



## Centers at Piketon

"Exploring Economic Opportunities"



### EVALUATION OF HIGH TUNNEL STRAWBERRY PRODUCTION for SOUTHERN OHIO, 1999

Brad R. Bergesford Extension Agent, Horticulture; Dick Funt Extension Small Fruit Specialist  
Thom Harker Research Assistant, Horticulture; Christie Welch Research Assistant, Horticulture  
Lynn Miller Research Assistant, Horticulture; Wayne Lewis Farm Manager, Piketon Research & Extension Center  
Dee Bapst Summer Assistant; Kristy Moore Summer Assistant; Philip Roberts Summer Assistant  
Andrew Blanford Summer Assistant.

The Ohio State University Piketon Research and Extension Center  
The Ohio State University Extension Enterprise Center  
1864 Shyville Road, Piketon, Ohio 45661-9749  
1 (800) 297-2072 , [bergesford.1@osu.edu](mailto:bergesford.1@osu.edu) , [www.ag.ohio-state.edu/~prec](http://www.ag.ohio-state.edu/~prec)

This high tunnel strawberry cultivar trial has compared 9 cultivars using 3 replications of each cultivar. Objectives are to evaluate potential cultivars of strawberry for their suitability under high tunnel production in a southern Ohio growing season. The plots are located at the Ohio State University Piketon Research & extension Center in Piketon, Ohio. Data was analyzed by SAS statistical software.

#### **METHODS:**

**Planting:** Sweet Charlie, Camerosa and Chandler plots were planted September 3, 1998. Jewel and Northeaster plots were planted on September 24, 1998 and Delmarvel, Earliglow, Allstar and Mohawk plots were planted September 25, 1998. All plots were hand planted. All plants were plug grown plants.

**Spacing:** Rows spacing was approximately five feet apart. Double rows of plants spaced 18 inches between double rows with plants set on plastic mulch covered raised beds. Plants were set at 12 inch spacing between each plant in the row, 14 plants per plot.. The beds have drip tube irrigation under the plastic mulch.

**Soil Type: Doles Silt Loam**

**Fertilizer:** Plants were fertilized with Peters 9-52-10 starter solution soon after planting

**Weed Control: Hand weeded as necessary.**

**Pest Management: Row covers were installed throughout the winter** to reduce deer damage to the plants when the tunnel was opened for ventilation.

#### **RESULTS:**

There was average fruit set and yield throughout the harvest season. Harvest yield and quality attributes were collected and

observed. The cultivar Chandler had the largest total production per acre for the season at 11,431 pounds per acre with an average berry weight of 9.0927 grams. The cultivar Camarosa had the largest average berry weight for the season at 10.9188 grams. With field research and demonstration trials similar to this, high tunnel strawberry crops can fit into the production and marketing scheme for Southern Ohio growers. The growing season and average daily heat units seem adequate to produce high quality high tunnel strawberry crop.

High tunnel strawberry evaluations and field trials will continue at the Ohio State University Piketon Research & Extension Center in 2000. Growers are invited to visit the many fruit and vegetable trials that are being performed for personal observations throughout the season.

**Table 1. Yields and Quality comparisons from replicated High Tunnel Strawberry Production trials in southern Ohio: Ohio State University Piketon Research & Extension Center, Piketon, Ohio 1999**

VARIETY	LBS/ACRE	No. of Fruit per Acre	Ave. Fruit Wt. (g)	Yield/Plant (g)	Largest Fruit's Wt.(g)	No. of Fruit per plant
Chandler	11431	574583	9.0927	298.6	19.505	32.833
Camarosa	10088	422500	10.9188	263.52	23.894	24.143
Northeast	5571	297500	8.6221	145.52	16.403	17.000
Sweet Charlie	5271	275833	8.6934	137.69	13.849	15.762
Jewel	4151	219583	8.6089	108.43	15.259	12.548
Allstar	3392	189167	8.2373	88.62	14.803	10.810
Delmarvel	3041	162500	8.5783	79.43	13.755	9.286
Earliglow	2727	160417	7.773	71.24	11.164	9.167
Mohawk	2150	126667	7.802	56.17	11.657	7.238
<b>LSD</b>	1787	74527	1.5037	46.695	3.0776	4.259

**Table 2. Rainfall amounts and average high and low temperatures for the 1999 season: Ohio State University Extension Piketon Research & Extension Center, Piketon, Ohio 1999**

**1999 Weather Summary @ Piketon,  
Ohio**

	Ave. High Temp	Avg Temp	Normal Ave Temp	Avg Low Temp	Total Precipitation	Normal Precipitation
January	45	34.6	30.8	24.3	4.7	3.1
February	49.1	37.6	33.4	27.3	3.34	2.1
March	50.4	38.7	41.9	26.1	1.85	4.5
April	68.7	56.4	52.6	44.2	2.11	3.2
May	78.6	63.9	61.7	48.4	1.37	4.5
June	85.1	72.5	72.4	59.9	1.15	3.9
July	92.5	79.1	75.9	66.4	3.82	4
August	84.8	71.7	74.1	59.7	5.42	2.7
September	78	62.2	65.1	47.1	0.87	1.9
October	68.5	53.3	54.2	40.4	2.44	1.9
November	60.5	47.3	42.6	35.1	2.22	3
December	46	35.9	36.2	26.1	3.1	2.1
1999	67.1	54.3	53.4	42.1	32.4	37.1

