

## Horticulture Program

# Evaluation of Summer Squash Cultivars 2002

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

This summer squash cultivar trial compared 8 cultivars of yellow squash and 14 cultivars of green zucchini cultivars. There was 3 replications of each cultivar. Objectives were to evaluate potential squash cultivars for their suitability in Southern Ohio growing season. The plots were located at the Ohio State University South Centers research and demonstration plots in Hillsboro, Ohio.

### **METHODS:**

**Planting:** The yellow squash was direct seeded to the field on June 11, 2002. The Green zucchini was direct seeded to the field on June 13, 2002. Admire 2F was added to transplant water at planting

**Spacing:** Rows were 5 feet apart, with plants set onto raised beds at 18" spacing between plants in the row and double rowed on the bed. The beds were covered with black plastic mulch with trickle irrigation under the mulch prior to planting.

**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, approximately 8 oz. per plant) with transplanting water.

**Pesticide Treatments:** No fungicides were applied to this trial. Admire 2F insecticide applied at planting was the only insecticide used in this trial.

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

**Harvests:** Harvest was conducted 14 times; July 22 through September 3, 2002, for a total of 5 weeks.

### **RESULTS:**

Early season yield for yellow squash ranged from 1258 ('Patriot II') to 715 ('Prelude II') half-bushels per acre. Total yield for yellow squash ranged from 2941 ('Patriot II') to 1605 ('Prelude II') half-bushels per acre. Many of the selections seemed to have some resistance to the virus diseases commonly found in southern Ohio, however the 2002 season was a light virus pressure year for southern Ohio. Many of the cultivars on test did show some tolerance to powdery mildew disease.

Early season yield for green zucchini ranged from 862 ('RSQ 0190') to 114 ('Bareket') half-bushels per acre. Total yield for green zucchini ranged from 2545 ('Cashflow') to 1299 ('RSQ 0224') half-bushels per acre. Many of the selections showed resistance to virus disease pressure commonly found in southern Ohio, however 2002 was a light virus pressure year. Many of the cultivars on test did show some tolerance to powdery mildew disease.

**Table 1.** Early Harvest from replicated Yellow Squash Cultivar Evaluation: Ohio State University South Centers, Hillsboro, Ohio 2002

<u>Cultivar</u>	<b>Total Boxes</b>	<b>Small Boxes</b>	<b>Medium Boxes</b>	<b>Large Boxes</b>
	<u>per Acre</u>	<u>per Acre</u>	<u>per Acre</u>	<u>per Acre</u>
Patriot II	1258	317	434	506
Fortune	1221	402	327	446
Enterprise	1137	232	517	386
Liberator III	1061	179	434	446
Sunglo	1022	179	455	386
RSQ 0310 VP	918	243	496	178
Prelude II	715	95	352	267
<b>LSD</b>	<b>500</b>	<b>154</b>	<b>359</b>	<b>390</b>

- Early harvest was based on the first 4 harvest of the season
- Yield in ½ bushel boxes
- Small (<+6") Medium (6"-8") Large (8" +)

**Table 2.** Total Harvest from replicated Yellow Squash Cultivar Evaluation: Ohio State University South Centers, Hillsboro, Ohio 2002

<u>Cultivar</u>	<b>Total Boxes</b>	<b>Small Boxes</b>	<b>Medium Boxes</b>	<b>Large Boxes</b>	<b>Powdery Mildew rating</b>
	<u>per Acre</u>	<u>per Acre</u>	<u>per Acre</u>	<u>per Acre</u>	
Patriot II	2941	1502	724	714	2.66
Enterprise	2893	1545	931	416	2.00
Fortune	2889	1587	766	535	3.66
Liberator III	2350	1164	621	565	2.66
Sunglo	2117	1132	538	446	2.00
RSQ 0310 VP	2064	1142	683	238	1.66
Prelude II	1605	677	600	327	1.66
<b>LSD</b>	<b>942</b>	<b>576</b>	<b>486</b>	<b>522</b>	<b>1.47</b>

- Yield in ½ bushel boxes
- 1-25% leaf showing powdery mildew
- 2-50% leaf showing powdery mildew
- 3-75% leaf showing powdery mildew
- 4-100% leaf showing powdery mildew
- Small (<+6") Medium (6"-8") Large (8" +)

**Table 3.** Early Harvest from replicated Green Zucchini Cultivar Evaluation: Ohio State University South Centers, Hillsboro, Ohio 2002

<u>Cultivar</u>	<b>Total Boxes</b>	<b>Small Boxes</b>	<b>Medium Boxes</b>	<b>Large Boxes</b>
	<u>per Acre</u>	<u>per Acre</u>	<u>per Acre</u>	<u>Per Acre</u>
RSQ 0190 VP	862	169	455	238
Green Eclipse	770	264	476	29
NUN 9523 F1	766	137	331	297
Senator	708	201	269	238
Cashflow	677	306	310	59
Monitor F1	650	158	372	119
RSQ 0227 VP	614	285	269	59
Spineless Beauty	613	129	248	238
RSQ 0202 VP	595	264	331	0
Robuster	572	243	269	59
RSQ 0181 VP	537	137	310	89
Dividend ZS 19 VP	447	137	310	29
RSQ 0224 VP	438	169	269	0
Bareket	114	63	20	29
<b>LSD</b>	<b>434</b>	<b>132</b>	<b>255</b>	<b>215</b>

- Early harvest was based on the first 4 harvest of the season
- Yield in ½ bushel boxes
- Small (<+6") Medium (6"-8") Large (8" +)

**Table 4.** Total Harvest from replicated Green Zucchini Cultivar Evaluation: Ohio State University South Centers, Hillsboro, Ohio 2002

<u>Cultivar</u>	<u>Total Boxes per Acre</u>	<u>Small Boxes per Acre</u>	<u>Medium Boxes per Acre</u>	<u>Large Boxes Per Acre</u>	<u>Powdery Mildew rating</u>
Cashflow	2545	1576	641	327	3.33
Green Eclipse	2212	1164	869	178	2.66
RSQ 0190 VP	2189	941	890	357	3.33
Monitor F1	2099	1079	662	357	3.33
RSQ 0227 VP	2091	1142	621	327	3.00
NUN 9523 F1	1910	1026	496	386	3.33
Senator	1897	793	538	565	2.66
RSQ 0202 VP	1876	1195	621	59	2.66
Robuster	1874	1238	517	119	2.66
Spineless Beauty	1844	910	517	416	3.33
Dividend ZS 19 VP	1550	952	538	59	2.66
Bareket	1464	761	434	267	3.00
RSQ 0181 VP	1394	645	600	148	3.66
RSQ 0224 VP	1299	624	496	178	2.00
<b>LSD</b>	<b>966</b>	<b>551</b>	<b>334</b>	<b>388</b>	<b>.93</b>

- Yield in ½ bushel boxes
- 1-25% leaf showing powdery mildew
- 2-50% leaf showing powdery mildew
- 3-75% leaf showing powdery mildew
- 4-100% leaf showing powdery mildew
- Small (<+6") Medium (6"-8") Large (8" +)