UNIVERSITY OF DELAWARE

# SEEDLESS WATERMELON VARIETY TRIAL RESULTS 2010

**Gordon Johnson & Emmalea Ernest**

**University of Delaware**
**Elbert N. & Ann V. Carvel Research and Education Center**
**16483 County Seat Highway**
**Georgetown, DE 19947**

# Table of Contents

# 2010 University of Delaware Seedless Watermelon Variety Trial

Gordon Johnson & Emmalea Ernest
University of Delaware
Elbert N. & Ann V. Carvel Research and Education Center
16483 County Seat Highway
Georgetown, DE 19947
(302) 856-7303 gcjohn@udel.edu emmalea@udel.edu

## Introduction

The 2010 Seedless Watermelon Variety Trial included 31 varieties from seven participating companies. The purpose of this trial is to evaluate seedless watermelon varieties for yield, quality and maturity.

## Materials and Methods

### *Location*

Field 12 at the University of Delaware Research and Education Center Farm, Georgetown, DE.

### *Cultural Practices*

Field was fertilized according to soil test results. On May 7, 2010, 60 lbs/A of nitrogen (30% UAN) was applied before the beds were shaped and black plastic mulch and trickle irrigation were laid on 7' centers.

There were 31 entries in the trial this year. Plants were seeded in the greenhouse on April 16, 2010 and transplanted to the field on May 17, 2010. Field plots were one row (7 ft) wide and 30 ft. long. Plots were arranged in a randomized complete block design with three replications. In-row spacing was 3' or 10 plants per plot. A total of three plants of the in-row pollenizer variety 'Sidekick' were planted in each plot: between the second and third plants, the fifth and sixth plants, and the eighth and ninth plants. The border rows next to the drive rows, which separated the replications, were planted in the diploid variety 'Stargazer'.

An application of Gramoxone 2 pt/A +Sandea 0.6 oz/A +Prefar 5 qt/A was made to the row middles on June 1 with a hooded sprayer. Gramoxone 2pt/A +Crop Oil Concentrate 0.16 qt/A was applied with a hooded sprayer on June 18, 2010. Vines were turned before this application as they had just started to run off of the plastic. Select 10 oz/A was applied on July 15, 2010. Applications for disease and insect control were as follows: Bravo at 3 pt/A on 6-12, 6-19, 6-26, 7-10, 7-16, 7-24, 8-1, and 8-13; Previcur Flex at 8.5 oz/A on 7-10; Ranman at 2.75 oz/A on 7-16 and 8-1;Oberon at 8 oz/A on 7-16; and Lamda Star at 4 oz/a on 7-16.

The trial was fertigated with UAN on June 22 (50 lb/mulched A), July 12 (25 lb/mulched A), and July 26 (25 lb/mulched A).

### *Harvest*

Melons were harvested four times: on July 16$^{th}$, on July 23 & 26$^{th}$, on August 12$^{th}$, and on August 25$^{th}$. The weight of each watermelon harvested was recorded individually. Five melons from each plot were cut and evaluated for presence of hollow heart and soluble solids levels.

Soluble solids were measured using a hand-held refractometer and hollow heart cracks were measured at their widest point with a metric ruler.

## Results

Yields of each variety in lbs/A, as well as yield in lbs/A for each of the four harvests, are reported in Table 1. Overall yields of each variety in melons/A, and yield in melons/A for each of the three harvests are reported in Table 2. There were significant differences in yield as measured in lbs/A, however not as measured in melons/A. 'Crunchy Red' and 'SS 7187' were two of the highest yielding varieties that have also performed well in past year's trials. Several of the top yielding varieties were new to our trials, 'SugaRed', 'Declaration', and 'ACX 6277'. These varieties show potential for high yields in our area. The standard variety, 'Tri-X 313', continues to produce good yields in our trials.

Table 3 lists the varieties according to average melon weight and gives the percentage of melons in each of five weight classes: <8 lbs, 8-14 lbs, 14-18 lbs, 18-22 lbs, and > 22 lbs.

Table 4 reports the percent of total harvest for the four harvests and gives a clearer picture of the maturity of each variety. The earliest variety in the trial was 'Pee Dee Sweet'. The earliest varieties with Crimson Sweet – type rinds were 'SSX 7609', 'Summer King' and 'Melody'. The latest varieties were 'Millionaire' and 'Crunchy Red'.

Table 5 lists the varieties according to their soluble solid measurements. Soluble solids averages are based on a 15-melon sample (5 melons per replication). There were significant differences in soluble solids among the varieties. All of the varieties had average soluble solids of over 10%.

Table 7 lists the varieties according to the percent of melons with hollow heart. This table also gives the average width of the hollow heart in centimeters. Hollow heart averages are based on a 15-melon sample (5 melons per replication). Hollow heart incidence was very low in the trial this year and there were no significant differences in either the incidence or size of hollow heart among the varieties.

Photographs of the varieties included in the trial are in Appendix A.

## Acknowledgements

The authors gratefully acknowledge:

seasonal Extension Vegetable Program employees Brooke Drury, Chelsea Aydelotte and Heather Baker for their assistance throughout the trial, and especially during harvest.

seasonal employees Gunner Isaacs, Shawn Miller, Doug Root and Tyler Warfel for assistance during harvest.

Brian Hearn and the REC Farm Crew for assistance with field operations and irrigation.

Seedway, LLC, for donation of seed for the border rows.

