

EVALUATION OF WATERMELON CULTIVARS

for SOUTHERN OHIO, 1998

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This Watermelon cultivar trial compared 15 cultivars using 3 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 4/24/98 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 21, 1998 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 silver reflective on black plastic mulch with trickle irrigation under the mulch prior to planting. Five plants per plot (5' x 15') provided a plant density of approximately 3,046 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 6/21/98; 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 6/29 and 7/23. 1 qt. / acre Thiodan 3 EC on 7/10. 2 lb./ acre BRAVO 720 on 6/29, 7/10 and 8/4.

Irrigation: Trickle irrigated on 7/6, 7/19, 7/27, 8/7, 8/27 and 9/3

Harvests (8): 8/24, 9/1, 9/11, 9/18 and 10/1.

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.

Revere had the largest total number of marketable fruit per acre for the season and the third largest early marketable ton per acre.

Superstar had the second largest total number of marketable fruit per acre and the largest marketable ton of fruit per acre in the early harvest.

With field trials similar to this, Muskmelon crops can fit into the production scheme for southern Ohio growers. The growing season and average daily heat units seem to be adequate to produce a high quality melon crop. The long range goal is to utilize the existing agricultural infrastructure of southern Ohio to introduce these muskmelon cultivars as an alternative crop for southern Ohio producers.

Table 1. Yields and Quality comparisons from replicated Watermelon cultivar trials in southern Ohio:

Ohio State University Extension Enterprise Center, Hillsboro, Ohio 1998

Early Harvest (8/24 and 9/1)

<u>Cultivar</u>	<u>Marketable Ton/Acre</u>	<u>Marketable Fruit/Acre</u>	<u>Average Fruit Wt.</u>
Carnival	25.5	50954	16.5
Fiesta	18.9	37741	12.7
Royal Sweet	18.2	36333	17.7
Mardi Gras	16.8	33639	16.6
RWM 8052	16.5	32954	14.3
Boston	15.3	30639	10.3
Revere	15.2	30370	13.7
SXW 5025	14.6	29287	18.6
Sangria	13.6	27278	14.5
Royal Majesty	13.6	27250	13.4
SXW 5045	12.8	25611	15.1
Treasure Chest	12.7	25380	9.4
Banner	11.5	23065	12.9
Triple Crown	10.3	20509	7.4
Triple Prize	5.0	10037	3.6
LSD	9.1	18307	5.1

Table 2. Yields and Quality comparisons from replicated Watermelon cultivar trials in southern Ohio:

Ohio State University Extension Enterprise Center, Hillsboro, Ohio 1998

Total Season Harvest

<u>Cultivar</u>	<u>Marketable Ton/Acre</u>	<u>Marketable Fruit/Acre</u>	<u>Average Fruit Wt.</u>	<u>% Soluble Solids</u>
Revere	45.6	6111	15	11.4
Fiesta	40.7	5556	13.2	8.4
Mardi Gras	39.7	4444	17.8	10
Royal Sweet	31.4	3704	16.7	11.3
Treasure Chest	28.9	5741	10.2	10.3
Banner	28.9	3889	14.8	11.3
SXW 5025	28.5	3148	17.9	11.5
Carnival	28.1	3333	17.1	9
Sangria	25.1	3333	14.6	10
Triple Prize	24.1	3519	14.9	10

Royal Majesty	24.1	3148	14.9	9.9
Boston	22.2	4074	10.8	10.4
RWM 8052	20.9	2778	14.9	9.5
Triple Crown	15.1	2778	7.3	10.5
SXW 5045	13.8	1852	14.7	10.7
LSD	20.6	2618	4.5	NA

Table 3. Seed Sources

<u>Cultivar</u>	<u>Seed Source</u>	<u>Type</u>	<u>Flesh Color</u>
Revere	SUNSEED	Seedless	Red
Fiesta	RUPP SEED	Seeded	Red
Mardi Gras	ROGERS	Seeded	Red
Royal Sweet	RUPP SEED	Seeded	Red
Treasure Chest	RUPP SEED	Seedless	Yellow
Banner	SUNSEED	Seeded	Red
SXW 5025	SUNSEED	Seeded	Red
Carnival	RUPP SEED	Seeded	Red
Sangria	RUPP SEED	Seeded	Red
Triple Prize	RUPP SEED	Seedless	Red
Royal Majesty	RUPP SEED	Seeded	Red
Boston	SUNSEED	Seedless	Red
RWM 8052	ROGERS	Seeded	Red
Triple Crown	RUPP SEED	Seedless	Red
SXW 5045	SUNSEED	Seeded	Red

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