

UNIVERSITY OF DELAWARE



SEEDLESS WATERMELON VARIETY TRIAL RESULTS 2015

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

Introduction.....	1
Materials and Methods.....	1
Results	2
Acknowledgements	3
Table 1. Entries in the 2015 Watermelon Variety Trial.....	4
Table 2. 2015 Seedless Watermelon Variety Trial: Total Yield, Marketable I and Marketable II Yields in Pounds/Acre and Fruit/Acre.....	5
Table 3. 2015 Seedless Watermelon Variety Trial: Varieties by Marketable I Yield in Lbs/A	7
Table 4. 2015 Seedless Watermelon Variety Trial: Varieties by Marketable I Yield in Fruit/A.....	8
Table 5. 2015 Seedless Watermelon Variety Trial: Percent of Total Harvested at Each Harvest by Weight	9
Table 6. 2015 Seedless Watermelon Variety Trial: Varieties by Average Fruit Weight and Percent of Fruit in Each Size Class	10
Table 7. 2015 Seedless Watermelon Variety Trial: Varieties by Average Fruit Weight and Yield by Size Class	11
Table 8. 2015 Seedless Watermelon Variety Trial: Varieties by Soluble Solid Content.....	12
Table 9. 2015 Seedless Watermelon Variety Trial: Percent of Sampled Fruit with Hollow Heart and Percent with Hollow Heart Rendering Them Unmarketable.....	13
Table 10. 2015 Seedless Watermelon Variety Trial: Percent of Sampled Fruit with Mature Seeds Rendering Them Unmarketable*	14
APPENDIX A: Photographs of Varieties in the 2015 Seedless Watermelon Variety Trial.....	15
APPENDIX B: Weather Summary for the 2015 Watermelon Variety Trial.....	29

2015 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 2015 Seedless Watermelon Variety Trial included 38 varieties from twelve participating companies. The purpose of this trial is to evaluate seedless watermelon varieties for yield, quality and maturity.

Materials and Methods

Location

Field 25A at the University of Delaware Research and Education Center Farm, Georgetown, DE.

Cultural Practices

Field was fertilized and limed according to soil test results. Black plastic mulch and trickle irrigation were laid on 7' centers.

There were 38 entries in the trial this year. Plants were seeded in the greenhouse on April 15, 2015 except for Wolverine and Razorback, which were seeded on April 16. Plants were transplanted to the field on May 19, 2015. 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 3ft or 10 plants per plot. Two plants of the in-row pollenizer variety 'Accomplice' and two plants of the in-row pollinizer 'Sp-6' were planted in each plot in the following arrangement: s A s s s 6 s s s A s s s 6. "A" designates Accomplize, "6" designates Sp-6 and "s" designates the seedless plants. The border rows next to the drive rows, which separated the replications, were planted in the triploid variety 'SS 9651', with the Accomplize and Sp-6 as the pollenizers, in the same arrangement as the experimental plots. 'SS 9651' has a solid medium green rind and was easily distinguishable from the trial entries.

An application of Gramoxone 2 qt/A + Sandea (halosulfuron) 0.75 oz/A + Prowl 1 qt/A + Dual 1 pt/A + Strategy 1.5 pt/A was made to the row middles on May 30 with a hooded sprayer. Vines were turned before this application as they had just started to run off of the plastic.

Plots were fertigated with 40 lbs/A of N on June 19 (30% UAN) and again on July 6

Applications for disease and insect control were as follows:

- 6-10: Chlorothalonil 3 pt/A, Inspire Super 16 oz/A, Assail 5.3 oz/A
- 6-17: Chlorothalonil 3 pt/A, Inspire Super 16 oz/A, Assail 5.3 oz/A
- 6-24: Chlorothalonil 3 pt/A, Tebuconazole 8 oz/A, Portal 2 pt/A
- 7-1 : Chlorothalonil 3 pt/A, Inspire Super 16 oz/A, Ranman 2.75 oz/A
- 7-10: Chlorothalonil 3 pt/A, Tebuconazole 8 oz/A, Previcur Flex 1.2 pt/A

