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PEPPER CULTIVAR TRIALS - 1981

Vegetable Crops Branch
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FREMONT PEPPER CULTIVAR TRIALS - 1981

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Twenty pepper cultivars were evaluated at the Vegetable Crops Branch at Fremont in 1981. Eighteen were bell peppers, one was an elongated, yellow sweet pepper (Gypsy), and one was an elongated green, mild pepper (YIS).

Procedure

Seeds were planted in wooden flats on April 10 in greenhouses at OARDC, Wooster. Transplants were set in the field on June 5. 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 and sidedressed with 30 lbs. of N on July 24. Plants were sidedressed with Furadan on June 21 and July 8; additional insect control measures included Sevin, Guthion, Orthene, and Thodan. Dithane M-45 and Bravo were used for disease prevention.

Individual plants were spaced 14 inches apart in rows spaced 3 feet apart. Plots were single rows 30 feet long. The main trial had 13 varieties replicated four times, and the observation trial had 7 varieties replicated twice.

Fruits were harvested on July 24 and 29, August 4, 20, and 27, September 11 and October 1. 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 Sources:

Seed was donated by the following sources:

Joseph Harris Co., Inc. - Keystone Resistant Giant, Hybelle, Lady Bell, Penbell, Staddon's Select, YIS

Stokes Seed, Inc. - Bell Boy, Super Set, Stokes Early Hybrid, Lincoln Bell, Yellow Bell

W. Atlee Burpee Co. - Tasty

Petoseed Co., Inc. - Gypsy

Ball Seed Co. - Better Belle

Leatherman Seed Co. - Super Bell, Early Bell

Goldsmith Seeds - Early Prolific, Market Master, Valley Giant

Keystone Seed Co. - Hybrid 6700

Results

Heavy rains within a week after planting produced stunted plants in part of the plot. Plants recovered later in the season.

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At early harvests in the main plot, Gypsy, Super Set, and Better Belle were earliest as measured by number of fruit. In the observation trial, Yellow Bell and YIS were earliest.

The data presented in Table 1 are totals for seven harvests. Lady Bell, Gypsy, Market Master, and Bell Boy had the highest yields in this trial.

The data presented in Table 2 are totals for seven harvests. Early Bell, YIS, and Stokes Early Hybrid were the highest yielding varieties in this trial. Yellow Bell is a very small bell pepper. It is yellow color as it develops and will turn red at maturity.

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Table 1. U.S. No. 1 yield and fruit characteristics of varieties. Fremont Pepper Variety Trial - 1981

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)	Breaks ³ force (lb)	% BER
Lady Bell	14.1	109	83	11.3	.26	3.7	2.9	1.28	1.5	3.3	5.7	11.3	6.7
Gypsy	13.7	203	89	21.0	.13	4.1	1.8	2.28	3	2.3	4.5	9.7	2.3
Market Master	12.8	99	84	10.2	.26	3.2	2.7	1.19	2	2.9	4.8	11.2	5.4
Bell Boy	12.8	100	86	10.4	.25	3.6	2.7	1.33	1.5	3.0	6.0	12.3	5.3
Hybelle	12.3	95	83	9.8	.26	3.9	3.0	1.32	2	2.9	5.7	10.7	8.2
Staddon's Select	12.1	90	84	9.2	.27	3.2	2.9	1.10	1.5	3.2	6.0	11.3	4.6
Pennbell	12.1	91	86	9.4	.27	3.9	2.9	1.34	2	2.8	5.8	13.3	3.6
Tasty	12.1	96	86	9.9	.25	3.6	2.7	1.33	2	2.6	5.0	9.7	2.4
Better Belle	11.4	90	80	9.3	.25	3.1	2.7	1.15	1.5	3.4	5.5	12.0	3.5
Super Set	11.4	102	81	10.5	.22	3.9	2.8	1.39	2.5	2.6	4.8	9.0	3.6
Valley Giant	10.7	76	73	7.9	.28	3.6	3.1	1.16	2	3.4	6.0	13.3	8.6
Keystone Res't Giant	10.0	69	81	7.1	.29	3.7	2.9	1.28	2	2.7	5.8	13.3	4.8
Early Prolific	8.2	85	80	8.8	.19	3.4	2.6	1.31	2	3.2	4.8	9.3	5.9

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

2) Average of 5 fruits

3) Average break force of three fruits

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Table 2. U.S. No. 1 yield and fruit characteristics. Observation Trial - 1981

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)	Breaks ³ force (lb)	% BER
Early Bell	11.5	98	78	10.2	.23	3.8	3.0	1.27	1.5	3.1	5.1	11.3	7.2
YIS	9.8	144	83	14.9	.14	6.1	1.8	3.39	3	1.0	4.7	11.0	4.2
Stokes Early Hybrid	9.4	100	77	10.3	.19	3.3	2.5	1.32	2.5	2.5	4.5	10.3	10.3
Hybrid 6700	8.6	71	79	7.3	.24	3.5	2.6	1.35	1.5	3.2	5.5	11.7	2.3
Super Bell	8.4	58	85	6.0	.29	4.6	2.7	1.70	2.5	3.2	4.3	9.3	3.3
Lincoln Bell	7.1	59	65	6.1	.24	3.7	2.8	1.32	2	2.6	5.8	11.3	17.0
Yellow Bell	5.8	95	79	9.9	.12	3.3	1.9	1.74	2	2.9	5.7	11.7	3.1

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

2) Average of 5 fruits

3) Average break force of three fruits

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