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HYBRID WATERMELON EVALUATIONS - 1992

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Background. Watermelons are available late April to mid-December, but 80% of the melons are marketed in June, July, and August. Texas is second in the United States in watermelon production. East Texas is considered the major production area in Texas with an estimated 25,000 acres. The majority of this acreage is planted to hybrids.

In a cooperative effort between the Texas Agricultural Experiment Station and the Texas Agricultural Extension Service, ongoing watermelon evaluation trials are being conducted. In the spring of 1992, 16 hybrids were evaluated in replicated trials at the Texas A&M University Agricultural Research and Extension Center, at Overton.

Research Findings. Watermelon plants were set 3 ft apart in the row on 25 April on raised beds spaced 10 ft apart. The beds were covered with brown photo-degradable plastic mulch. Irrigation was by drip. Fertilization was by recommendation from the Texas A&M Soil Testing Lab. Data were obtained from harvest on 2 July and 8 July. Several varieties produced yields of over 30,000 lbs/ac (Table 1). The highest yielding variety in the trial was 'Summer Flavor 410' with 42,220 lbs/ac. 'Fiesta', 'Huck Finn', and 'Summer Flavor 410' produced the highest percent of melons over 20 lbs. Overall, the highest percent of melons were in the 11 to 19 lb range. Varieties producing 50 percent or more in the 10 lb or less range were 'Summer Flavor 400', 'Royal Sweet', and 'Star Brite'. 'Royal Sweet' showed the highest soluble solids (sugar content) with 12.0%.

Application. Growers can use the information obtained from this trial to determine what varieties they need to grow to meet certain market demands such as size and sweetness. These data can also be used to inform growers of the production potential of some of the newer varieties being offered by seed companies. With further varietal evaluations and new cultural practices, watermelon production in East Texas could increase from its current 33% of total production in Texas.

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Table 1. Total yield, percent of melons in 3 weight ranges, and percent soluble solids of 16 hybrid watermelon varieties grown at Overton, Texas.

Variety	Seed source ^z	Total yield per acre (lbs)	Weight range (lbs)			Soluble solids (%)
			<20	11-19	>10	
			-----%-----			
Summer Flavor 410	1	42,220	21	52	27	10.8
Summer Flavor 600	1	35,641	17	68	15	8.6
Summer Flavor 200	1	34,703	6	62	32	8.8
Regency	4	34,591	17	78	5	7.2
Summer Flavor 710	1	34,569	11	74	15	10.4
Mirage	2	32,536	0	54	46	8.2
Summer Flavor 400	1	32,235	0	50	50	10.0
Royal Jubilee	4	30,269	16	58	26	10.2
Fiesta	3	29,286	33	62	5	9.8
Summer Flavor 700	1	28,437	0	71	29	10.8
Royal Star	4	27,912	11	59	30	9.8
Huck Finn	5	25,421	24	59	17	8.1
Royal Sweet	4	22,439	0	43	57	12.0
Star Brite	2	21,467	0	43	57	11.2
Summer Flavor 610	1	19,960	0	62	38	8.4
Royal Majesty	4	19,167	0	54	46	11.0
LSD (0.05)		23,973	30	NS	50	---

^zSeed source: 1 - Abbott & Cobb; 2 - Asgrow; 3 - Northrup King; 4 - Petoseed; 5 - Ferry-Morse.