7-25: Chlorothalonil 3 pt/A, Tebuconazole 8 oz/A, Previcur Flex 1.2 pt/A
7-31: Chlorothalonil 3 pt/A, Tebuconazole 8 oz/A, Previcur Flex 1.2 pt/A
8-7: Chlorothalonil 3 pt/A, Previcur Flex 1.2 pt/A
8-13: Chlorothalonil 3 pt/A, Previcur Flex 1.2 pt/A, Portal 1 qt/A
8-20: Chlorothalonil 3 pt/A, Presidio 3 oz/A

Harvest

Fruit were harvested three times. The first harvest was begun on July 24 and was completed on July 28. The second harvest took three days to complete replication 1 was harvested on August 6, replication 2 on August 10 and replication 3 on August 12. The final harvest was on August 24. The weight of each watermelon harvested was recorded individually. Five marketable watermelons from each plot were cut and evaluated for presence of hollow heart, hard seeds and soluble solids levels. Watermelons were cut lengthwise and then crosswise and the number of hard seeds visible on the surface of the four pieces were counted. Soluble solids were measured using a hand-held refractometer. Hollow heart cracks were rated as absent (0), present but fruit is marketable (1) or present rendering fruit unmarketable (2).

Results

Total yield, marketable yield excluding misshapen culls and fruit less than 9 lbs (Marketable Yield I) and marketable yield excluding misshapen culls, fruit less than 9 lbs and fruit over 24 lbs (Marketable Yield II) are reported in Table 2 in both pounds per acre and fruit per acre for each variety. Yields in the trial were high this year and fruit were large. The highest yielding varieties in the trial in terms of Marketable Yield I in lbs/A were: Exclamation, SV7112WA, Charismatic, Joy Ride, Maxima, Razorback, WDL0409, SV0241WA, Sugar Fresh, Unbridled, KB12142, Secretariat, SV0258WA, Wolverine, Premont, Talca, Fascination, Cut Above, Captivation and Road Trip.

The highest yielding varieties in the trial in terms of Marketable Yield I in fruit/A were: Charismatic, SV0241WA, Secretariat, WDL0409, Joy Ride, SV7112WA, Traveler, KB12142, Sugar Fresh, Razorback, Maxima, Exclamation, Wolverine, Cut Above, Road Trip and Troubadour.

There were no statistically significant differences between varieties in terms of Marketable II yield in pounds per acre. The highest yielding varieties in terms of Marketable Yield II in fruit/A were: SV0241WA, Charismatic, Secretariat, WDL0409, Traveler, Sugar Fresh, Joy Ride, Cut Above, Unbridled, Razorback, Troubadour, and SV7112WA.

Total Marketable Yield I of each variety, as well as Marketable Yield I in for each of harvests, are reported in Table 3 in lbs/A and in Table 4 in fruit/A. Table 5 reports the percent of total harvest for each harvest. The following varieties produced more than 10,000 lbs of fruit over 9 lbs (Marketable I) at the first harvest: Captivation, Charismatic, Secretariat, Summer Breeze, Joy Ride, Poseidon, Traveler, Cut Above, and Lucille.

Table 6 lists the varieties according to average fruit weight and gives the percentage of fruit in each of four weight classes: 60 count (9.0-13.5 lbs), 45 count (13.6-17.5 lbs), 36 count (17.6-

21.4 lbs) and 30 count (>21.5 lbs). Table 7 lists the varieties according to average fruit weight and gives the yield of fruit in each of the weight classes. Exclamation and SV 0258WA had the largest average fruit size. Troubadour, Traveler and KB12023 produced the highest percentage of melons in the 60 count class; SV0241WA produced the highest yield of melons in the 60 count class. Secretariat and Cut Above produced the highest percentages of melons in the 45 count class; Secretariat also produced the highest yield of melons in this class. 7197 produced the highest percentage of melons in the 36 count class; Maxima, Sugar Fresh and Embassy produced the highest yield of melons in this class. Exclamation and SV0258WA produced the highest percentage of melons in the 30 count class and Exclamation also produced the highest yield of melons in this class.

Table 8 lists the varieties according to their soluble solid measurements. Soluble solids averages are based on a 15-fruit sample (5 fruit per replication). There were significant differences in soluble solids among the varieties. All of the varieties had average soluble solids of over 10%.

Table 9 lists the varieties according to the percent of fruit with hollow heart. Hollow heart averages are based on a 15-fruit sample (5 fruit per replication). There was some hollow heart observed in the trial this year. The varieties that were most affected were USAW90020, cut Above, Sweet Polly, Tri-X 313 WDL0409, Kingman, Premont, Charismatic, Poseidon, Embassy, Fascination, Lucille and Sweet Dawn. No hollow heart was observed in Exclamation, Captivation, 7187, Joy Ride, Road Trip, Neptune, Traveler, or Talca.