**Table 1. 2010 Seedless Watermelon Variety Trial: Varieties by Yield in Lbs/A**

| Variety | Yields in Lbs/A* | | | | | Seed Source |
|---|---|---|---|---|---|---|
| | Lbs/A | Harvest 1 60 DAT | Harvest 2 67/70 DAT | Harvest 3 87 DAT | Harvest 4 100 DAT | |
| Crunchy Red | 108395 a | 0 | 3655 | 87287 | 17453 | Harris Moran |
| SugaRed | 100647 ab | 0 | 38168 | 48013 | 14466 | Siegers |
| SS 7187 | 95268 abc | 0 | 40388 | 47292 | 7587 | Abbott & Cobb |
| Declaration | 89080 abcd | 0 | 30270 | 51830 | 6979 | Nunhems |
| ACX 6277 | 83903 bcde | 0 | 38432 | 33898 | 11573 | Abbott & Cobb |
| Tri-X 313 | 82298 bcdef | 3538 | 34340 | 33244 | 11176 | check |
| RWT8228 | 81806 bcdef | 0 | 45903 | 29668 | 6235 | Syngenta |
| HSR 4620 | 81145 bcdef | 6321 | 35936 | 33673 | 5215 | Hollar |
| Fascination | 77419 cdefg | 6076 | 45189 | 23154 | 2999 | Syngenta |
| SSX 7609 | 77403 cdefg | 11750 | 28711 | 27856 | 9085 | Sakata |
| Sugar Coat | 76746 cdefg | 4010 | 42495 | 23116 | 7125 | Siegers |
| Sorbet | 76541 cdefg | 17116 | 25776 | 25390 | 8259 | Hollar |
| SS 7197 | 74640 cdefgh | 2584 | 35508 | 26609 | 9939 | Abbott & Cobb |
| ACR 4106T | 73598 cdefgh | 0 | 32832 | 33128 | 7638 | Abbott & Cobb |
| Liberty | 73163 cdefgh | 5451 | 37226 | 25598 | 4888 | Nunhems |
| Red Winner | 72381 defgh | 0 | 38486 | 28315 | 5580 | Siegers |
| Troubadour | 72380 defgh | 0 | 50519 | 16813 | 5049 | Harris Moran |
| Millionaire | 70451 defgh | 0 | 2190 | 60027 | 8233 | Harris Moran |
| ACX 4674T | 70327 defgh | 0 | 46026 | 16921 | 7380 | Abbott & Cobb |
| Gypsy | 69802 defgh | 0 | 53776 | 8399 | 7627 | Harris Moran |
| SS 7167 | 69307 defgh | 0 | 42187 | 19464 | 7656 | check |
| HSR 4619 | 69088 defgh | 0 | 45445 | 13692 | 9951 | Hollar |
| Melody | 66598 defgh | 7128 | 23218 | 28276 | 7976 | Syngenta |
| HSR 4624 | 64005 efgh | 3795 | 35373 | 24837 | 0 | Hollar |
| Summer King | 63549 efgh | 7222 | 29069 | 21437 | 5821 | Syngenta |
| Pee Dee Sweet | 60875 fgh | 20034 | 14018 | 18844 | 7979 | Siegers |
| RWT8229 | 60734 fgh | 0 | 48526 | 7981 | 4228 | Syngenta |
| HSR 3770 | 57861 gh | 10991 | 26303 | 19123 | 1443 | Hollar |
| SSX 7436 | 57520 gh | 0 | 32134 | 19081 | 6306 | Sakata |
| 8114 | 56438 gh | 2488 | 32491 | 14058 | 7401 | Siegers |
| SWT 7138 | 51977 h | 0 | 25711 | 18679 | 7586 | Sakata |
| $LSD_{0.05}$ | 19962 | | | | | |
| *p*-value | 0.0012 | | | | | |

**Table 2. 2010 Seedless Watermelon Variety Trial: Varieties by Yield in Melons/A**

| Variety | Yields in Melons/A | | | | | Seed Source |
|---|---|---|---|---|---|---|
| | Melons/A | Harvest 1 60 DAT | Harvest 2 67/70 DAT | Harvest 3 87 DAT | Harvest 4 100 DAT | |
| Sorbet | 7122 a | 1798 | 2697 | 1798 | 830 | Hollar |
| SugaRed | 6016 a | 0 | 2489 | 2489 | 1037 | Siegers |
| SS 7187 | 5808 a | 0 | 2627 | 2627 | 553 | Abbott & Cobb |
| Crunchy Red | 5808 a | 0 | 208 | 4563 | 1037 | Harris Moran |
| RWT8228 | 5739 a | 0 | 3388 | 1867 | 484 | Syngenta |
| Declaration | 5670 a | 0 | 2074 | 3042 | 553 | Nunhems |
| Troubadour | 5601 a | 0 | 3941 | 1176 | 484 | Harris Moran |
| SSX 7609 | 5601 a | 899 | 2351 | 1659 | 691 | Sakata |
| HSR 3770 | 5531 a | 1245 | 2696 | 1452 | 139 | Hollar |
| Tri-X 313 | 5393 a | 277 | 2351 | 1936 | 830 | check |
| HSR 4620 | 5393 a | 484 | 2558 | 2005 | 346 | Hollar |
| ACX 4674T | 5324 a | 0 | 3526 | 1245 | 553 | Abbott & Cobb |
| Fascination | 5324 a | 484 | 3250 | 1452 | 138 | Syngenta |
| Gypsy | 5324 a | 0 | 4148 | 622 | 553 | Harris Moran |
| Melody | 5186 a | 622 | 1797 | 2074 | 692 | Syngenta |
| SS 7197 | 5117 a | 208 | 2420 | 1659 | 830 | Abbott & Cobb |
| Liberty | 5047 a | 484 | 2489 | 1729 | 346 | Nunhems |
| ACR 4106T | 4978 a | 0 | 2489 | 1798 | 691 | Abbott & Cobb |
| Pee Dee Sweet | 4840 a | 1521 | 1106 | 1590 | 622 | Siegers |
| Sugar Coat | 4771 a | 277 | 2766 | 1175 | 553 | Siegers |
| Summer King | 4771 a | 622 | 2212 | 1452 | 484 | Syngenta |
| Red Winner | 4771 a | 0 | 2835 | 1590 | 346 | Siegers |
| ACX 6277 | 4702 a | 0 | 2351 | 1729 | 622 | Abbott & Cobb |
| HSR 4624 | 4702 a | 415 | 2696 | 1590 | 0 | Hollar |
| SWT 7138 | 4632 a | 0 | 2351 | 1521 | 761 | Sakata |
| SS 7167 | 4563 a | 0 | 2696 | 1245 | 623 | check |
| RWT8229 | 4494 a | 0 | 3526 | 623 | 346 | Syngenta |
| HSR 4619 | 4287 a | 0 | 3042 | 830 | 415 | Hollar |
| Millionaire | 4149 a | 0 | 138 | 3388 | 622 | Harris Moran |
| SSX 7436 | 4080 a | 0 | 2351 | 1244 | 484 | Sakata |
| 8114 | 3872 a | 208 | 2351 | 761 | 553 | Siegers |
| $LSD_{0.05}$ | NA | | | | | |
| *p*-value | 0.0609 | | | | | |

