

**1997 Seedless Watermelon Variety Trial**  
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**Objective:** To evaluate seedless watermelon varieties under Delaware growing conditions. Parameters to be evaluated include: yield quality and maturity.

**Location:** Phillips Farms in Laurel, Delaware

**Cultural Practices:**

**Planting Date:** Greenhouse - April 23, 1997  
Field - May 22, 1997

**Fertilizer:** 2 tons of poultry manure applied in January, 1997.  
800 lbs of 12-6-12 applied just prior to laying plastic mulch

**Herbicide:** Command ½ pt/A preemergence  
Sinbar - 3 oz/A preemergence

**Fungicide:** Five applications of Bravo Ultrex at 2 lb/A for control of foliar diseases on a 7-10 day schedule during the growing season.

**Insecticide:** One application of Lannate at 0.5 lb/A for melon aphids on June 18, 1997.

**Miticide:** One application of dimethoate at 1 pt/A for spider mites

**Pollenizer Variety:** Large Seeded Varieties of the 1997 Observational Trial.

**Plot Design:** One row plots, replicated three times using a randomized complete block design on black plastic mulch with trickle irrigation. Seven transplants per plot using an 8' x 3' spacing.

**Harvest:** The seedless watermelons were harvested as they would be harvested commercially on July 30, 1997, August 5, 1997 and August 14, 1997. Each watermelon was weighed individually. Soluble solids were determined using a hand-held refractometer on three fruit.

**Growing Conditions:** The growing season started out cool. The main growing season was hot and dry. Disease pressure was light. Melon aphids were a problem early in the season, with very heavy spider mite problems during the rest of the growing season. Ozone was also a problem for sensitive varieties, accentuated by the very hot dry conditions. See Appendix A for weather data for the 1997 growing season.

**Results:** Yield information can be found on Table 1. Total yield, average melon weight per variety, average soluble solids and the percentage of fruit that range from <10 lbs., 10-15 lbs., 15-20 lbs., and > 20 lbs. is also recorded. Yields for 1997 ranged from 70,448 lbs per acre (HMX 7928) to 18, 519 lbs per acre (Millionaire). Average weight per melon ranged from 19.1 lbs. (W 4016) to 12.3 lbs. (Treasure Chest). Yields were lower than normal this year due to the heavy mite pressure experienced this growing season. Based on this trial and previous trials, the following varieties have potential for commercial production on Delmarva: 'Crimson Trio', 'Millionaire', 'Summer Sweet 5244', 'Scarlet Trio', 'Tri-X-313', and 'Genesis'. 'HMX 7928' is recommended on a trial basis based on two years of trialing in Delaware. This variety is very dark green, similar to 'Sugar Baby'.

**Table 1. University of Delaware Seedless Watermelon Variety Trial Results**

Variety	Trt	Melons/ plot	Melons/ Acre	Total Wt./Plot	Harvest Wt./A	% < 10 lbs	% 10-15 lbs	% 15-20 lbs	% > 20 lbs.	Avg. S.S.	Avg. Wt./ Melon	Source
HMX 7928	13	18.5	4792	272.0	70448	0	53	43	4	13.3	14.8	Harris Moran
Tri-X-Shadow	5	13.5	3497	225.5	58405	3	18	67	12	11.9	16.8	American Sunmelon
Triple Crown	14	13.5	3497	221.5	57369	0	31	57	12	11.1	16.5	Seedway
Triple Prize	17	12.5	3238	213.0	55167	0	37	49	14	11.4	16.3	Seedway
W 4016 <sup>b</sup>	16	10.5	2720	194.0	50246	0	10	55	35	11.7	19.1	Sunseeds
S.S. 5244	10	11.5	2979	183.0	47397	14	21	65	0	12.0	15.1	Abbott & Cobb
Crimson Trio	9	11.0	2849	172.5	44678	0	26	74	0	10.7	15.7	Rogers
Genesis	15	12.5	3238	169.5	43901	20	49	31	0	11.3	13.3	Shamrock
Tri-X-626	12	12.5	3238	161.5	41829	23	57	20	0	10.7	12.9	Siegers
Scarlet Trio	2	9.5	2461	151.0	39109	20	20	48	12	10.8	15.1	Rogers
W3053	4	10.0	2590	151.0	39109	0	54	46	0	11.7	15.2	Sunseeds
Tri-X-5092	18	10.5	2720	149.0	38591	10	48	38	4	11.3	14.0	American Sunmelon
WM 210	6	9.5	2461	142.5	36908	0	42	58	0	12.0	15.0	DeRuiter
Tri-X-313	1	9.0	2331	133.5	34577	12	57	31	0	11.0	14.7	American Sunmelon
Treasure Chest <sup>a</sup>	3	10.0	2590	121.5	31469	19	74	7	0	11.0	12.3	Seedway
Tri-X 464	11	7.0	1813	112.0	29008	0	41	52	7	12.1	15.9	American Sunmelon
SXW 5001 <sup>b</sup>	7	5.5	1425	98.0	25382	0	14	66	20	10.4	18.1	Sunseeds
Millionaire	8	4.0	1036	71.5	18519	0	0	75	25	11.6	17.9	Harris Moran
LSD .05		8.8	2292	153.3	39712	18	28	28	19	1.3	3.3	