Table 10 lists the varieties according to the percent of fruit with enough hard seeds to render them unmarketable. Embassy had more than 4 hard seeds in 20% of the fruit sampled and Neptune had more than 4 hard seeds in 42% of fruit sampled. More than 4 hard seeds per fruit were also observed in fruit sampled from the following varieties: Premont, Secretariat, 7187, Sweet Dawn, Fascination, Crunchy Red, Exclamation, Talca, Unbridled, and Charismatic.

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

Acknowledgements

The authors gratefully acknowledge:

Extension Vegetable Program employees Brianna Bryfogle, Matthew Chaffinch, Kenna Hunt, Emma Rider, Danielle Vanderhei and Bert Weber for their assistance throughout the trial, and especially during harvest.

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

Nunhems for donation of seed for the border rows, and Harris Moran and Syngenta for donation of pollinizer seed.

Table 1. Entries in the 2015 Watermelon Variety Trial

Variety	Entering Company
Premont	Clifton Seed Co.
Cut Above	Clifton Seed Co.
Tri-X 313	Syngenta
Fascination	Syngenta
Exclamation	Syngenta
Captivation	Syngenta
Sweet Dawn	Syngenta
WDL0409	Syngenta
Sugar Fresh (0409)	Siegers
Sweet Polly	Siegers
Embassy (Nun31208)	Nunhems
Warrior (NUN01009)	Nunhems
7197	Nunhems
7187	check variety
USAW90020	US Agriseeds
Joy Ride (SV8298WA)	Seminis
Road Trip (SV7018WA)	Seminis
SV0241WA	Seminis
Summer Breeze (SV2757WA)	Seminis
SV0258WA	Seminis
SV7112WA	Seminis
Neptune	Seedway
Poseidon	Seedway
Charismatic	Sakata
Kingman	Sakata
Secretariat	Sakata
Unbridled	Sakata
KB12142	K&B Development, LLC
KB12023	K&B Development, LLC
Crunchy Red	check variety
Traveler	Harris Moran
Troubadour	Harris Moran
Talca	Origene Seeds
Lucille	Origene Seeds
Savannah	Origene Seeds
Maxima	Origene Seeds
Wolverine	Highmark Seed Co.
Razorback	Highmark Seed Co.

Table 2. 2015 Seedless Watermelon Variety Trial: Total Yield, Marketable I and Marketable II Yields in Pounds/Acre and Fruit/Acre

