



## Centers at Piketon

"Exploring Economic Opportunities"



### EVALUATION OF EASTERN STYLE MUSKMELONS

for SOUTHERN OHIO, 1998

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This Eastern style muskmelon cultivar trial compared 14 cultivars using 3 replications of each cultivar. Objectives were to evaluate potential muskmelon 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 4/26/98 into 50- cell Pro Trays using a peat-vermiculite soilless mix. Cells were thinned as needed to 1 plant per cell. Plants were field planted on May 22, 1998 using a Water Wheel Planter.

**Spacing:** Rows were 5 feet apart, with plants set onto raised beds at 36" spacing between plants in the row. The beds were covered with silver reflective on black plastic mulch with trickle irrigation under the mulch prior to planting. 5 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. P<sub>2</sub>O<sub>5</sub> and 120 lbs. K<sub>2</sub>O 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 preplant between rows on 5/21 /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 6/7, 6/15, 6/29, 7/23. 1 qt. / acre Thiodan 3 EC on 7/10. 2 lb./ acre BRAVO 720 on 6/15, 6/29, 7/10 and 8/4.

**Irrigation:** Trickle irrigated on 7/6, 7/19, 7/27, 8/7, 8/11, 8/18.

**Harvests (8):** 7/30, 8/4, 8/6, 8/11, 8/14, 8/18, 8/21 and 8/26.

#### **RESULTS:**

There was average fruit set and yield throughout the harvest season. Bacterial Wilt, a disease vectored by the cucumber beetle became increasingly prevalent towards the end of our harvest. Harvest yield and quality attributes were collected and observed.

The cultivar Eclipse had the largest average fruit weight for the season.

SRM 7119 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 Muskmelon cultivar trials in southern Ohio:**

**Ohio State University Extension Enterprise Center, Hillsboro, Ohio 1998**

**Early harvest (7/30 and 8/4)**

<u>Cultivar</u>	<u>Seed Source</u>	<u>Marketable Ton/Acre</u>	<u>Marketable Fruit/Acre</u>	<u>Average Fruit Wt.(lb)</u>
Super Star	RU	8.9	2963	5.73
Eclipse	RU	4.8	1481	6.7
SRM 7119	SS	4.1	1481	5.54
Athena	RU	4.0	1481	3.51
SRM 7118	SS	3.9	1111	6.75
Fanfair	RU	3.7	1111	4.49
SRM 7120	SS	3.1	1296	2.98
Legend	RU	2.8	1111	5.5
Touchdown	RNK	2.2	925	3.33
Quasar	RU	1.9	555	4.56
Cordele	RU	1.2	555	3.01
Magnifisweet	PS	0.6	185	2.21
Early Crisp	PS	0.5	185	1.7
SXM 7206	SS	0.3	185	0.91
<b>LSD</b>		<b>4.2</b>	<b>1405.8</b>	<b>4.1</b>

**Table 2. Total Season Yields and Quality comparisons from replicated Muskmelon cultivar trials in southern Ohio: Ohio State University Extension Enterprise Center, Hillsboro, Ohio 1998**

<u>Cultivar</u>	<u>Marketable Ton/Acre</u>	<u>Marketable Fruit/Acre</u>	<u>Average Fruit Wt.(lb)</u>	<u>%Soluble Solids</u>
SRM 7119	21.9	6481	6.7	8.7
Super Star	18.5	6296	5.8	9.7
SRM 7120	15.9	5185	6.2	8.0
SRM 7118	15.8	5185	6.5	9.6
Athena	15.8	5185	6.1	8.7
Eclipse	13.9	3333	8.2	8.4
Legend	13.4	4815	5.6	5.8
Apollo	12.0	3519	6.9	8.1
Quasar	11.4	3333	6.9	6.6
Magnifisweet	11.3	3889	5.8	10.3
Touchdown	10.5	2963	7.2	9.6
Cordelle	6.5	2778	3.1	6.6
Fanfair	5.8	1852	4.1	10.8
Early Crisp	3.7	1852	3.9	14.5
SXM 7206	0.5	370	0.95	11.4

**LSD**

**8.1**

**2665.1**

**2.6**

**NA**