

EVALUATION OF WATERMELON CULTIVARS

for SOUTHERN OHIO, 1999

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This Watermelon cultivar trial compared 13 cultivars using 4 replications of each cultivar. Objectives were to evaluate potential watermelon cultivars for their suitability in a southern Ohio growing season. The plots were located at the Ohio State University Enterprise Center research and demonstration plots in Hillsboro, Ohio.

METHODS:

Planting: Seeded 4/29/99 into 50-cell Pro Trays using a peat-vermiculite soil-less mix. Cells were thinned as needed to one plant per cell. Plants were field planted on June 18, 1999 using a Water Wheel Planter.

Spacing: Rows were 5 feet apart, with plants set onto raised beds at 36" spacing between each plant in the row. The beds were covered with black plastic mulch with trickle irrigation under the mulch prior to planting. Seven plants per plot (5' x 20') provided a plant density of approximately 3,080 plants per acre.

Soil Type: Haubstadt Silt Loam

Fertilizer: Applied 120 lbs. N, 120 lbs. P₂O₅ and 120 lbs. K₂O per acre prior to laying plastic mulch according to soil test recommendations. 20-20-20 (1 lb./100 gallon water, 8 oz. per plant) with transplanting water.

Weed Control: 4 pt. / Acre Curbit 3EC pre-plant between rows on 6/17/99; hand hoed and cultivated as necessary.

Pest Management: 2.5 fl. Oz. Furadan 4F per 1000 linear feet of row applied as a 7 inch spray band over the row prior to laying the plastic mulch. Pounce on 7/21 and 8/10 at a rate of 5fl oz./A; Sevin XLR 1 qt./A 7/29, 8/19; Bravo Ultrex 2 lb./A on 7/21/, 7/29, 8/10, 8/19.

Irrigation: Trickle irrigated on 6/22, 6/29, 7/11, 7/14, 7/28, 8/2, 8/13 and 8/23

Harvests: August 18, 1999 and September 1, 1999

RESULTS:

There was average fruit set and yield throughout the harvest season. Vine health and quality remained good throughout the season. Harvest yield and quality attributes were collected and observed.

The cultivar Mardi Gras had the largest average fruit weight for the season of the diploid melons.

Crimson Treat had the largest total number of marketable fruit per acre for the season and the Second highest percent of soluble solids.

The cultivar Tri-x 313 had the largest average fruit weight for the season of the triploid melons. Treasure Chest had the largest number of marketable fruit per acre for the season. The cultivar Tri-x Shadow had the highest percent of soluble Solids of the triploids.

With field trials similar to this, Watermelon crops can fit into the production scheme for Southern Ohio growers. The growing

season and average daily heat units seem adequate to produce high quality melon crop.

Table 1. Yields and Quality comparisons from replicated Diploid Watermelon cultivar trials in southern Ohio: Ohio State University Extension Enterprise Center, Hillsboro, Ohio 1998

Harvest (8/18 and 9/1)

<u>Cultivar</u>	<u>Marketable Ton/Acre</u>	<u>Marketable Fruit/Acre</u>	<u>Average Fruit Wt.</u>	<u>% Soluble Solids</u>
Mardi Gras	25.80	3295	15.85	11.0
RWM 8052-VP	25.44	3522	14.49	9.26
Carnival	21.84	3295	13.51	10.5
Crimson Treat	18.28	5909	6.92	10.6
Summer Flavor 500	13.64	1818	14.29	10.0
Jade Star	12.87	3181	7.92	10.5
LSD	8.6316	1851	2.7579	N/A

Table 2. Yields and Quality comparisons from replicated Triploid Watermelon cultivar trials in southern Ohio: Ohio State University Extension Enterprise Center, Hillsboro, Ohio 1998

Harvest (8/18 and 9/1)

<u>Cultivar</u>	<u>Marketable Ton/Acre</u>	<u>Marketable Fruit/Acre</u>	<u>Average Fruit Wt.</u>	<u>% Soluble Solids</u>
Tri-x 313	20.13	3523	11.72	10.50
Triple Star	18.94	3295	11.52	10.26
Summer Sweet 5544	17.42	3977	9.39	10.13
Treasure Chest	16.56	4318	7.67	9.00
Summer Sweet 5244	15.81	3523	8.90	10.86
RWM 8073-VP	15.69	3409	9.14	10.46
Tri-x Shadow	12.16	2614	9.64	11.20
LSD	11.08	2434.3	2.4739	N/A

Table 3. Seed Sources

<u>Cultivar</u>	<u>Seed Source</u>	<u>Type</u>	<u>Flesh Color</u>
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Mardi Gras	RNK	Diploid	Red
RWM 8052-VP	RNK	Diploid	Red
Carnival	RNK	Diploid	Red
Crimson Treat	RP	Diploid	Red
Summer Flavor 500	AC	Diploid	Red
Jade Star	RP	Diploid	Red
Tri-x 313	AM	Triploid	Red
Triple Star	RP	Triploid	Red
Summer Sweet 5544	AC	Triploid	Red
Treasure Chest	RP	Triploid	Yellow
Summer Sweet 5244	AC	Triploid	Red
RWM 8073-VP	RNK	Triploid	Red
Tri-x Shadow	AM	Triploid	Red