Variety	Company	Total Count (fruit/A)	Total Weight (lbs/A)	Marketable I Count (Fruit/A)	Marketable I Weight (lbs/A)	Marketable II Count (fruit/A)	Marketable II Weight (lbs/A)	Marketable I Mean Fruit Weight
Exclamation	Syngenta	5,324 abcdefghij	108,605 a	5,255 abcdefg	107,794 a	4,148 cdefgh	77,502 a	20.49
SV7112WA	Seminis	5,808 abcdef	108,338 a	5,601 abcd	106,047 ab	4,771 abcdefg	82,550 a	18.89
Charismatic	Sakata	6,707 a	107,918 a	6,430 a	104,993 ab	6,015 ab	94,282 a	16.32
Joy Ride	Seminis	6,223 ab	108,502 a	5,808 abc	104,053 abc	5,186 abcde	87,489 a	17.98
Maxima	Origene Seeds	5,324 abcdefghij	100,508 abc	5,324 abcdefg	100,508 abcd	4,356 cdefgh	74,039 a	18.86
Razorback	Highmark Seed Co.	5,532 abcdefghi	101,189 ab	5,462 abcdef	99,844 abcde	4,909 abcdefg	83,751 a	18.23
WDL0409	Syngenta	5,808 abcdef	98,555 abcd	5,808 abc	98,555 abcdef	5,531 abc	91,623 a	16.95
SV0241WA	Seminis	6,845 a	99,256 abcd	6,361 a	94,444 abcdefg	6,223 a	90,881 a	14.84
Sugar Fresh	Siegers	5,739 abcdefg	96,619 abcde	5,462 abcdef	94,379 abcdefg	5,255 abcd	88,941 a	17.27
Unbridled	Sakata	5,462 abcdefghi	95,143 abcdef	5,255 abcdefg	93,444 abcdefgh	4,909 abcdefg	84,531 a	17.78
KB12142	K&B Development	5,669 abcdefgh	94,670 abcdefg	5,531 abcde	93,243 abcdefghi	5,117 abcdef	82,713 a	16.90
Secretariat	Sakata	6,085 abcd	94,363 abcdefgh	5,946 ab	92,787 abcdefghi	5,601 abc	84,035 a	15.55
SV0258WA	Seminis	4,494 efghij	91,836 abcdefghi	4,356 cdefghi	90,467 abcdefghij	3,457 gh	65,633 a	20.72
Wolverine	Highmark Seed Co.	5,117 bcdefghij	90,442 abcdefghi	4,978 abcdefgh	89,269 abcdefghij	4,425 cdefgh	74,948 a	17.88
Premont	Clifton Seed Co.	4,840 bcdefghij	88,383 abcdefghi	4,840 bcdefghi	88,383 abcdefghij	4,356 cdefgh	75,331 a	18.31
Talca	Origene Seeds	4,978 bcdefghij	89,091 abcdefghi	4,840 bcdefghi	87,907 abcdefghij	4,495 bcdefgh	78,632 a	18.13
Fascination	Syngenta	4,840 bcdefghij	85,267 abcdefghi	4,840 bcdefghi	85,267 abcdefghij	4,287 cdefgh	70,921 a	17.65
Cut Above	Clifton Seed Co.	5,393 abcdefghi	85,297 abcdefghi	5,255 abcdefg	84,136 abcdefghij	5,117 abcdef	80,380 a	16.06
Captivation	Syngenta	4,702 bcdefghij	83,490 abcdefghi	4,702 bcdefghi	83,490 abcdefghij	4,356 cdefgh	74,730 a	17.66
Road Trip	Seminis	5,324 abcdefghij	87,149 abcdefghi	5,047 abcdefgh	83,382 abcdefghij	4,632 bcdefgh	70,750 a	16.47
Traveler	Harris Moran	6,154 abc	87,272 abcdefghi	5,670 abcd	82,213 bcdefghij	5,462 abc	76,678 a	14.51
Kingman	Sakata	4,632 cdefghij	83,159 abcdefghij	4,494 bcdefghi	82,053 bcdefghij	3,734 defgh	62,317 a	18.21
Embassy	Nunhems	4,840 bcdefghij	81,030 bcdefghij	4,702 bcdefghi	79,322 cdefghij	4,633 bcdefgh	77,411 a	16.94
Sweet Polly	Siegers	4,218 ghij	77,934 bcdefghij	4,218 defghi	77,934 defghijk	3,595 fgh	61,852 a	18.54
Crunchy Red	check variety	4,425 fghij	79,287 bcdefghij	4,287 defghi	77,755 defghijk	3,803 defgh	65,379 a	18.15
Troubadour	Harris Moran	6,015 abcde	85,087 abcdefghi	5,117 abcdefgh	77,506 defghijk	4,840 abcdefg	70,044 a	15.14
7197	Nunhems	4,149 hij	75,597 bcdefghij	4,079 efghi	74,983 efghijk	3,665 efgh	63,981 a	18.32
Lucille	Origene Seeds	4,564 defghij	75,345 cdefghij	4,494 bcdefghi	74,151 fghijk	4,217 cdefgh	67,284 a	16.46
Summer Breeze	Seminis	4,080 ij	74,311 defghij	4,010 fghi	73,747 fghijk	3,595 fgh	62,546 a	18.33
7187	check variety	4,079 ij	72,565 efghij	4,079 efghi	72,565 ghijk	3,664 efgh	61,691 a	17.81
Tri-X 313	Syngenta	4,148 hij	71,877 efghij	3,872 ghi	68,929 hijk	3,457 gh	58,052 a	17.84
<i>p-value</i>		0.0043	0.0032	0.0075	0.0013	0.0153	0.0694	
LSD		1578	25790	1499.3	25108	1589.6	NA	

Total Yield includes misshapen culls, under and oversize fruit. Marketable Yield I excludes misshapen culls and fruit less than 9 lbs. Marketable Yield II excludes misshapen culls, fruit less than 9 lbs, and fruit over 24 lbs.