## Table 3. 2010 Seedless Watermelon Variety Trial: Varieties by Average Melon Weight

| Variety | Mean Weight (lbs) | Percent of Melons in Each Size Class | | | | |
|---|---|---|---|---|---|---|
| | | < 8.00 lbs | 8.00-14.00 lbs | 14.01-18.00 lbs | 18.01-22.00 lbs | >22.00 lbs |
| Crunchy Red | 18.6 | 0.0 | 9.5 | 39.3 | 36.9 | 14.3 |
| ACX 6277 | 17.9 | 1.5 | 22.1 | 33.8 | 20.6 | 22.1 |
| Millionaire | 17.0 | 0.0 | 18.3 | 38.3 | 38.3 | 5.0 |
| SugaRed | 16.8 | 0.0 | 26.4 | 41.4 | 20.7 | 11.5 |
| SS 7187 | 16.4 | 0.0 | 27.4 | 41.7 | 23.8 | 7.1 |
| HSR 4619 | 16.1 | 0.0 | 32.3 | 45.2 | 14.5 | 8.1 |
| Sugar Coat | 16.1 | 0.0 | 36.2 | 33.3 | 21.7 | 8.7 |
| Declaration | 15.7 | 1.2 | 35.4 | 47.6 | 7.3 | 8.5 |
| Tri-X 313 | 15.2 | 0.0 | 35.9 | 48.7 | 12.8 | 2.6 |
| SS 7167 | 15.2 | 0.0 | 31.8 | 57.6 | 7.6 | 3.0 |
| Red Winner | 15.2 | 0.0 | 43.5 | 33.3 | 17.4 | 5.8 |
| HSR 4620 | 15.0 | 0.0 | 35.9 | 50.0 | 11.5 | 2.6 |
| ACR 4106T | 14.8 | 2.8 | 50.0 | 20.8 | 23.6 | 2.8 |
| 8114 | 14.6 | 0.0 | 46.4 | 37.5 | 14.3 | 1.8 |
| SS 7197 | 14.5 | 0.0 | 52.7 | 33.8 | 12.2 | 1.4 |
| Fascination | 14.5 | 0.0 | 50.6 | 37.7 | 9.1 | 2.6 |
| Liberty | 14.5 | 0.0 | 50.7 | 35.6 | 11.0 | 2.7 |
| RWT8228 | 14.3 | 0.0 | 50.6 | 39.8 | 4.8 | 4.8 |
| SSX 7436 | 14.1 | 0.0 | 50.8 | 40.7 | 5.1 | 3.4 |
| SSX 7609 | 13.8 | 2.5 | 55.6 | 33.3 | 4.9 | 3.7 |
| HSR 4624 | 13.6 | 2.9 | 58.8 | 29.4 | 5.9 | 2.9 |
| RWT8229 | 13.5 | 1.5 | 61.5 | 33.8 | 3.1 | 0.0 |
| Summer King | 13.4 | 1.4 | 56.5 | 34.8 | 5.8 | 1.4 |
| ACX 4674T | 13.3 | 0.0 | 70.1 | 27.3 | 1.3 | 1.3 |
| Gypsy | 13.1 | 1.3 | 68.8 | 26.0 | 3.9 | 0.0 |
| Troubadour | 12.9 | 1.2 | 65.4 | 29.6 | 1.2 | 2.5 |
| Melody | 12.8 | 2.7 | 69.3 | 24.0 | 4.0 | 0.0 |
| Pee Dee Sweet | 12.6 | 1.4 | 70.0 | 22.9 | 5.7 | 0.0 |
| SWT 7138 | 11.2 | 1.5 | 86.6 | 7.5 | 4.5 | 0.0 |
| Sorbet | 10.7 | 17.5 | 68.9 | 10.7 | 2.9 | 0.0 |
| HSR 3770 | 10.5 | 18.8 | 75.0 | 2.5 | 3.8 | 0.0 |

