

PEPPER CULTIVAR TRIALS - 1980

Vegetable Crops Branch
Fremont, Ohio

J.M. Pisarczyk
C.C. Willer

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Department of Horticulture
Ohio Agricultural Research and Development Center
U.S. 250 and Ohio 83 South
Wooster, Ohio

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Twenty pepper cultivars were evaluated at the Vegetable Crops Branch at Fremont in 1980. Nineteen were bell peppers and one was an elongated, yellow sweet pepper.

Procedure

Seeds were planted in wooden flats on April 10 in greenhouses at OARDC, Wooster. Transplants were set in the field on June 11. Previously 600 lbs. of 15-15-15 fertilizer had been broadcast in the field. Transplants were sidedressed with 125 lbs. of 6-24-12 as a starter fertilizer. Plants were sidedressed with Furadan on June 23 and July 21; additional insect control measures included Sevin, Guthion, and Thiodan. Diathane M-45 and Bravo were used for disease prevention.

Individual plants were spaced 18 inches apart in rows spaced 3 feet apart. Plots were single rows 30 feet long. The main trial had 12 varieties replicated four times, and the observation trial had 8 varieties replicated twice.

Fruits were harvested on August 6 and 13, and September 4 and 16. Fruits were divided into U.S. No. 1 and culls, counted, and weighed. Ten fruits were selected at random from the first replicate of each variety, and fruit characteristics were evaluated. Wall thickness was measured with a micrometer.

Seed was donated by the following sources: Joseph Harris, Co., Inc.--Keystone Resistant Giant, Hybelle, Lady Bell, Midway, Pennbell, Staddon's Select; Stokes Seed, Inc. -- Bell Boy, Super Set; W. Atlee Burpee Co. -- Tasty, PE 70; Petoseed Co., Inc. -- PSR 20876, PSR 21476, PSR 21376, Gypsy, Mercury, Titan, Big Bertha; Ball Seed Co. -- Better Belle; Asgrow Seed Co. -- Pip.

Results

At first harvest in the main trial, Lady Bell, Bell Boy, and Super Set were earliest as measured by total fruit weight, with Better Belle next in maturity. In the observation trial Gypsy was earliest.

The data presented in Table 1 are totals for four harvests. Lady Bell, Super Set, Bell Boy, Hybelle, and Better Belle are hybrid peppers that had excellent yields in this trial. Titan and Mercury yielded less than the standard variety, Keystone Resistant Giant.

The data presented in Table 2 are totals for four harvests. Gypsy and PSR-21376 are hybrid peppers and had excellent yields in this trial. Gypsy is a long-fruited, sweet pepper that is light yellow in color and turns to red at maturity.

1) Assistant Professor, Horticulture Dept., OARDC, Wooster, and Manager, Vegetable Crops Branch, 1165 C.R. 43, Fremont, OH 43420.

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TABLE 1. U.S. No. 1 yield and fruit characteristics. Main Trial.

Entry	Yield			Fruit				Fruit Characteristics				
	Tons/ A	No. (1000)	% US #1	#/ plant	Wt. (lb)	Lgth. (in)	Diam. (in)	Lgth. Dia.	Tip ¹ shape	lobes ²	Wall thickness (mm)	% BER
Lady Bell	17.1	117	91	13.8	.29	3.9	2.8	1.39	2.5	2.6	5.2	0
Super Set	15.7	122	90	14.9	.26	3.9	2.6	1.50	1.8	2.8	4.7	0.2
Bell Boy	14.7	105	91	12.6	.28	3.1	3.0	1.03	1.5	3.6	5.0	0.3
Hybelle	14.3	90	91	10.8	.32	3.4	2.8	1.21	1.0	3.4	5.0	0.2
Staddons Select	12.7	86	91	10.1	.29	3.2	2.8	1.14	1.5	4.0	4.5	1.4
Better Belle	12.5	86	89	10.6	.29	3.5	2.8	1.25	2.0	3.6	6.0	0.4
Pennbell	11.7	84	88	10.5	.28	3.2	2.8	1.14	1.5	3.6	4.6	0.4
Midway	10.7	65	87	8.2	.33	3.5	3.0	1.17	1.0	3.6	5.9	0.5
Pip	9.4	57	89	7.2	.33	3.6	3.0	1.20	2.0	3.0	5.5	0.2
Keystone Res't Giant	8.3	50	86	6.4	.34	3.4	3.2	1.06	2.0	3.4	5.8	0.8
Mercury	8.0	51	89	6.3	.31	3.3	3.3	1.00	1.0	3.4	6.0	0.4
Titan	6.8	48	89	5.9	.28	3.3	3.2	1.03	2.0	3.4	4.9	0.2

1) Tip shape - 1 = blocky; 3 = pointed

2) Average of 5 fruits.

TABLE 2. U.S. No. 1 yield and fruit characteristics. Observation Trial.

Entry	Yield			Fruit				Fruit Characteristics				
	Tons/ A	No. (1000)	% US #1	#/ plant	Wt. (lb)	Lgth. (in)	Diam. (in)	Lgth. Dia.	Tip ¹ shape	lobes ²	Wall thickness (mm)	% BER
Gypsy	16.8	235	92	27.4	.15	4.5	2.1	2.14	2.5	3.2	4.2	0.0
PSR-21376	15.8	88	91	10.5	.36	4.2	3.3	1.27	1.5	3.4	5.3	0.0
Tasty	12.6	86	87	11.3	.30	3.5	2.8	1.25	2.0	2.8	5.4	0.7
PSR-20876	10.8	72	82	9.7	.30	3.5	3.1	1.13	1.8	3.2	4.5	0.0
PSR-21476	10.1	53	92	8.4	.38	3.9	3.1	1.26	1.75	3.6	5.3	0.0
PE 70	10.0	74	90	8.9	.27	3.4	2.7	1.26	2.0	3.6	4.9	0.0
937	9.7	103	87	12.8	.19	3.4	2.5	1.36	3.0	2.4	4.7	0.0
Big Bertha	9.6	54	84	7.0	.35	5.2	2.7	1.93	2.5	2.6	4.3	0.0

1) Tip shape - 1 = blocky; 3 = pointed.

2) Average of 5 fruits.

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