Table 2 continues on the next page

Table 2 Continued. 2015 Seedless Watermelon Variety Trial: Total Yield, Marketable I and Marketable II Yields in Pounds/Acre and Fruit/Acre

Variety	Company	Total Count (fruit/A)	Total Weight (lbs/A)	Marketable I Count (Fruit/A)	Marketable I Weight (lbs/A)	Marketable II Count (fruit/A)	Marketable II Weight (lbs/A)	Marketable I Mean Fruit Weight
Savannah	Origene Seeds	3,803 j	68,779 hij	3,733 hi	68,171 ijk	3,388 gh	58,763 a	18.31
USAW90020	US Agriseeds	4,287 fghij	70,181 fghij	4,010 fghi	67,437 jk	3,872 defgh	64,025 a	16.79
Warrior	Nunhems	4,356 fghij	69,060 ghij	4,079 efghi	66,416 jk	3,803 defgh	59,437 a	16.25
Poseidon	Seedway	4,632 cdefghij	66,713 ij	4,563 bcdefghi	66,168 jk	4,563 bcdefgh	66,168 a	14.54
KB12023	K&B Development	5,601 abcdefghi	73,854 defghij	4,633 bcdefghi	65,955 jk	4,633 bcdefgh	65,955 a	14.31
Neptune	Seedway	4,494 efghij	68,350 ih	4,218 defghi	65,805 jk	4,218 cdefgh	65,805 a	15.54
Sweet Dawn	Syngenta	3,803 j	57,495 j	3,388 i	53,749 k	3,180 h	48,240 a	15.87
	<i>p-value</i>	0.0043	0.0032	0.0075	0.0013	0.0153	0.0694	
	LSD	1578	25790	1499.3	25108	1589.6	NA	

Total Yield includes misshapen culls, under and oversize fruit. Marketable Yield I excludes misshapen culls and fruit less than 9 lbs. Marketable Yield II excludes misshapen culls, fruit less than 9 lbs, and fruit over 24 lbs.

Table 3. 2015 Seedless Watermelon Variety Trial: Varieties by Marketable I Yield in Lbs/A

Variety	Yields in Lbs/A				Seed Source
	Marketable I Yield Lbs/A	Harvest 1 66 & 70 DAT	Harvest 2 79, 83 & 85 DAT	Harvest 3 97 DAT	
Exclamation	107,794 a	1,192	75,782	30,820	Syngenta
SV7112WA	106,047 ab	1,043	74,582	30,423	Seminis
Charismatic	104,993 ab	16,303	72,921	15,770	Sakata
Joy Ride	104,053 abc	11,754	61,013	31,286	Seminis
Maxima	100,508 abcd	4,270	48,834	47,404	Origene Seeds
Razorback	99,844 abcde	4,183	64,686	30,975	Highmark Seed Co.
WDL0409	98,555 abcdef	0	72,014	26,541	Syngenta
SV0241WA	94,444 abcdefg	1,487	65,774	27,183	Seminis
Sugar Fresh	94,379 abcdefg	924	60,098	33,357	Siegers
Unbridled	93,444 abcdefgh	7,022	63,248	23,174	Sakata
KB12142	93,243 abcdefghi	2,273	64,770	26,200	K&B Development
Secretariat	92,787 abcdefghi	14,375	55,082	23,330	Sakata
SV0258WA	90,467 abcdefghij	944	64,315	25,207	Seminis
Wolverine	89,269 abcdefghij	957	57,862	30,451	Highmark Seed Co.
Premont	88,383 abcdefghij	942	65,507	21,933	Clifton Seed Co.
Talca	87,907 abcdefghij	1,106	52,959	33,841	Origene Seeds
Fascination	85,267 abcdefghij	5,541	59,598	20,127	Syngenta
Cut Above	84,136 abcdefghij	10,430	52,430	21,277	Clifton Seed Co.
Captivation	83,490 abcdefghij	18,359	49,354	15,777	Syngenta
Road Trip	83,382 abcdefghij	2,249	64,154	16,980	Seminis
Traveler	82,213 bcdefghij	10,481	66,569	5,162	Harris Moran
Kingman	82,053 bcdefghij	1,380	52,998	27,675	Sakata
Embassy	79,322 cdefghij	1,263	58,596	19,464	Nunhems
Sweet Polly	77,934 defghijk	979	59,517	17,438	Siegers
Crunchy Red	77,755 defghijk	2,629	52,391	22,736	check variety
Troubadour	77,506 defghijk	1,647	54,128	21,732	Harris Moran
7197	74,983 efghijk	951	60,987	13,044	Nunhems
Lucille	74,151 fghijk	10,348	52,284	11,519	Origene Seeds
Summer Breeze	73,747 fghijk	14,300	37,410	22,036	Seminis
7187	72,565 ghijk	6,830	48,313	17,423	check variety
Tri-X 313	68,929 hijk	1,452	53,652	13,824	Syngenta
Savannah	68,171 ijk	5,653	44,552	17,966	Origene Seeds
USAW90020	67,437 jk	8,769	45,354	13,314	US Agriseeds
Warrior	66,416 jk	2,135	56,538	7,743	Nunhems
Poseidon	66,168 jk	11,014	37,930	17,223	Seedway
KB12023	65,955 jk	1,115	54,013	10,828	K&B Development
Neptune	65,805 jk	962	59,107	5,735	Seedway
Sweet Dawn	53,749 k	4,250	33,139	16,361	Syngenta
<i>p-value</i>	0.0075				
LSD_{0.05}	1499.3				