**Table 4. 2010 Seedless Watermelon Variety Trial: Percent of Total Harvested at Each Harvest**

| Variety | Percent of Total Harvested at Each Harvest | | | |
|---|---|---|---|---|
| | Harvest 1 60 DAT | Harvest 2 67/70 DAT | Harvest 3 87 DAT | Harvest 4 100 DAT |
| Pee Dee Sweet | 33 | 23 | 31 | 13 |
| Sorbet | 22 | 34 | 33 | 11 |
| HSR 3770 | 19 | 45 | 33 | 2 |
| SSX 7609 | 15 | 37 | 36 | 12 |
| Summer King | 11 | 46 | 34 | 9 |
| Melody | 11 | 35 | 42 | 12 |
| Fascination | 8 | 58 | 30 | 4 |
| HSR 4620 | 8 | 44 | 41 | 6 |
| Liberty | 7 | 51 | 35 | 7 |
| HSR 4624 | 6 | 55 | 39 | 0 |
| Sugar Coat | 5 | 55 | 30 | 9 |
| 8114 | 4 | 58 | 25 | 13 |
| Tri-X 313 | 4 | 42 | 40 | 14 |
| SS 7197 | 3 | 48 | 36 | 13 |
| RWT8229 | 0 | 80 | 13 | 7 |
| Gypsy | 0 | 77 | 12 | 11 |
| Troubadour | 0 | 70 | 23 | 7 |
| HSR 4619 | 0 | 66 | 20 | 14 |
| ACX 4674T | 0 | 65 | 24 | 10 |
| SS 7167 | 0 | 61 | 28 | 11 |
| RWT8228 | 0 | 56 | 36 | 8 |
| SSX 7436 | 0 | 56 | 33 | 11 |
| Red Winner | 0 | 53 | 39 | 8 |
| SWT 7138 | 0 | 49 | 36 | 15 |
| ACX 6277 | 0 | 46 | 40 | 14 |
| ACR 4106T | 0 | 45 | 45 | 10 |
| SS 7187 | 0 | 42 | 50 | 8 |
| SugaRed | 0 | 38 | 48 | 14 |
| Declaration | 0 | 34 | 58 | 8 |
| Millionaire | 0 | 3 | 81 | 16 |
| Crunchy Red | 0 | 3 | 85 | 12 |

**Table 5. 2010 Seedless Watermelon Variety Trial: Varieties by Soluble Solid Content**

| Variety | % Soluble Solids | |
|---|---|---|
| HSR 4620 | 12.2 | a |
| SugaRed | 12.1 | ab |
| SS 7187 | 12.0 | abc |
| Red Winner | 11.9 | abcd |
| HSR 4619 | 11.8 | abcde |
| ACX 6277 | 11.8 | abcdef |
| Crunchy Red | 11.7 | abcdef |
| RWT8228 | 11.7 | abcdefg |
| HSR 4624 | 11.7 | abcdefg |
| RWT8229 | 11.6 | bcdefgh |
| SS 7167 | 11.5 | cdefgh |
| Troubadour | 11.5 | cdefgh |
| SSX 7436 | 11.5 | cdefgh |
| Gypsy | 11.5 | cdefgh |
| Liberty | 11.4 | defghi |
| Declaration | 11.4 | defghi |
| Sugar Coat | 11.4 | defghi |
| Millionaire | 11.3 | efghi |
| ACR 4106T | 11.3 | efghi |
| HSR 3770 | 11.2 | fghij |
| SSX 7609 | 11.2 | fghij |
| 8114 | 11.2 | ghij |
| Tri-X 313 | 11.2 | ghij |
| SS 7197 | 11.2 | hij |
| Summer King | 11.1 | hij |
| Sorbet | 11.1 | hij |
| Fascination | 10.9 | ijk |
| Melody | 10.9 | ijk |
| SWT 7138 | 10.8 | jk |
| ACX 4674T | 10.7 | jk |
| Pee Dee Sweet | 10.5 | k |
| *p*-value | <0.0001 | |
| $LSD_{0.05}$ | 0.5483 | |

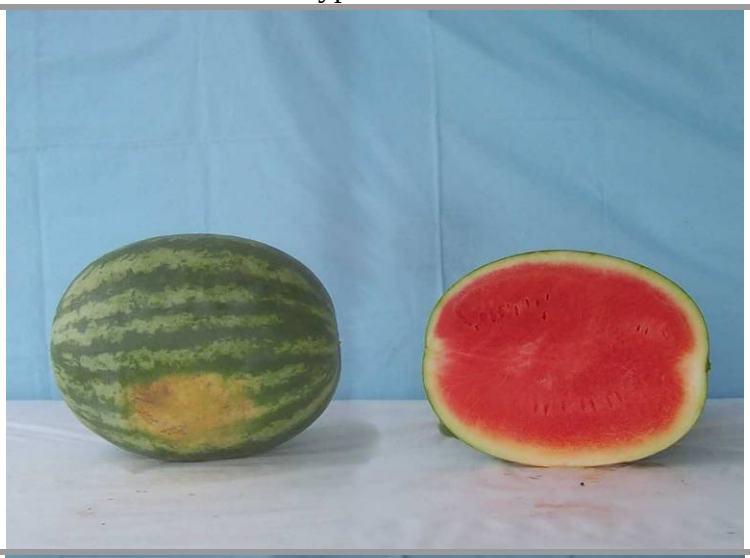
**Table 6. 2010 Seedless Watermelon Variety Trial: Percent of Melons with Hollow Heart and Size of Hollow Heart**

