

2008 Fresh Market Vegetable Varieties Trial Report

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Fresh market vegetable variety trials were conducted at the OSU South Centers research farm in Piketon, Ohio during the 2008 growing season. This was a good year to evaluate varieties under one of the hottest and driest growing seasons on record at Piketon. Even though plant stress was high due to these growing conditions most evaluated varieties performed well. All trials except the ornamental corn were irrigated as needed. Each variety and experimental line was grown in accordance with the recommendations outlined in the *Ohio Vegetable Production Guide* (OSU Bulletin 672). All experiments were evaluated in either a randomized complete block design with four replications or as a single row observation planting with no replications.

Field trials were conducted on ornamental corn, watermelon, cantaloupe, pumpkins, summer squash, bell pepper, fresh market tomato, grape tomato, and cucumbers. The objectives were to rate and observe specific genetic lines for their production and marketing characteristics. This report highlights results of the trials.

These field trials were highlighted and tours given at the Annual Horticulture Field night held on August 14 where more than 115 growers and industry professionals were able to walk the trials and view the entries. A Pumpkin Twilight tour was conducted of the pumpkin trials and ornamental corn trials on October 16 where more than 50 growers and industry professionals were able to walk the trials and view the entries. Also, these field trials were highlighted at numerous tours and visits by OSUE and OARDC administration, government officials, individual growers, cooperating seed companies, international visitors, scientists, and scholars.

Results

Watermelon

Eight varieties were tested: HMX 4915, Crunchy Red, Tri X Brand 313, SP-4, Melody, AX 3022, Harmony, and Lantha. There was no statistical difference among average fruit weight or marketable tons per acre. Planting of this trial was delayed to observe performance for a late season harvest window.

Fresh Market Tomato

Twelve varieties were tested: SVR 1400, HMX 6830, Scarlet Red, HMX 7838, Mountain Glory, Rocky Top, SRV 01701236, SRV 01721400, Phoenix, Biltmore, Polbig, and Fletcher. There was no statistical difference in average total pounds of fruit per acre. The average fruit weight among varieties was not statistically different. Average fruit weight was 0.66 pound.

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Grape Tomato

One grape tomato variety HMX 6830 was tested with the average pounds of fruit per acre at 92,250 pounds. Average fruit weight was 1.9 ounces.

Pumpkins

- Three varieties were tested: Gladiator, Spartan, and Camaro. Camaro had the fewest number of orange fruit per acre (1,000) and the fewest pounds of orange fruit per acre (16,104). Average fruit size for all entries ranged between 15 and 19 pounds.
- Ten varieties were planted as observation trials only by seed company request: Treasure, Progress, Packer, Capital, Superior, Summit, Warlock, Magic Wand, Field Trip, and Gargoyle.

Summer Squash

Three varieties were tested: Payroll, Spineless Beauty, and Paycheck. Two varieties were planted as observation trials only by seed company request: Reward and HMX7726. Six varieties were tested for powdery mildew resistance: Gentry, Spineless Beauty, Sunglo, Amatista, Payroll, and Envy.

Ornamental Corn

Seven varieties were tested: Autumn Explosion, RBV 1002 UR, RBV 8000, RBV 3004, RBV1002SL, Redi Maize, and RBV 1009N. Six varieties were planted as observation trials only by seed company request: RBV 1402BL, RBV 5000, RBV 1009SL, RBV 1302R, RBV 4000, and RBV 7000. There was no statistical difference among marketable ears per acre, average ear length, or average ear width.

Cantaloupe

Four varieties were tested: Aphrodite, Athena, Pixie, and RML 0409. Early season cucumber beetle and bacterial wilt disease pressure was heavy even with following recommended cultural practices. Pixie seemed more susceptible to bacterial wilt disease and was not included in the data analysis. Average total fruit per acre was statistically different among varieties with RML 0409 producing 11,111 fruit per acre. Aphrodite (5,278 fruit per acre) and Athena (6,667 fruit per acre) were not statistically different from each other.

Bell Pepper

Six varieties were tested: Declaration, Karisma, Revolution, PS 9928302, PS 09941819, and Aristotle. Average fruit weight (0.39 pound) was not statistically different among varieties. Mean pounds of medium (21,711.3), large (15,785.7), and select (3,758.9) fruit per acre were not statistically different among varieties.

Total pounds of fruit per acre that was statistically different among varieties:

t Grouping		Mean	TRTMT
	A	84875	Karisma
	A		
	A	74571	Revolution
	A		
B	A	71089	PS 09941819
B	A		
B	A	69161	Aristotle
B	A		
B	A	65304	Declaration
B			
B		51018	PS 9928302

Cucumber

Seven varieties were tested: Diomede, Stonewall, Cobra, Lafayette, NUN 5523, Jackson, and Wainwright. Three varieties were planted as observation trials only by seed company request: BCS-039, HMX 7423, and Cutter. There was no statistical difference in average total number of fruit per acre (86,989.8) among varieties. Average total number of fruit per acre ranged from 68,571-99,643. There was no statistical difference in the average number of 24-count boxes of U.S. fancy per acre (1,139.843) among varieties. The average number of boxes of U.S. Fancy per acre ranged from 887.2-1,455.4. There was no statistical difference in the average number of boxes of U.S.#1 per acre (355.9) among varieties. The average number of U.S.#1 boxes per acre ranged from 194.8-417.2. There was no statistical difference in the average number of boxes of U.S.#2 per acre (212.6) among varieties. The average number of U.S.#2 boxes per acre ranged from 115.3-328.7. There was no statistical difference in the average number of boxes of total boxes per acre (1,708.4) among varieties. The average number of total boxes per acre ranged from 1,329.6-2,076.3.

Average weight (lb.) of fruit that was statistically different among varieties (LSD=0.04):

t Grouping		Mean	Variety
	A	0.46	Jackson and Wainwright
B	A	0.44	Lafayette and Diomede
B	A	0.43	NUN 5523
B		0.41	Cobra
B		0.40	Stonewall