

FIELD DAY REPORT - 1993

Texas A&M University Agricultural Research and Extension Center at Overton

**Texas Agricultural Experiment Station
Texas Agricultural Extension Service**

Overton, Texas

May 28, 1993

Research Center Technical Report 93-1

All Programs and information of the Texas Agricultural Experiment Station and Texas Agricultural Extension Service are available to everyone without regard to race, color, religion, sex, age, or national origin.

Mention of trademark of a proprietary product does not constitute a guarantee or a warranty of the product by the Texas Agricultural Experiment Station or Texas Agricultural Extension Service and does not imply its approval to the exclusion of other products that also may be suitable.

EAST TEXAS SEEDLESS WATERMELON EVALUATIONS - 1992

D. R. Earhart, M. L. Baker and F. J. Dainello

Background. Seedless (triploid) watermelons have become more popular in the past several years. Seedless cultivars are currently demanded in 5 percent of the commercial market. It has been estimated that this share could increase to 15 or even 50 percent 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 1992 in order to provide more information on production potential and quality of the varieties currently on the market. In the spring of 1992, 9 varieties of seedless watermelons were evaluated in replicated trials at the Texas A&M University Research and Extension Center at Overton.

Research Findings. Seedless watermelon plants were set 3 ft apart in the row on 27 April on raised beds spaced 10 ft apart. The beds were covered with brown photo-degradable mulch. Irrigation was by drip. Fertilization was by recommendation from the Texas A&M Soil Testing Lab.

'Super Sweet 5244' was the highest yielding variety in the trial with 46,541 lb/ac (Table 1). The second highest yielding variety was 'King of Hearts' with 30,647 lb/ac. In almost all cases, the largest percentage of melons weighed between 9 and 14 lbs. 'Queen of Hearts', 'Super Sweet 5244', and 'Crimson Trio' produced the largest percent of melons in the 15 lb or larger range while 'Super Sweet 3731' had the most in the 8 lb or less category. All varieties contained very high sugars (soluble solids). 'Super Sweet 2532' was the highest with 11.6%.

Application. This information can be used by growers to determine which seedless varieties now on the market have the potential for profitable production in the East Texas area. The data can also be used to inform interested parties as to what size melons they can expect from each variety as well as eating quality as far as sweetness is concerned.

Since seedless watermelons are more difficult to grow and at greater cost than conventional varieties, it is recommended that interested growers contact their Extension specialist for up-to-date production practices. Also, small investigative plantings should be made at first before entering full-scale production.

Acknowledgement. This research was supported in part by trial entry fees paid by

cooperating seed companies.

Table 1. Total yield, percent of melons in 3 weight ranges, and percent soluble solids of 9 seedless watermelon varieties grown at Overton, Texas.

| Variety | Seed source ^z | Total yield per acre (lbs) | Weight range (lbs) | | | Soluble solids (%) |
|------------------|--------------------------|----------------------------|--------------------|------|----|--------------------|
| | | | <15 | 9-14 | >8 | |
| | | | -----%----- | | | |
| Super Sweet 5244 | 1 | 46,541 | 19 | 46 | 35 | 11.2 |
| King of Hearts | 4 | 30,647 | 12 | 67 | 21 | 11.2 |
| Super Sweet 3731 | 1 | 27,646 | 6 | 43 | 51 | 11.4 |
| Queen of Hearts | 4 | 25,613 | 20 | 57 | 23 | 11.0 |
| Super Sweet 2532 | 1 | 25,197 | 13 | 55 | 32 | 11.6 |
| Crimson Trio | 3 | 24,336 | 19 | 50 | 31 | 11.0 |
| Scarlet Trio | 3 | 23,745 | 15 | 60 | 25 | 10.2 |
| Tiffany | 2 | 20,299 | 5 | 71 | 24 | 10.2 |
| Super Sweet 5032 | 1 | 19,350 | 9 | 60 | 31 | 11.0 |
| LSD .05 | | 28,843 | 24 | 67 | 44 | --- |

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