumpkin varieties were compared at the Georgia Mountain Branch Experiment Station (elev. 1900 feet) in Blairsville, Georgia. All pumpkins were field-seeded on June 10-11, 2003 into a Transylvania clay loam soil. Plots consisted of single rows which contained an appropriate number of hills for each variety's plant habit. Vining types were planted with four hills per plot, semi-bush (or semi-vining) types with six hills and bush types with eight hills. Plots were 16 feet in length with 12 feet between rows. The plantings were arranged in a Randomized Complete Block Design with three replications each.

Normal cultural practices were used for bare ground pumpkin culture in Georgia. Base fertilizer consisted of 300 pounds/A of 10-10-10 incorporated prior to planting followed by two side dress applications of 10-10-10 (300 pounds/A each). Ethafluralin (0.75 lb a.i./A) was applied pre-emergence for weed control. Fungicide and insecticide applications were made according to current University of Georgia recommendations. Irrigation was applied as needed.

Pumpkins were harvested at maturity on October 1-2, 2003. Data were collected on yield, fruit number and weight, rind color, rind texture and fruit shape. Results are summarized in Tables 1.

Results

Yields were very good for several varieties. Individual pumpkin weights were generally about what would be expected according to commercial variety descriptions or maybe slightly less. Conditions were generally favorable for pumpkins with occasional rains during the season. "Prizewinner" produced the greatest yield and largest fruit size among all varieties; it was the only "giant" size variety in the test and the only pumpkin that averaged over 23 pounds.

Some of the large- and medium-sized varieties produced yields and fruit numbers within the range of acceptability in north Georgia. There were some varieties that did not perform at what would be considered acceptable for production in Georgia. However, some of these

varieties have performed better in previous years. ‘Gold Medal’, ‘Jumpin; Jack’, ‘Gold Strike’ and ‘Gold Rush’ trailed most other varieties in the 18-25 pound size class. They did not produce yields and fruit numbers per acre that were competitive with other similarly-sized pumpkins. ‘Aladdin’ and ‘Autumn King’ were the top performers among the 18-25-pound pumpkins.

Among pumpkins in the 10-18-pound range, ‘Ghost Rider’, ‘Gold Fever’, ‘Gold Gem’, ‘Howdy Doody', ‘Magic Lantern’, ‘Jackpot’, ‘Pro Gold #200' and ‘Sorceror’ were the best performers with yields above 50,000 pounds per acre. ‘Harvest Jack’ and ‘Old Zeb’s’ did not produce as much.

Among pumpkins in the five to 10-pound range there were no particularly outstanding varieties. In the two to five-pound size class, ‘Oz' outperformed the other varieties tested, which were both white pumpkins. Among the white pumpkins ‘Casper’ outyielded ‘Lumina’ but did not have fruit that was as attractive.

Marketability was exceptional at harvest for most varieties. ‘Gold Strike’ (60%), ‘Casper’ (80%), ‘Gold Rush’ (76%) and ‘Ol’ Zeb’s’ (80%) had the lowest marketability. All others were above 80% marketable. The variance among varieties for rind color and rind texture were in accordance with variety descriptions. Rind color ranged from deep orange to light orange. ‘Lumina’ and ‘Casper’ were the only pumpkins in the trial with a white rind. Fruit shape was generally in accordance with the type of pumpkin, with smaller pumpkins having a flatter shape.

Overall, ‘Autumn King' was the most exceptional performer. It achieved a size of just over 23 pounds on average with over 3,400 fruit per acre. ‘Aladdin’, ‘Magic Lantern’, ‘Howdy Doody’ and “Pro Gold #200' were also outstanding performers.

Table 1. Yield, number, marketability and horticultural characteristics of 26 varieties of pumpkins grown at Blairsville, GA in 2003.

Variety	Sponsor	No. Fruit/A	Yield[2] (lb/Acre)	Fruit Wt (lbs.)	Percent Market-able	Wt Large	Wt Small	Rind[3] Color	Fruit[4] Shape	Rind[5] Text-ure
Alladin	Harris Moran	3403	74850	22.0	94.8	37.5	7.4	1.3	23.0	2.0
Autumn King	Rupp	3479	78537	22.3	93.3	31.5	8.2	2.0	3.7	2.0
Casper	Rupp	2798	21281	7.4	79.6	13.3	1.7	5.0	2.7	3.0
Ghost Rider	Rupp	5143	61377	13.4	84.1	24.3	3.3	1.3	2.3	2.0
Gold Fever	Rupp	4235	55070	12.6	95.4	23.7	4.6	1.7	2.3	2.0
Gold Gem	Rupp	3630	67862	18.7	95.8	36.2	4.8	1.3	2.7	1.7
Gold Medal	Rupp	1966	44048	23.0	70.1	42.9	6.2	1.7	3.0	1.7
Gold Strike	Rupp	1059	18403	18.0	60.2	29.0	6.2	1.7	3.3	2.0
Gold Rush	Rupp	1815	40562	20.3	76.1	33.4	5.6	2.0	2.7	2.0
Harvest Jack	Seeds Design	2571	40478	16.9	85.9	35.5	7.3	1.3	3.7	1.7
Howdy Doody	Rupp	4159	69635	16.7	90.7	30.0	8.6	2.3	2.7	2.0
Jackpot	Harris Seeds	3025	56934	18.7	93.3	27.2	5.8	2.0	2.7	2.0
Jumpin' Jack	Seeds Design	2269	49100	23.0	75.3	34.4	6.0	2.0	4.0	2.0
Lumina	Rupp	2420	8058	3.4	88.0	10.2	0.9	5.0	2.3	2.7
Magic Lantern	Harris Moran	3933	64867	16.4	96.4	26.3	4.2	1.0	2.7	2.0
Mystic Plus	Harris Moran	3479	22419	6.6	86.6	12.8	3.4	1.7	2.0	1.7
Ol' Zeb's	Rupp	2949	48748	15.9	79.6	30.4	4.3	1.7	2.3	1.7
Orange Smoothie	Seminis	4159	26454	6.9	81.8	14.5	1.9	1.7	3.0	2.0
Oz	Harris Moran	11571	39480	3.4	92.3	4.8	1.2	2.0	2.0	2.0
Prizewinner	Rupp	1361	105202	75.6	99.4	104.8	33.5	2.0	2.0	2.0
Pro Gold #200	A&C	4311	71874	16.4	91.0	29.0	6.9	1.7	3.7	2.0
Sorcerer	Harris Moran	6050	59301	15.0	95.6	22.2	4.3	1.0	2.0	2.3
Mean of Test		3626.0	52479.0	17.8	86.6	29.7	6.2	2.0	2.7	2.1
L.S.D. (0.05)		1850.0	29257	7.9	18.2	12.6	10.5	0.7	1.2	0.5
C.V. (%)		31.00	33.80	27.00	12.70	25.70	102.40	22.10	26.40	16.50

One-row plot, 16 ft. long x 12 ft. wide. Hills/plot: Vine-4, Semi-bush-6, Bush-8. [2]Marketable Yield. [3]Based on scale: 1=deep orange; 2=medium orange; 3=light orange; 4=yellow; 5=white. [4]Based on scale: 1=flat; 2=round; 3=oval; 4=oblong. [5]Based on scale: 1=coarse; 2=medium; 3=smooth