



Horticulture Program HORT-00-7

EVALUATION OF WATERMELON CULTIVARS FOR SOUTHERN OHIO, 2000

Brad R. Bergesford, Extension Agent, Horticulture
 Thom C. Harker, Research Assistant, Horticulture
 Ohio State University Extension Enterprise Center
 1864 Shyville Road, Piketon, Ohio 45661-9749
 Phone: (740) 289-3727

This Watermelon cultivar trial compared 20 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 4/21/00 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 May 26, 2000 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 pts / Acre Curbit 3EC pre-plant between rows on 5/25/2000; 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 6/21, 6/29 and 7/26 at a rate of 5 fl oz./A; Sevin XLR 1 qt/A 8/10 and 8/17 Bravo Ultrex 2 lb/A on 6/21/, 7/26 and 8/10; Quadras 15.4 oz/A 6/29 and 8/17

Irrigation: Trickle irrigated on 5/30, 6/9, 6/22, 6/29, 7/11, 7/18, 7/28, 8/2, 8/14 and 8/23

Harvests: August 9, 2000, September 7, 2000 and September 14, 2000

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. Carnival was the number one diploid melon, also producing the largest amount of marketable fruit per acre. The cultivar Celebration had the largest average fruit weight for the season of the diploid melons. Crimson Sensation had the highest percent of soluble solids.

The cultivar Millionaire was the number one triploid watermelon also producing the largest amount of marketable fruit per acre. Seed Way 4502 had the largest average fruit weight of the triploids that were on trial. Millennium had the highest percent of soluble solids of the triploids.

The growing season and average daily heat units seem adequate to produce high quality melon crop. Even with the cooler than normal heat units for a typical growing season. With field trials similar to this, Watermelon crops can fit into the production scheme for Southern Ohio growers.

Table 1. Yields and Quality comparisons from replicated Diploid Watermelon cultivar trials in Southern Ohio: Ohio State University Extension Enterprise Center, Hillsboro, OH 2000

Cultivar	MARKETABLE		AVERAGE	% SOLUBLE	SEED
	FRT/A	TON/A	FRT WT.	SOLIDS	SOURCE
Carnival	4130.00	39.41	19.09	8.17	RG
Athens	3587.00	35.92	19.37	10.27	SS
Celebration	2935.00	35.68	24.90	10.67	RG
ACX 5411	2935.00	33.88	24.05	9.73	AC
Crimson Sensation	2500.00	25.29	20.43	11.53	PS
Sangria	2500.00	24.80	17.37	9.50	RG
RWM 8074	2717.00	24.37	17.61	9.20	RG
Jade Star	2935.00	18.87	12.71	11.00	PS
Sugar Baby	1957.00	12.49	13.72	9.83	RUP
LSD	2173.10	21.56	6.32	NA	

Table 2. Yields and Quality comparisons from replicated Triploid Watermelon cultivar trials in

southern Ohio: Ohio State University Extension Enterprise Center, Hillsboro, Ohio 2000

Cultivar	MARKETABLE		AVERAGE	% SOLUBLE	SEED
	FRT/A	TON/A	FRT WT.	SOLIDS	SOURCE
Millionaire	7717.00	53.72	13.35	13.17	HM
Big Charlie	5326.00	46.56	17.41	10.70	DP
Elation	5543.00	42.43	15.85	12.30	DP
Seed Way 4502	5217.00	41.27	18.71	10.53	SW

Enchantment	4239.00	34.18	15.89	11.20	DP
Millennium	5109.00	32.40	12.35	11.80	HM
Summer Flavor 4502	3261.00	32.10	15.61	9.97	AC
Summer Sweet 5544	3804.00	30.61	15.78	10.67	AC
6009	5652.00	26.38	9.40	10.30	HZ
Triple Crown	3152.00	25.16	15.68	10.33	RUP
Liliput	4891.00	23.90	9.65	9.83	HZ
LSD	3165.70	24.50	3.28	NA	