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EAST TEXAS SEEDLESS WATERMELON EVALUATIONS - 1991

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Background. New varieties of seedless watermelons are being introduced each year due to consumer demands. We are seeing a better selection of fruit size, shape, and rind color. New flesh colors are also making their way to the market place. Recently, a yellow flesh seedless variety, 'Honey Heart', was released.

Due to growers' interest in triploid or seedless watermelons, newer varieties were evaluated in a cooperative effort between the Texas Agricultural Experiment Station and the Texas Agricultural Extension Service at the Texas A&M University Agricultural Research and Extension Center, Overton in the spring of 1991. Companies supplied seeds of seedless or triploid varieties to be tested.

The use of transplants grown on plastic mulches to shorten growing time, to keep down weeds, to conserve water, and to improve quality is becoming more common. The main complaint from potential growers about seedless watermelon production is the cost factor. Seedless watermelon seeds may cost for $150 to $200 per 1,000 seeds, and planting seed in the same manner and quantities that standard melons are planted could result in seed costs of $700 to $900 per acre.

Research Findings. The results are presented in Table 1. Two varieties, 'Crimson Trio' and 'Scarlet Trio,' yielded at least 3 tons per acre more than any of the Heart Series (King, Queen and Jack). Although these two varieties merit small test plantings, continued evaluation is required before a definite recommendation as to their potential can be made.

Application. Seedless watermelons have become more popular in the past several years. Seedless cultivars are currently estimated at 5 percent of the commercial watermelon market, with a potential share of 15 to 50 percent. Much of the seedless melon market may be driven by sales of cut melons for the food service industries. Consumers in Texas markets are willing to pay an additional 5 cents to 7 cents per pound for seedless watermelons. Studies have indicated a slight eating quality preference for seedless watermelons.

With the difficulties in growing seedless watermelons and greater costs of production, growers and marketers need to carefully assess the market potential for seedless watermelons before entering into full scale production.

Table 1. TAEX/TAES Trials: Spring 1991 - Seedless Watermelon Evaluations, Overton, Texas

Variety	Seed source	Yield per acre (lbs)	Melon number per acre	Average melon wt. (lbs)	Soluble solids (%)
		SEEDLESS TRIAL			
Crimson Trio	3	42498	4084	10.2	9.5
Scarlet Trio	3	41073	2813	15.0	11.0
Queen of Hearts	4	38659	3358	11.5	11.0
Jack of Hearts	4	36236	3267	11.3	11.1
SSuper Sweet 5344	1	36064	2813	13.0	11.0
King of Hearts	4	35565	3176	11.3	11.0
Honey Heart	4	33097	3993	8.3	9.5
SSuper Sweet 5032	1	32779	3267	9.6	10.1
SSuper Sweet 3731	1	30247	2995	10.2	10.4
SSuper Sweet 5244	1	29339	2450	11.9	11.5
SSuper Sweet 4073	1	14928	1906	8.0	10.0

Pollinator - Star Brite (Asgrow)

Data obtained for trial from one harvest: July 1, 1991

Seed Source: 1 - Abbott & Cobb; 2 - Asgrow; 3 - Northrup King; 4 - Petoseed
Design: Randomized complete block with 3 reps
Transplanting Date: April 5
Location: Texas A&M University Agricultural Research and Extension Center, Overton, TX