| Variety | % Melons with Hollow Heart | Average Size of Hollow Heart (cm) |
|---|---|---|
| SSX 7436 | 26.667 a | 0.15333 a |
| Summer King | 20.000 a | 0.10667 a |
| Pee Dee Sweet | 20.000 a | 0.06667 a |
| Millionaire | 20.000 a | 0.20667 a |
| SSX 7609 | 20.000 a | 0.09333 a |
| Tri-X 313 | 13.333 a | 0.05333 a |
| SWT 7138 | 13.333 a | 0.14667 a |
| SS 7167 | 6.667 a | 0.02667 a |
| SS 7187 | 6.667 a | 0.10667 a |
| SS 7197 | 6.667 a | 0.00667 a |
| ACX 6277 | 6.667 a | 0.02000 a |
| ACR 4106T | 6.667 a | 0.02000 a |
| Liberty | 6.667 a | 0.03333 a |
| Declaration | 6.667 a | 0.03333 a |
| HSR 4619 | 6.667 a | 0.02000 a |
| SugaRed | 6.667 a | 0.18667 a |
| Gypsy | 6.667 a | 0.06667 a |
| Red Winner | 6.667 a | 0.03333 a |
| ACX 4674T | 0 a | 0 a |
| RWT8228 | 0 a | 0 a |
| RWT8229 | 0 a | 0 a |
| Fascination | 0 a | 0 a |
| Melody | 0 a | 0 a |
| HSR 4624 | 0 a | 0 a |
| HSR 4620 | 0 a | 0 a |
| Sorbet | 0 a | 0 a |
| HSR 3770 | 0 a | 0 a |
| Sugar Coat | 0 a | 0 a |
| 8114 | 0 a | 0 a |
| Crunchy Red | 0 a | 0 a |
| Troubadour | 0 a | 0 a |
| *p*-value | 0.1432 | 0.2720 |
| $LSD_{0.05}$ | NS | NS |

# APPENDIX A:

## Photographs of Varieties in the 2010 Seedless Watermelon Variety Trial

Standard Crimson Sweet-Type Melons*



**Crunchy Red**

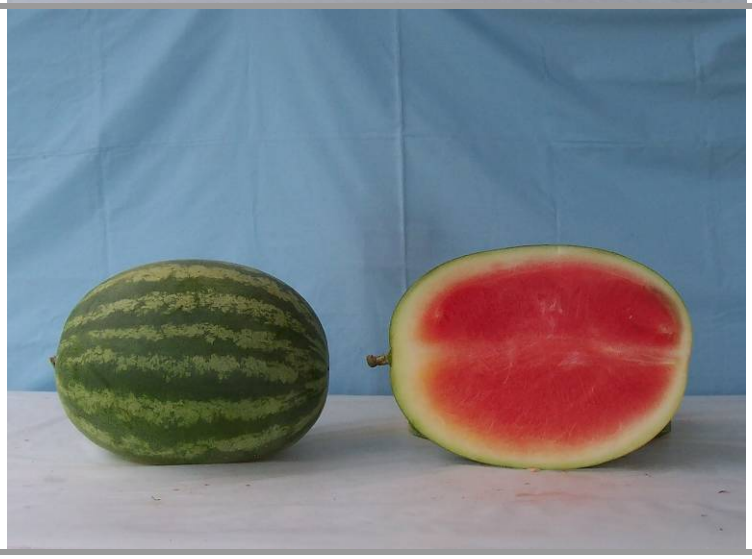
Yield: 108,395 lbs/A (1)
Mean Weight: 18.6 lbs (1)
Soluble Solids: 11.7% (7)

Harris Moran

**SugaRed**

Yield: 100,647 lbs/A (2)
Mean Weight: 16.8 lbs (4)
Soluble Solids: 12.1% (2)

Siegers



**SS 7187**

Yield: 95,268 lbs/A (3)
Mean Weight: 16.4 lbs (5)
Soluble Solids: 12.0% (3)

Abbott & Cobb



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Standard Crimson Sweet-Type Melons*

**Declaration**

Yield: 89,080 lbs/A (4)
Mean Weight: 15.7 lbs (8)
Soluble Solids: 11.4% (15)

Nunhems

**ACX 6277**

Yield: 83,903 lbs/A (5)
Mean Weight: 17.9 lbs (2)
Soluble Solids: 11.8% (5)

Abbott & Cobb

**Tri-X 313**

Yield: 82,298 lbs/A (6)
Mean Weight: 15.2 lbs (9)
Soluble Solids: 11.2% (20)

Syngenta



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Standard Crimson Sweet-Type Melons*

**RWT 8228**

Yield: 81,806 lbs/A (7)
Mean Weight: 14.3 lbs (18)
Soluble Solids: 11.7% (7)

Syngenta

**HSR 4620**

Yield: 81,145 lbs/A (8)
Mean Weight: 15.0 lbs (12)
Soluble Solids: 12.2% (1)

Hollar Seed Company

**Fascination**

Yield: 77,419 lbs/A (9)
Mean Weight: 14.5 lbs (15)
Soluble Solids: 10.9% (27)

Syngenta



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Standard Crimson Sweet-Type Melons*

**SSX 7609**

Yield: 77,403 lbs/A (10)
Mean Weight: 13.8 lbs (20)
Soluble Solids: 11.2% (20)

Sakata

**Sugar Coat**

Yield: 76,746 lbs/A (11)
Mean Weight: 16.1 lbs (6)
Soluble Solids: 11.4% (15)

Siegers

**SS 7197**

Yield: 74,640 lbs/A (13)
Mean Weight: 14.5 lbs (15)
Soluble Solids: 11.2% (20)

Abbott & Cobb



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Standard Crimson Sweet-Type Melons*

