



Bell Pepper Cultivar Performance Trial Grown in Southern Ohio 2011



**Brad R. Bergesford, Horticulture Specialist and Extension Educator
Wayne Lewis, Thom Harker, Lynn Miller, Al Welch and Emily Weak**
The Ohio State University South Centers
1864 Shyville Road, Piketon, Ohio 45661

OBJECTIVES:

To screen new fresh market bell pepper variety releases (2010-2011) for their production performance under Southern Ohio growing conditions and to determine the new releases showing yield potential for the southern Ohio area.

MATERIALS and METHODS:

This trial evaluated 10 bell pepper cultivars for their production suitability, performance and quality attributes under southern Ohio growing conditions. Cultivar selections were new releases along with some industry standard varieties. Input was received from seed companies, growers, and industry personnel regarding variety selection and standard comparison. The observation trial was located in southern Ohio, at The Ohio State University South Centers field research trials in Piketon, Ohio. Seeds were hand planted April 11th into 98 cell Pro Trays filled with soilless mix in the greenhouse. Plants were transplanted onto 10 inch tall raised beds covered with black plastic in twin rows spaced 18 inches apart on June 2nd using a waterwheel transplanter. Trickle irrigation was installed under the plastic mulch. Bed spacing was 6 foot apart on center. 100 pounds of N, P₂O₅ and K₂O per acre were applied before forming beds and laying plastic mulch. A standard commercial fungicide and insecticide program followed recommendations from the Ohio Vegetable Production Guide, OSU Bulletin #672. Weeds were controlled with cultivation and hand hoeing.

RESULTS and DISCUSSION:

This trial was planted later than usual due to one of the wettest springs on record. Overall plant and fruit quality was good despite the less than optimal growing conditions experienced this season. Fruit were harvested three times August 18, September 13 and October 10. In this trial, total marketable bushels per acre ranged from 1892 (Islamorada) to 723 (Milena). The cultivar Vanguard had the largest amount of marketable large and medium bushels per acre at 710 large and 769 medium. The cultivar Vanguard had the largest average fruit weight of .48 lb. Table 1 shows yield data and varieties are listed in descending order of U.S. No. 1 yield. We wish to thank the seed companies for their in-kind contributions to conduct this field research.

Table 1: Fruit yields and average fruit size responses for new bell pepper cultivars grown in southern Ohio (Piketon), 2011.

Cultivar	Seed Source	Total Bushels per Acre	Small Bushels per Acre	Medium Bushels per Acre	Large Bushels per Acre	Average Fruit Weight (lbs.)
Islamorada	SW	1892	733	754	404	.44
Vanguard	HM	1829	349	769	710	.48
Mecate	HM	1604	510	650	444	.41
Delirio	RU	1266	389	588	288	.40
PS 2994 819	SW	1179	352	461	365	.41
Sandpiper	HM	1175	899	275	0	.28
Archimedes	RU	1161	338	442	380	.41
Karisma	HM	1093	501	502	89	.34
Catriona	SW	928	498	344	85	.32
Milena	SW	723	554	169	0	.27