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The IPM Scout

Mini-Pumpkin Disease and Yield Trial

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The experiment was conducted in Charleston, SC, on raised beds on 12-ft centers covered with white on-black polyethylene mulch. Pumpkins were seeded in the greenhouse on July 8 and transplanted to the field on July 19, spaced 3 ft apart within rows. For each cultivar, there were four, 30-ft-long plots with eight plants. The plants were fertigated through drip irrigation with 3 lb/A N and K per week. Thiodan, Asana, and Lannate were used on alternate weeks to control cucumber beetles and aphids. Squash vine borers and loopers were controlled with Mattch. Quadris, Reach, Ridomil Gold Bravo, and Nova (experimental use only!) were applied for disease control. Ripe fruit were harvested on Sep. 27 and Oct. 5 and graded as marketable or nonmarketable based on virus symptoms (color breaking and knobby fruit), other disease symptoms, surface blemishes, pickle worm damage, or other damage. Diseases included *Fusarium* fruit rots, black rot, anthracnose, and powdery mildew on >50% of the handle surface.

Downy mildew pressure was severe in September, but powdery mildew severity was low. Baby Boo, Jack-B-Quick, Jack Be Little, Munchkin, Sweetie Pie, and Lil' Ironsides were the cultivars most susceptible to downy mildew, whereas Lil' Goblin,

Wee-B-Little, and Baby Bear were the least susceptible cultivars. All highly susceptible cultivars except Lil' Ironsides had pointed leaves distinct from typical *C. pepo* pumpkin leaves and very small, flattened and deeply ribbed ("scalloped") ornamental-type fruit. This leaf type appears to be associated with a greater degree of susceptibility to downy mildew than mini-pumpkins with typical *C. pepo* pumpkin-shaped leaves. HMX 5682, which has typical pumpkin-shaped leaves but scalloped fruit, had less downy mildew than the named cultivars with scalloped fruit except Sweetie Pie. All five named cultivars with scalloped fruit plus Wee-B-Little had very low levels of powdery mildew on lower leaf surfaces. (Continued on page 3)

Cultivar Corner

Finally, after 4 years of testing cultivars, I've found one that really caught my eye! '**Hybrid Pam**' from Rupp's Seeds is truly a deep orange pumpkin with a long, dark green handle. In the 1999 trial in Charleston, SC, the fruit were small, averaging 3.6 lb apiece, and very uniform. This cultivar is susceptible to both powdery and downy mildew, and the vines were mostly gone by harvest. Nevertheless, we harvested an average of 11.5 marketable pumpkins from eight plants, one of the most productive cultivars we've grown in coastal SC conditions. Virus pressure was low this season, so I don't know how the fruit hold up to virus infection.

Market Window

The Alabama Pumpkin Association will hold its 3rd annual meeting and short course on Sat., March 11, 2000, at the newly renovated Botanical Gardens in Birmingham, AL, from 9:00 a.m. to 4:00 p.m.

Registration will begin at 8:30 a.m. and the cost is \$10 per person, which includes lunch. The keynote speaker will be Mr. Ron Macher, a farmer for 35 years and the founder, publisher and editor of the award-winning *Small Farm Today* magazine. In 1998, Macher was named one of the top 25 agricultural leaders in the country by *Farmer's Digest*.

For more information, contact Mr. Dwight N. James, President, at (256) 383-4831 (home), (256) 386-5026 (work) or (256) 383-4043 (fax). Anyone interested in commercial pumpkin production will find this meeting worthwhile.



Ask the Great Pumpkin

Q: Are there seed companies out there that offer a greater variety of pumpkin seeds than others?

GP: Yes. Listed below is a sampling of seed companies that seem to offer a wide variety of pumpkin cultivars. Remember that certain cultivars may be available from only one source.

Harris Seeds

60 Saginaw Drive
P.O. Box 22960
Rochester, NY 14692-2960
(800) 544-7938
FAX (716) 442-9386

Rupp Seeds

17919 County Road B
Wauseon, OH 43567
(419) 337-5491
FAX (419) 337-5491

Wilhite Seed, Inc.

P.O. Box 23
Poolville, TX 76487
(800) 828-1840

FAX (817) 599-5843

Johnny's Selected Seeds

1 Foss Hill Road
RR 1 Box 2580
Albion, ME 04910-9731
(207) 437-4301
FAX (800) 437-4290

Liberty Seed Company

P.O. Box 806
Philadelphia, OH 44663-0806
(330) 364-1611
FAX (330) 364-6415

Stokes Seeds, Inc.