Table 4. 2015 Seedless Watermelon Variety Trial: Varieties by Marketable I Yield in Fruit/A

Variety	Yields in Fruit/A				Seed Source
	Marketable I Yield Fruit/A	Harvest 1 66 & 70 DAT	Harvest 2 79, 83 & 85 DAT	Harvest 3 97 DAT	
Charismatic	6,430 a	1,175	4,494	761	Sakata
SV0241WA	6,361 a	138	4,494	1,729	Seminis
Secretariat	5,946 ab	1,037	3,595	1,314	Sakata
WDL0409	5,808 abc	0	4,356	1,452	Syngenta
Joy Ride	5,808 abc	830	3,388	1,590	Seminis
Traveler	5,670 abcd	761	4,633	277	Harris Moran
SV7112WA	5,601 abcd	69	3,941	1,590	Seminis
KB12142	5,531 abcde	138	3,941	1,452	K&B Development
Sugar Fresh	5,462 abcdef	69	3,526	1,867	Siegers
Razorback	5,462 abcdef	277	3,665	1,521	Highmark Seed Co.
Maxima	5,324 abcdefg	277	2,766	2,282	Origene Seeds
Exclamation	5,255 abcdefg	69	3,803	1,383	Syngenta
Unbridled	5,255 abcdefg	484	3,526	1,245	Sakata
Cut Above	5,255 abcdefg	691	3,319	1,245	Clifton Seed Co.
Troubadour	5,117 abcdefgh	138	3,665	1,314	Harris Moran
Road Trip	5,047 abcdefgh	138	4,149	761	Seminis
Wolverine	4,978 abcdefgh	69	3,319	1,590	Highmark Seed Co.
Premont	4,840 bcdefghi	69	3,665	1,106	Clifton Seed Co.
Fascination	4,840 bcdefghi	346	3,388	1,106	Syngenta
Talca	4,840 bcdefghi	69	3,042	1,729	Origene Seeds
Captivation	4,702 bcdefghi	1,106	2,766	830	Syngenta
Embassy	4,702 bcdefghi	69	3,457	1,175	Nunhems
KB12023	4,633 bcdefghi	69	3,803	761	K&B Development
Poseidon	4,563 bcdefghi	830	2,627	1,106	Seedway
Kingman	4,494 bcdefghi	69	3,042	1,383	Sakata
Lucille	4,494 bcdefghi	691	3,181	622	Origene Seeds
SV0258WA	4,356 cdefghi	69	3,042	1,245	Seminis
Crunchy Red	4,287 defghi	138	2,835	1,314	check variety
Sweet Polly	4,218 defghi	69	3,181	968	Siegers
Neptune	4,218 defghi	69	3,803	346	Seedway
Warrior	4,079 efghi	138	3,526	415	Nunhems
7197	4,079 efghi	69	3,388	622	Nunhems
7187	4,079 efghi	484	2,627	968	check variety
USAW90020	4,010 fghi	553	2,697	761	US Agriseeds
Summer Breeze	4,010 fghi	899	1,936	1,175	Seminis
Tri-X 313	3,872 ghi	69	3,111	691	Syngenta
Savannah	3,733 hi	415	2,420	899	Origene Seeds
Sweet Dawn	3,388 i	277	2,213	899	Syngenta
<i>p-value</i>	0.0075				
LSD_{0.05}	1499.3				

