

HORTICULTURE FIELD DAY REPORT - 1998

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EAST TEXAS SEEDLESS WATERMELON EVALUATIONS - 1996

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Background. Seedless (triploid) watermelons have become more popular in the past several years. Seedless cultivars are currently demanded in 10 percent of the commercial market. It has been estimated that this share could increase to 20 percent, or even 50, in the near future. In recent years, there has been an increased interest in growing seedless watermelons in the East Texas area.

Seedless watermelon production evaluations have been conducted by scientists with the Texas Agricultural Experiment Station and the Texas Agricultural Extension Service for several years. Further studies were implemented in the spring of 1996 in order to provide more information on production potential and quality of the varieties currently on the market. In the spring of 1996, 17 varieties of seedless watermelons were evaluated in replicated trials at the Texas A&M University Agricultural Research and Extension Center at Overton. Seedless watermelon plants were set three feet apart in the row on 13 May on raised beds spaced eight feet apart in a randomized complete block with three replications. A hybrid pollinator was planted to provide fruit set. One super hive of bees was placed in the field. The beds were covered with six feet wide black plastic mulch. Irrigation was by drip. Fertilization was 700 lbs 13-13-13/ac banded 24 April 1996.

Research Findings. 'Tri-X 313' was the highest yielding variety in the trial with 57,717 lb/ac. (1996 Seedless Table). The second highest yielding variety was '3F-855' with 46,125 lb/ac. In almost all cases, the largest percentage of melons weighed between 11 and 19 lbs. '3F-855', 'Tri-X Sunrise', and 'ASM F464' produced the largest percent of watermelons in the 20 lb or larger range while 'Summer Sweet 5544', 'Genesis', and 'Gem Dandy' had the largest percent of watermelons in the 11-19 lb range. High BRIX TC (16 or higher) related to soluble solids and sweetness was found in '3F1004', 'Summer Sweet 5244', 'Favorite Ball' and 'Genesis'.

Application. This information can be used by growers to determine which seedless varieties have the potential for profitable production in the East Texas area. Small investigative plantings should be made at first before entering full-scale seedless watermelon production.

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1996 TEXAS A&M UNIVERSITY STATEWIDE SEEDLESS WATERMELON TRIALS - OVERTON

Entry	Seed Source ^z	Total Yield (lbs/ac)	% Fruit Range (lbs)			BRIX TC
			<20	11-19	>10	
Tri-X 313	2	57,717	0.0	60.8	39.2	14.3
3F-855	3	46,125	21.6	63.0	15.4	14.4
Gem Dandy	6	45,939	4.1	78.7	17.2	15.8
Summer Sweet 5244	1	45,385	9.3	72.4	18.3	16.2
Favorite Ball	3	43,193	0.0	55.0	45.0	16.1
ASM F464	2	41,301	19.2	63.5	17.3	15.5
Summer Sweet 5544	1	41,196	0.0	93.2	6.8	15.5
Summer Sweet 2532	2	39,664	12.9	71.5	15.6	14.7
Tri-X Sunrise	2	35,809	19.8	49.2	31.0	15.8
3F-1004	3	35,759	0.0	68.0	32.0	16.5
Summer Sweet 3521Y	1	34,377	0.0	39.1	60.9	15.0
Genesis	5	34,226	0.0	79.5	20.5	16.0
Tri-X Shadow	2	31,995	0.0	68.4	31.6	14.4
Revelation	5	31,236	0.0	55.3	44.7	15.5
3F-1174	3	26,628	0.0	39.1	60.9	14.8
3F-1273	3	24,832	0.0	49.2	50.8	15.4
Premiere	4	19,439	0.0	48.2	51.8	14.4
LSD (P = 0.05)		20,603	18.8	37.3	37.5	----

^z Seed Source: 1 - Abbott & Cobb; 2 - American Sunmelon; 3 - CDM Fast Track; 4 - Sunseeds; 5 - Willhite

Establishment: Transplanted on 8 ft. plastic covered raised beds with 3 ft. in row spacing on 13 May.

Design: Randomized complete block with three replications

Harvest: 9, 15 July

Irrigation: Drip as needed

Fertilization: 700 lbs 13-13-13/ac banded 24 April