

1996

DELAWARE

# WATERMELON



VARIETY

TRIAL

RESULTS

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**1996 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:** Field 21A , Research & Education Center

**Cultural Practices:**

**Planting Date:** Greenhouse - May 7, 1996  
Field - June 7, 1996

**Fertilizer:** 1500 lbs. of 10-10-10

**Herbicide:** Sinbar at 2 oz/A

**Fungicide:** Bravo 720 at 2 pts./A  
Application began when the vines began to run and continued through harvest.

**Pollinator Variety:** Royal Majesty

**Plot Design:** One row plots, replicated 3 times using a randomized complete block design on black plastic mulch with trickle irrigation. Seven transplants per plot using a 6' x 4' spacing.

**Harvest:** The seedless watermelons were harvested as they would be harvested commercially on August 12, August 21, August 27 and September 3, 1996. Each watermelon was counted and individually weighed. Soluble solids were determined using a hand-held refractometer on three fruit from each entry at each harvest, and the incidence of hollowheart were noted for these fruit.

**Weather:** Temperatures during the growing season were cooler than normal and rainfall was more than normal, providing less than optimal watermelon growing conditions. See Table 2 for weather data for the 1996 growing season.

## Results:

Seveteen varieties of seedless watermelons were evaluated in 1996 (see Table 1). Percent germination varied from 32 to 97%. Total yields for the trial ranged from 32,791 lbs. to 71,479 lbs. per acre. Average fruit weight varied from 11.6 lbs. to 15.5 lbs. Entries were examined for hollowheart at each harvest. Hollowheart was found in sixteen of the seventeen varieties, with percentages ranging from 0% to 61%. Field conditions were extremely wet. Rainfall was well above average for the growing period. Disease pressure for the trial, like commercial fields, was high. The plots were sprayed regularly, and held up well considering conditions.

Table 1. Total yields, average fruit weights, soluble solids, incidence of hollow heart and fruit categorized by size for seedless watermelons planted in a replicated trial at the University of Delaware Research & Education Center, Georgetown, Delaware, 1996.

Entry	% Germ.	Per Acre		Per Acre			% Melons from Total Harvest				Company
		Total # Melons *	Total Weight (lbs.) *	Avg. Fruit Wt. (lbs.)	Soluble Solids (%)	Hollow Heart (%)	< 10 lbs.	10-15 lbs.	15-20 lbs.	>20 lbs.	
Millionaire	89.4	4517 a	71,479 a	15.3 a	9.7 c	21.7 b-e	6.7 a-c	47.3 a-c	29.0 a-c	17.0 a	Harris Moran
HMX 7928	63.1	4517 a	62,896 ab	14.0 a-c	11.0 a-c	23.3 a-e	16.0 a-c	46.0 bc	32.0 a-c	6.0 a-c	Harris Moran
Scarlet Trio	76.3	3630 ab	55,579 ab	15.6 a	11.0 ab	61.0 a	3.3 c	35.3 c	50.0 a	11.3 a-c	Rogers
Tri-X-Shadow	97.3	3549 ab	50,925 ab	14.3 ab	10.7 a-c	11.3 c-e	6.7 a-c	53.0 a-c	40.3 ab	0.0 c	American Sunmelon
Rwm 8008	89.4	3711 ab	50,885 ab	13.6 a-c	10.8 a-c	0.0 e	18.8 a-c	52.2 a-c	27.3 a-c	1.7 bc	Rogers
HMX 4934	86.8	3227 ab	49,755 ab	15.5 a	10.8 a-c	6.7 de	9.0 a-c	39.7 bc	37.0 a-c	14.3 ab	Harris Moran
SSCS 32	52.6	3227 ab	48,295 ab	14.8 a	11.4 a	15.0 c-e	4.0 bc	46.3 bc	47.7 ab	2.0 bc	Siegers
SSCS 27	63.1	3227 ab	48,134 ab	14.8 a	10.5 a-c	29.0 a-e	11.0 a-c	48.7 a-c	29.0 a-c	11.3 a-c	Siegers
Tri-X-313	81.5	3469 ab	47,351 ab	13.6 a-c	10.8 a-c	39.0 a-d	12.7 a-c	50.0 a-c	35.0 a-c	2.3 bc	American Sunmelon
Merrilee III	78.9	3307 ab	46,278 ab	13.2 a-c	10.4 a-c	33.3 a-e	22.0 a-c	44.7 bc	28.0 a-c	5.3 a-c	Pioneer
Crimson Trio	68.4	2501 ab	37,526 b	13.8 a-c	10.4 a-c	6.7 de	3.0 c	61.0 a-c	31.3 a-c	4.7 a-c	Rogers
Laurel	34.2	2501 ab	35,824 b	14.6 ab	9.9 bc	11.0 c-e	11.7 a-c	30.7 c	49.3 ab	8.3 a-c	Siegers
Summer Sweet Brand #5244	52.6	2581 ab	35,574 b	13.7 a-c	10.5 a-c	46.7 a-c	11.7 a-c	59.8 a-c	26.2 a-c	2.3 bc	Abbott & Cobb
HMX 1933	65.7	2985 ab	34,630 b	11.6 c	11.3 a	58.3 ab	16.3 a-c	79.3 a	4.3 c	0.0 c	Harris Moran
Summer Sweet Brand #5544	94.7	2420 b	33,356 b	13.7 a-c	11.6 a	33.3 a-e	5.0 bc	68.5 ab	23.8 a-c	2.7 bc	Abbott & Cobb
Crimson Jewel	86.8	2743 ab	33,227 b	12.1 bc	11.6 a	47.3 a-c	27.3 a	56.3 a-c	16.3 a-c	0.0 c	Sakata
Genesis	71.0	2581 ab	32,791 b	12.1 bc	10.6 a-c	11.0 c-e	25.7 ab	55.3 a-c	15.7 bc	3.3 bc	Shamrock
LSD 0.05		2064	33,794	2.5	1.3	37.9	21.9	32.4	34.1	13.6	

\* Reminder: Yields will be reduced with inclusion of pollinator rows.

Table 2. Temperature and rainfall at the University of Delaware Research & Education Center, Georgetown, Delaware from June through September 1996 and 20-year monthly averages.

	Average Daily Temperatures (°F)				Rainfall (inches)	
	1996		20-yr. Average			
Month	High	Low	High	Low	1996*	20-yr. Avg.
June	83	63	82	60	5.73	3.09
July	83	64	87	66	8.32	3.58
August	84	62	85	64	4.73	5.22
September	78	58	80	57	7.72	3.49

\* Rainfall during this time period was 11.12 inches above normal.

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