**ACR 4106T**

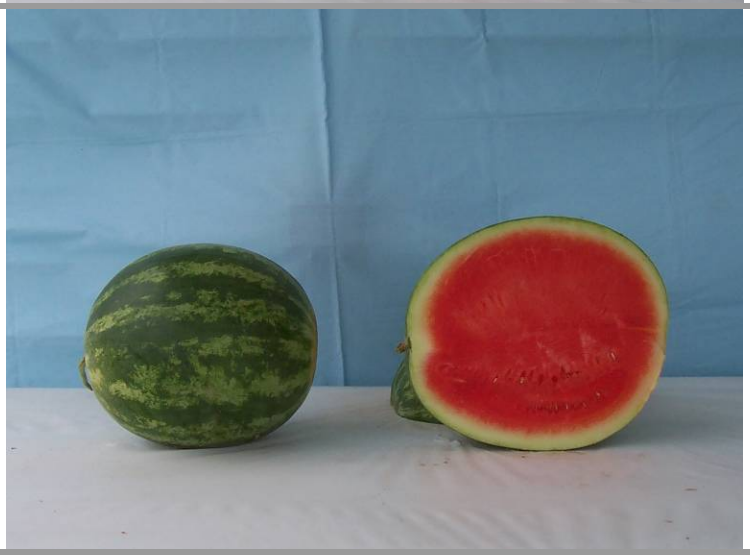
Yield: 73,598 lbs/A (14)
Mean Weight: 14.8 lbs (13)
Soluble Solids: 11.3% (18)

Abbott & Cobb

**Liberty**

Yield: 73,163 lbs/A (15)
Mean Weight: 14.5 lbs (15)
Soluble Solids: 11.4% (15)

Nunhems



**Red Winner**

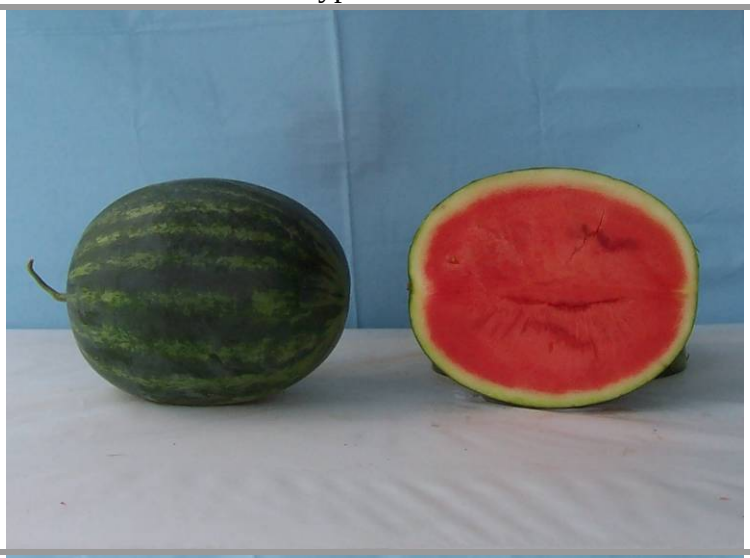
Yield: 72,381 lbs/A (16)
Mean Weight: 15.2 lbs (9)
Soluble Solids: 11.9% (4)

Siegers



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Standard Crimson Sweet-Type Melons*



**Troubadour**

Yield: 72,380 lbs/A (17)
Mean Weight: 12.9 lbs (26)
Soluble Solids: 11.5% (11)

Harris Moran

**Millionaire**

Yield: 70,451 lbs/A (18)
Mean Weight: 17.0 lbs (3)
Soluble Solids: 11.3% (18)

Harris Moran

**ACX 4674T**

Yield: 70,327 lbs/A (19)
Mean Weight: 13.3 lbs (24)
Soluble Solids: 10.7% (30)

Abbott & Cobb



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Standard Crimson Sweet-Type Melons*

**Gypsy**

Yield: 69,802 lbs/A (20)
Mean Weight: 13.1 lbs (25)
Soluble Solids: 11.5% (11)

Harris Moran

**SS 7167**

Yield: 69,307 lbs/A (21)
Mean Weight: 15.2 lbs (9)
Soluble Solids: 11.5% (11)

Abbott & Cobb

**Melody**

Yield: 66,598 lbs/A (23)
Mean Weight: 12.8 lbs (27)
Soluble Solids: 10.9% (27)

Syngenta



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Standard Crimson Sweet-Type Melons*

**Summer King**

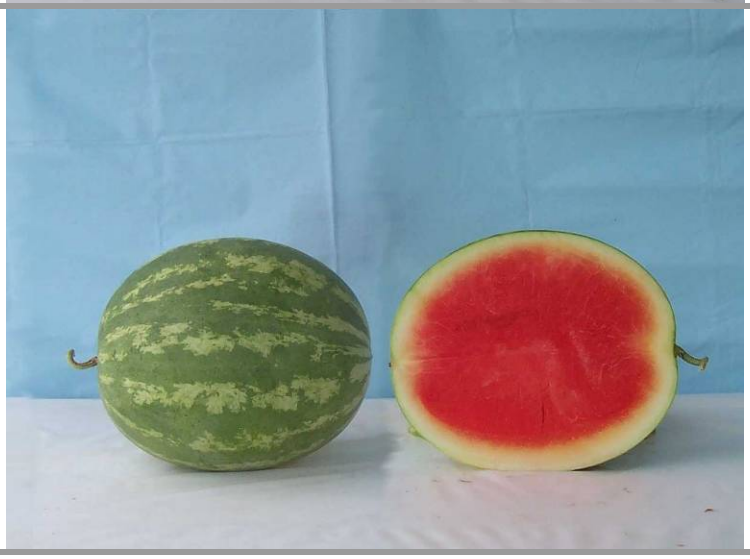
Yield: 63,549 lbs/A (25)
Mean Weight: 13.4 lbs (23)
Soluble Solids: 11.1% (25)

