

2015 Seedless Watermelon Variety Trial Results

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Today's consumers expect to purchase high quality, flavorful, locally grown produce. One of the staples of summer produce markets are watermelons. In current American culture, seedless watermelons are preferred. This was not always the case, but has been for about the last decade or so. Vegetable growers are constantly expanding produce offerings, and the market is demanding more seedless watermelon production.

In 2015, researchers from Penn State Cooperative Extension conducted a replicated variety trial at the Southeast Research and Extension Center in Landisville, Pennsylvania to compare 29 different seedless watermelon varieties and 3 seeded varieties, most of which are commercially available. Most of the varieties performed well, and produced flavorful fruit which would be marketable.

Methods:

Seedless watermelon transplants and the pollenizer variety SP-6 were seeded in plug trays on April 30th, 2015. Transplants were placed in the field on May 26th, on 3 foot spacing within the row, with 9 foot spacing between the rows. A seeded pollenizer (SP-6) was planted every 6 plants to ensure proper pollination of the seedless varieties. Black plastic raised beds with double-row drip tape were used as well. All plots received season long applications of insect and disease control sprays consistent with the Pennsylvania Commercial Vegetable Production Guide. Fertilization was provided through the drip tape as needed. Weed control was performed both prior to and after planting, but proved to be less than desirable. Melons were harvested three times over a three week period, utilizing several ripeness indicators. Disease pressure was relatively low, with sporadic downy and powdery mildews, which did not affect melon yield.

Results:

See table on the back of the sheet.

Other notes:

Informal tasting of each watermelon variety occurred after performing brix readings. Notable flavorful varieties included Bingo, Harvest Moon, Orange Crisp, Traveler, and Crispy Winner. Two orange flesh varieties were planted; Orange Glo is a large, seeded variety, and Orange Crisp is a round, seedless variety. Amish Moon and Stars is an heirloom seeded variety with large, oblong fruit. Throughout the entire trial, almost no hollow heart was observed, with Neptune showing some symptoms, but not enough to be unmarketable. Overall, the trial was very successful, and proved that quality seedless watermelons can be grown in Pennsylvania with favorable yields.

Results:

Variety	Seedless (S) Seeded (SD) Orange Flesh (O)	Avg wt. per melon (lbs)	Avg melons per plant	Melons per acre	Tons per acre	Cwt per acre	Avg Brix
SV0258WA	S	16.1	3.7	4400	35.4	707.5	12.1
Exclamation	S	15.4	3.5	4200	32.4	647.6	12
CRISPY WINNER	S	13.5	3.7	4400	29.8	595.9	12.3
Orange Crisp	O S	12.8	3.7	4400	28.3	565.1	11.6
SV2757WA	S	12.4	3.5	4250	26.3	525.5	11.8
Melody	S	12.7	3.4	4100	26.1	522.2	12
USS 7031	S	15.5	2.8	3300	25.5	510.0	12.7
Troubadour	S	11.5	3.6	4350	25.1	502.4	12.6
SV7018WA	S	15.0	2.6	3150	23.6	472.0	12.4
Talca	S	13.4	2.9	3500	23.4	468.9	11.7
Wayfarer	S	11.9	3.2	3800	22.7	453.7	12.3
Bingo	S	11.9	3.2	3800	22.5	450.8	12.9
Triple Crown	S	12.9	2.9	3500	22.5	450.6	11.8
Captivation	S	12.5	3.0	3600	22.5	450.0	12
Millionaire	S	13.2	2.8	3400	22.5	449.3	12
SV8298WA	S	13.6	2.8	3300	22.4	448.2	12.1
Amish Moon and Stars	SD	19.2	1.9	2300	22.1	441.7	10.8
Orange Glo	O SD	17.1	2.0	2450	21.0	419.4	11.4
Crunchy Red	S	13.3	2.6	3150	21.0	419.1	11.8
Secretariat	S	12.5	2.8	3350	20.9	417.6	12.9
Harmony	S	10.9	3.0	3650	19.9	398.3	12.5
Raider	S	11.4	2.8	3400	19.4	387.9	12.2
Traveler	S	11.3	2.8	3300	18.7	373.1	11.9
Harvest Moon	S	11.6	2.6	3100	18.0	359.6	12.2
Distinction	S	14.0	2.1	2550	17.9	357.8	11.7
USS 7015	SD	12.9	2.3	2700	17.3	347.0	12.3
Fascination	S	12.0	2.3	2800	16.7	334.6	11.6
Neptune	S	12.1	2.3	2750	16.6	331.7	11.5
Joyride	S	14.1	2.0	2350	16.5	330.8	11.5
Citation	S	10.8	2.5	3050	16.5	330.5	12.2
Poseidon	S	10.6	2.6	3100	16.5	329.3	11.3
Gentility	S	6.4	3.2	3850	12.3	246.5	12.3