<sup>a</sup> - yellow flesh; <sup>b</sup> - resembles large seeded types, elongated, blocky in shape

**Table 2. Descriptions of Seedless Watermelon Entries for 1997 and Seed Source.**

Variety	Description	Source
Crimson Trio	Oblong, wide, indistinct, dark green stripes on light-green background, resembles 'Crimson Sweet' markings, red flesh. Similar to 'Tri-X-313'.	Rogers
Genesis	Round/Oval, indistinct, wide dark green stripes on light green background, resembles 'Crimson Sweet' in appearance, red flesh, nice deep red interior color. Similar to 'Tri-X-313'.	Shamrock
HMX 7928	Oblong, very dark green color, no stripes, resembles 'Sugar Baby' in appearance, red flesh.	Harris Moran
Millionaire	oblong, wide, indistinct dark green stripes on light green background, resembles 'Crimson Sweet' markings, red flesh. Similar to 'Tri-X-313'.	Harris Moran
Scarlet Trio	Oblong, narrow distinct, dark green stripes on a light green background, red flesh. Similar to 'Queen of Hearts'.	Rogers
Summer Sweet 5244	Oblong, wide, indistinct dark green stripes on a light green background, red flesh, resembles 'Crimson Sweet' in appearance. Similar to 'Tri-X-313'.	Abbott& Cobb
SXW 5001	Elongated, blocky, indistinct light-green stripes on dark green background, red flesh, 'Allsweet' type.	Sunseeds
Treasure Chest	Round, light green background with dark green, indistinct stripe, resembles 'Crimson Sweet' in appearance, yellow flesh.	Seedway
Triple Crown	Round/oblong, light green background with dark green indistinct, wide stripes, resembles 'Crimson Sweet' in appearance, red flesh.	Seedway
Triple Prize	Oblong, wide dark green stripes on light green background, resembles 'Crimson Sweet' in appearance, red flesh. Similar to 'Tri-X-313'.	Seedway
Tri-X-Shadow	Oblong, medium-green background, fine dark green stripes, red interior color, has a smoky appearance.	American Sunmelon
Tri-X-313	Oblong, wide, indistinct, dark-green stripes on light green background, red flesh. Similar to "Crimson Sweet' in appearance.	American Sunmelon

Variety	Description	Source
Tri-X-464	Oblong, wide, indistinct, dark-green stripes on light green background, red flesh. Similar to 'Tri-X-313'.	American Sunmelon
Tri-X-626	Oblong, medium-dark green background, no stripes, red flesh.	American Sunmelon
Tri-X-5092	Round, medium green background with medium to dark green thin distinct stripes, red flesh. Similar to 'Queen of Hearts' in markings, but background is a darker green.	American Sunmelon
WF 210	Round, medium green background with dark green, indistinct, wide stripes, red flesh, resembles 'Crimson Sweet' in markings, but a slightly darker green background. Similar to 'Laurel'.	DeRuiter
W 3053	Round, medium-green background with dark green, wide, indistinct stripes, red flesh. Similar to 'Laurel'	Sunseeds
W4016	Elongated, blocky. Wide, indistinct dark green stripes with alternating narrow, light green stripes, red flesh. 'Allsweet Type'.	Sunseeds