Syngenta

**RWT 8229**

Yield: 60,734 lbs/A (27)
Mean Weight: 13.5 lbs (22)
Soluble Solids: 11.6% (10)

Syngenta



**SSX 7436**

Yield: 57,520 lbs/A (29)
Mean Weight: 14.1 lbs (19)
Soluble Solids: 11.5% (11)

Sakata



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Red-Fleshed Melons continued*

**8114**

Yield: 56,438 lbs/A (30)
Mean Weight: 14.6 lbs (14)
Soluble Solids: 11.2% (20)

Siegers

**SWT 7138**

Yield: 51,977 lbs/A (31)
Mean Weight: 11.2 lbs (29)
Soluble Solids: 10.8% (29)

Sakata



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Melons with Unconventional Vines*

**Sorbet**

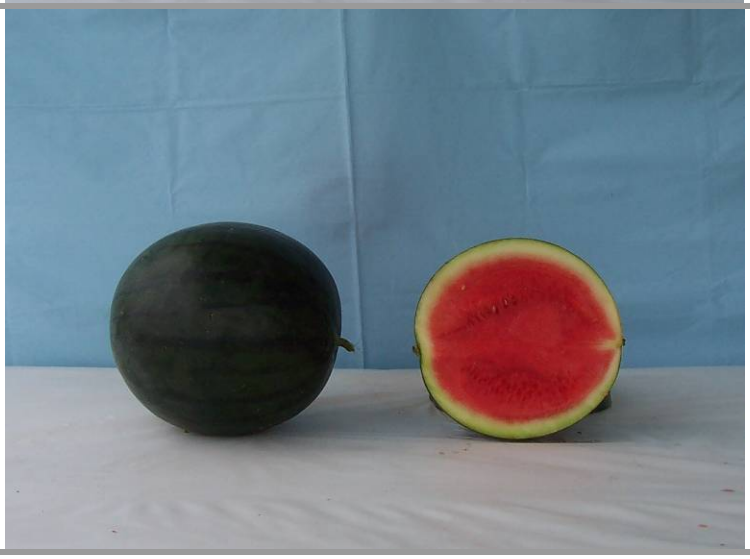
Yield: 76,541 lbs/A (12)
Mean Weight: 10.7 lbs (30)
Soluble Solids: 11.1% (25)

Hollar Seed Company

**Pee Dee Sweet**

Yield: 60,875 lbs/A (26)
Mean Weight: 12.6 lbs (28)
Soluble Solids: 10.5% (31)

Siegers



**HSR 3770**

Yield: 57,861 lbs/A (28)
Mean Weight: 10.5 lbs (31)
Soluble Solids: 11.2% (20)

Hollar Seed Company



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

Long Melons*

**HSR 4619**

Yield: 69,088 lbs/A (22)
Mean Weight: 16.1 lbs (6)
Soluble Solids: 11.8% (5)

Hollar Seed Company

**HSR 4624**

Yield: 64,005 lbs/A (24)
Mean Weight: 13.6 lbs (21)
Soluble Solids: 11.7% (7)

Hollar Seed Company



*Numbers in parenthesis are the rank of the variety for this characteristic out of the 31 varieties.

# APPENDIX B:
## Weather Summary for the 2010 Watermelon Variety Trial
## May 17th (transplanting) – August 25th (final harvest)

**Appendix B: Weather Summary for the 2010 Watermelon Variety Trial May 17th (transplanting) – August 25th (final harvest)**

| DAT | Date | Max Temp °F | Min Temp °F | Rainfall (in.) |
|---|---|---|---|---|
| **0** | 17-May | 63.7 | 49.5 | 0.03 |
| **1** | 18-May | 58.3 | 51.2 | 1.12 |
| **2** | 19-May | 65.9 | 51.7 | 0 |
| **3** | 20-May | 77.6 | 51.1 | 0 |
| **4** | 21-May | 86.2 | 54.2 | 0 |
| **5** | 22-May | 76.4 | 58.5 | 0 |
| **6** | 23-May | 72.9 | 60.6 | 0 |
| **7** | 24-May | 70.6 | 60 | 0 |
| **8** | 25-May | 75.6 | 58.9 | 0 |
| **9** | 26-May | 87.4 | 54.1 | 0 |
| **10** | 27-May | 80.9 | 59.2 | 0 |
| **11** | 28-May | 74.3 | 58.9 | 0 |
| **12** | 29-May | 82.1 | 59.5 | 0 |
| **13** | 30-May | 87.3 | 66.3 | 0 |
| **14** | 31-May | 91.3 | 63.2 | 0 |
| **15** | 1-Jun | 85.5 | 69.8 | 0 |
| **16** | 2-Jun | 89.3 | 68.2 | 0 |
| **17** | 3-Jun | 88.4 | 69.3 | 0 |
| **18** | 4-Jun | 89.8 | 68.1 | 0 |
| **19** | 5-Jun | 90.5 | 75.3 | 0 |
| **20** | 6-Jun | 90.3 | 67 | 0 |
| **21** | 7-Jun | 76.1 | 58.9 | 0 |
| **22** | 8-Jun | 76.5 | 55.7 | 0 |
| **23** | 9-Jun | 72.3 | 57.3 | 0 |
| **24** | 10-Jun | 87.2 | 68.8 | 0 |
| **25** | 11-Jun | 80.3 | 60.2 | 0 |
| **26** | 12-Jun | 86.6 | 61.9 | 0 |
| **27** | 13-Jun | 92.4 | 73.8 | 0 |
| **28** | 14-Jun | 87.3 | 68 | 0 |
| **29** | 15-Jun | 78.6 | 67.7 | 0 |
| **30** | 16-Jun | 83.3 | 66.7 | 0 |
| **31** | 17-Jun | 85.5 | 66.5 | 0 |
| **32** | 18-Jun | 82.9 | 57.9 | 0 |
| **33** | 19-Jun | 88.1 | 61.2 | 0 |
| **34** | 20-Jun | 93.7 | 72 | 0 |
| **35** | 21-Jun | 90.5 | 66.6 | 0 |
| **36** | 22-Jun | 92.8 | 66.3 | 0 |
| **37** | 23-Jun | 91.9 | 68.5 | 0 |
| **38** | 24-Jun | 94.7 | 74.1 | 0 |
| **39** | 25-Jun | 87.3 | 71 | 0 |
| **40** | 26-Jun | 89.1 | 67.4 | 0 |
| **41** | 27-Jun | 94.3 | 73 | 0 |
| **42** | 28-Jun | 94.9 | 76.8 | 0.23 |
| **43** | 29-Jun | 88.6 | 76.3 | 0.05 |
| **44** | 30-Jun | 79.7 | 58.9 | 0 |
| **45** | 1-Jul | 77.4 | 57.3 | 0 |
| **46** | 2-Jul | 78.8 | 53.7 | 0 |
| **47** | 3-Jul | 85.1 | 55.4 | 0 |
| **48** | 4-Jul | 90.7 | 63 | 0 |