Box 548
Buffalo, NY 14240-0548
(716) 695-6980
FAX (888) 834-3334 (toll-free)

Holmes Seed Company

2125 46th Street NW
Canton, OH 44709
(330) 492-0123
FAX (330) 456-9705

Abbott & Cobb

P.O. Box 307
Feasterville, PA 19053-0307
(215) 245-6666
FAX (215) 245-9043

Siegers Seed Company

8265 Felch Street
Zeeland, MI 49464-9503
(800) 962-4999
FAX (616) 772-0333

Cultivar ¹	Source	Fruit type ²	Downy mildew severity (%)	Powdery mildew severity, (%) , lower leaf surface	Total fruit, no./ 30 ft.	Marketable fruit, no./ 30 ft.	Diseased fruit (%)
Baby Boo	Wilhite	Scalloped	70.0 a ³	1.0 c	118.3 ab	61.3 a	40.4 a
HMX 5682..	Harris Moran	Scalloped	42.5 cde	5.4 abc	68.3 abc	25.7 bcde	13.7 b
Jack Be Little	Johnny's	Scalloped	<u>65.0</u> ab	1.0 c	108.5 ab	45.0 abc	13.9 b
Jack-B-Quick	Rupp Seeds	Scalloped	<u>67.5</u> ab	1.0 c	64.8 abc	31.7 bcd	22.3 ab
Munchkin	Wilhite	Scalloped	<u>64.5</u> ab	1.0 c	121.2 a	52.7 ab	24.7 ab
Sweetie Pie	Stokes	Scalloped	<u>62.5</u> abc	1.0 c	62.6 bc	22.5 cde	21.5 ab
Baby Bear	Johnny's	Round	22.3 e	9.6 abc	<u>19.5</u> d	<u>10.7</u> de	13.3 b
HMX 9699	Harris Moran	Round	47.5 bcd	<u>11.0</u> ab	<u>21.0</u> d	<u>8.5</u> de	17.0 b
Lil' Goblin	Harris Seeds	Round	30.0 de	<u>12.7</u> a	79.4 ab	35.0 abcd	21.3 ab
Lil' Ironsides	Harris Seeds	Round	<u>58.7</u> abc	6.3 abc	<u>27.8</u> cd	<u>14.7</u> de	9.0 b
Wee-B-Little	Johnny's	Round	25.0 e	1.6 bc	<u>0.4</u> e	<u>0.3</u> e	0 c

¹All cultivars had orange fruit except Baby Boo, which has white fruit.

²Cultivars with scalloped fruit generally weighed ≤ 0.25 lb; round-fruited cultivars weighed ≤ 2 lb.

³For each column, only averages with no letters in common are statistically different (P=0.01). Averages for the best cultivars are shown in **bold**, averages for the worst are underlined; within each column, the best and worst are statistically different and cultivars in regular type are intermediate.

Baby Boo, Munchkin, and Jack Be Little produced the greatest number of total and marketable fruit, whereas Lil' Ironsides, Baby Bear, HMX 9699, and Wee-B-Little produced the least fruit. Wee-B Little had very compact vines and hardly produced any fruit. Among cultivars with scalloped fruit, Baby Boo produced more marketable fruit than HMX 5682, Jack-B-Quick, and Sweetie Pie, but had a significantly greater percentage of diseased fruit than Jack Be Little and HMX 5682 and four round-fruited cultivars. Lil' Goblin produced more total fruit than the other cultivars with round fruit, but there were no differences in the number of marketable fruit or percent diseased fruit among these cultivars.

Overall, Munchkin and Baby Boo were the most productive mini-pumpkins in this trial, although these two cultivars had high percentages of diseased fruit.

Next issue (Apr. 2000): More trial results of 1999.

SC Pumpkin News

VOLUME 4, No. 3

January 2000

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Published quarterly (Jan., Apr., Jul., & Oct.). To subscribe, mail your name, address, and E-mail address (if available) to SC Pumpkin News, c/o Dr. Anthony P. Keinath, Coastal REC, 2865 Savannah Highway, Charleston, SC 29414-5332. Back issues are available at no charge. **SC Pumpkin News** is available on the World Wide Web at <http://virtual.clemson.edu/groups/hort/vegprog.htm>.

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