

2005 Green Pepper Cultivar Evaluation

Bob Precheur, Rick Callendar, and Herminio Perez
Dept. of Horticulture and Crop Science, OSU Columbus, Manager and Staff,
Muck Crops Branch. Celeryville, OH

In Cooperation with Wiers Farms Inc., Willard, OH

Summary of Results:

Nine varieties were transplanted on June 1 at a grower's location in Celeryville, OH. The experiment was conducted as a randomized complete block design with 4 replications. Plots were double rows, 25 feet long. Eight plants from the middle were harvested to determine yield and quality.

The first harvest was 4 Aug 2005 and the second harvest on 27 Aug 2005. The third harvest was missed but a small fourth harvest was made on 4 Oct. 2005

The top performing varieties (boxes per acre of extra large + large fruit) in the first harvest were: 9928002-A, Paladin, Aristotle, Alliance, and PS 9915776 (see Table 1.). The yield of variety 9928002-A was significantly greater than all other varieties but it can be considered a half long type with an average fruit length between 4.5 to 6 inches long. This larger size contributed to a significant increase in yield. The next four varieties range from 176 to 160 boxes per acre, a difference of only 16 boxes. The remaining 4 varieties are considerably lower in yield by more than 60 boxes per acre than the top five varieties.

The top 4 varieties after three harvests of extra large and large fruit were: 9928002-A, Alliance, Aristotle, and Paladin (see table 2). 9928002-A is again at the top of the list because of its larger fruit size. Old standards Aristotle and Paladin remain consistent and reliable but Alliance moves into second place in total yield of the large size categories. It was in fourth place in the first harvest. Alliance is worthy of a trial to see if it is reliable over different years.

Table 3 shows the percentage of marketable fruit in the large size categories (% marketable large) for the first harvest and all harvests. Percent marketable represents every size category that can be sold from extra large down to the select category. 9928002-A, Aristotle, PS 9915776, and Paladin, were the only varieties with 60% or more of their fruit in the large size category for the first harvest. For total harvest, only 9928002-A (59%) and Aristotle (52%) had 50% or more of their fruit harvested in the large size categories. This is much lower than in previous years.

Table 1. Yield of extra large¹, large and extra large plus large fruit, (First Harvest)

Early (First Harvest)	Extra Large	Large	Extra Large + Large	
Cultivar	Boxes/A	Boxes/A	Cultivar	Boxes/A
9928002-A	134	93	9928002-A	228
Paladin	83	93	Paladin	176
Aristotle	79	97	Aristotle	176
Alliance	71	100	Alliance	171
PS 9915776	39	120	PS 9915776	160
Mahi	39	57	Mahi	96
Legionnaire	16	67	Crusader	85
Telestar	11	67	Legionnaire	82
Crusader	8	77	Telestar	79
LSD 0.05	48	49		74

1. The extra large category includes Jumbo and extra large fruit sizes.

Table 2. Yield of extra large¹, large and extra large plus large fruit, (Total Harvest)

Early (First Harvest)	Extra Large	Large		Extra Large + Large
Cultivar	Boxes/A	Boxes/A	Cultivar	Boxes/A
9928002-A	257	221	9928002-A	478
Alliance	194	221	Alliance	415
Mahi	154	150	Aristotle	360
Aristotle	142	217	Paladin	325
Paladin	134	190	Crusader	312
Crusader	91	221	Mahi	305
PS 9915776	87	217	PS 9915776	304
Legionnaire	67	167	Legionnaire	234
Telestar	47	137	Telestar	184
LSD 0.05	101	91		146

1. The extra large category includes Jumbo and extra large fruit sizes.

Table 3. Percent Marketable Yield (Extra Large + Large + Medium + Small + Select)

First Harvest			Total (3 Harvests)		
Cultivar	% Marketable Large ¹	% Marketable ²	Cultivar	% Marketable Large ¹	% Marketable ²
9928002-A	77	89	9928002-A	59	82
Aristotle	75	95	Aristotle	52	84
PS 9915776	64	95	Mahi	48	83
Paladin	60	97	PS 9915776	48	82
Alliance	59	90	Alliance	45	81
Mahi	58	91	Crusader	39	84
Legionnaire	54	92	Paladin	38	81
Telestar	45	91	Legionnaire	38	85
Crusader	38	96	Telestar	34	88
LSD 0.05	23	10		17	8

1. % **Marketable Large** = the number of Extra Large + Large fruit divided by the number of Extra Large + Large + Medium + Small + Select + Cull fruit times 100.

2. % **Marketable** = the number of Extra Large + Large + Medium + Small fruit divided by the number of Extra Large + Large + Medium + Small + Select + Cull fruit times 100.

The following are the nine green pepper varieties in the trial. Use the 6 inch ruler on the left side for a size reference