| DAT | Date | Max Temp (°F) | Min Temp (°F) | Rainfall (in.) |
|---|---|---|---|---|
| **49** | 5-Jul | 96 | 68 | 0 |
| **50** | 6-Jul | 100 | 68.9 | 0 |
| **51** | 7-Jul | 95.5 | 72.8 | 0 |
| **52** | 8-Jul | 84.3 | 73.4 | 0 |
| **53** | 9-Jul | 87.4 | 71.8 | 0.02 |
| **54** | 10-Jul | 76.9 | 70.3 | 1.15 |
| **55** | 11-Jul | 86.9 | 68.5 | 0.01 |
| **56** | 12-Jul | 88.1 | 67.5 | 0 |
| **57** | 13-Jul | 86.8 | 73.5 | 0.31 |
| **58** | 14-Jul | 81.3 | 72.5 | 0.03 |
| **59** | 15-Jul | 88.1 | 71.3 | 0 |
| **60** | 16-Jul | 93.4 | 73.2 | 0 |
| **61** | 17-Jul | 91.1 | 75.1 | 0 |
| **62** | 18-Jul | 92.3 | 72.8 | 0 |
| **63** | 19-Jul | 88.6 | 74.9 | 0 |
| **64** | 20-Jul | 92.2 | 73.4 | 0 |
| **65** | 21-Jul | 90.7 | 73.6 | 0 |
| **66** | 22-Jul | 91.2 | 72.1 | 0 |
| **67** | 23-Jul | 94.8 | 72.1 | 0 |
| **68** | 24-Jul | 97.9 | 79.7 | 0 |
| **69** | 25-Jul | 97.9 | 72.2 | 0.09 |
| **70** | 26-Jul | 84.7 | 66.9 | 0 |
| **71** | 27-Jul | 88.3 | 61.5 | 0 |
| **72** | 28-Jul | 89.8 | 72.9 | 0 |
| **73** | 29-Jul | 90.8 | 74.4 | 0.78 |
| **74** | 30-Jul | 81.9 | 65.1 | 0 |
| **75** | 31-Jul | 85.7 | 60.4 | 0 |
| **76** | 1-Aug | 80.9 | 66.3 | 0.08 |
| **77** | 2-Aug | 81.8 | 68.5 | 0 |
| **78** | 3-Aug | 87.5 | 65.3 | 0 |
| **79** | 4-Aug | 88.8 | 73.8 | 0 |
| **80** | 5-Aug | 94.4 | 73.8 | 0.36 |
| **81** | 6-Aug | 88.5 | 69.2 | 0 |
| **82** | 7-Aug | 87.2 | 64 | 0 |
| **83** | 8-Aug | 89.2 | 65.6 | 0 |
| **84** | 9-Aug | 92.2 | 71.1 | 0.01 |
| **85** | 10-Aug | 96.1 | 73.1 | 0 |
| **86** | 11-Aug | 93.7 | 74.4 | 0 |
| **87** | 12-Aug | 85 | 73.1 | 0.54 |
| **88** | 13-Aug | 79.8 | 70.1 | 0 |
| **89** | 14-Aug | 80.4 | 62.9 | 0 |
| **90** | 15-Aug | 81.4 | 67 | 0 |
| **91** | 16-Aug | 90.7 | 73 | 0 |
| **92** | 17-Aug | 83.2 | 75.5 | 0 |
| **93** | 18-Aug | 76.6 | 68.3 | 0.69 |
| **94** | 19-Aug | 86.1 | 69.7 | 0 |
| **95** | 20-Aug | 89.9 | 68.4 | 0 |
| **96** | 21-Aug | 88.7 | 65.1 | 0 |
| **97** | 22-Aug | 85.5 | 72.5 | 0.34 |
| **98** | 23-Aug | 82.3 | 67.8 | 0 |
| **99** | 24-Aug | 71.2 | 65.2 | 0.01 |
| **100** | 25-Aug | 76.6 | 62.8 | 0 |