Table 5. 2015 Seedless Watermelon Variety Trial: Percent of Total Harvested at Each Harvest by Weight

Variety	Percent of Total Harvested at Each Harvest by Weight		
	Harvest 1 66 & 70 DAT	Harvest 2 79, 83 & 85 DAT	Harvest 3 97 DAT
Captivation	22.0	59.1	18.9
Summer Breeze	19.4	50.7	29.9
Poseidon	16.6	57.3	26.0
Charismatic	15.5	69.5	15.0
Secretariat	15.5	59.4	25.1
Lucille	14.0	70.5	15.5
USAW90020	13.0	67.3	19.7
Traveler	12.7	81.0	6.3
Cut Above	12.4	62.3	25.3
Joy Ride	11.3	58.6	30.1
7187	9.4	66.6	24.0
Savannah	8.3	65.4	26.4
Sweet Dawn	7.9	61.7	30.4
Unbridled	7.5	67.7	24.8
Fascination	6.5	69.9	23.6
Maxima	4.2	48.6	47.2
Razorback	4.2	64.8	31.0
Crunchy Red	3.4	67.4	29.2
Warrior	3.2	85.1	11.7
Road Trip	2.7	76.9	20.4
KB12142	2.4	69.5	28.1
Troubadour	2.1	69.8	28.0
Tri-X 313	2.1	77.8	20.1
KB12023	1.7	81.9	16.4
Kingman	1.7	64.6	33.7
Embassy	1.6	73.9	24.5
SV0241WA	1.6	69.6	28.8
Neptune	1.5	89.8	8.7
7197	1.3	81.3	17.4
Talca	1.3	60.2	38.5
Sweet Polly	1.3	76.4	22.4
Exclamation	1.1	70.3	28.6
Wolverine	1.1	64.8	34.1
Premont	1.1	74.1	24.8
SV0258WA	1.0	71.1	27.9
SV7112WA	1.0	70.3	28.7
Sugar Fresh	1.0	63.7	35.3
WDL0409	0.0	73.1	26.9

Table 6. 2015 Seedless Watermelon Variety Trial: Varieties by Average Fruit Weight and Percent of Fruit in Each Size Class

Variety	Mean Marketable I Weight (lbs)	Percent of Fruit in Each Size Class			
		60 Count 9.0-13.5 lbs	45 Count 13.6-17.5 lbs	36 Count 17.6-21.4 lbs	30 Count 21.5 lbs plus
SV0258WA	20.72 a	4.8	23.8	28.6	42.9
Exclamation	20.49 a	3.9	26.3	26.3	43.4
SV7112WA	18.89 b	14.8	33.3	21.0	30.9
Maxima	18.86 b	15.6	24.7	31.2	28.6
Sweet Polly	18.54 bc	18.0	23.0	26.2	32.8
Summer Breeze	18.33 bcd	8.6	36.2	32.8	22.4
7197	18.32 bcd	13.6	27.1	39.0	20.3
Premont	18.31 bcd	12.9	34.3	32.9	20.0
Savannah	18.31 bcd	18.5	27.8	35.2	18.5
Razorback	18.23 bcd	15.2	34.2	29.1	21.5
Kingman	18.21 bcd	16.9	30.8	27.7	24.6
Crunchy Red	18.15 bcd	17.7	33.9	22.6	25.8
Talca	18.13 bcd	15.7	32.9	30.0	21.4
Joy Ride	17.98 bcd	15.5	36.9	25.0	22.6
Wolverine	17.88 bcd	13.9	37.5	26.4	22.2
Tri-X 313	17.84 bcde	17.9	33.9	26.8	21.4
7187	17.81 bcdef	16.9	37.3	20.3	25.4
Unbridled	17.78 bcdef	19.7	30.3	26.3	23.7
Captivation	17.66 bcdefg	16.2	33.8	30.9	19.1
Fascination	17.65 bcdefg	15.7	42.9	24.3	17.1
Sugar Fresh	17.27 cdefgh	19.0	35.4	30.4	15.2
WDL0409	16.95 defgh	21.4	39.3	26.2	13.1
Embassy	16.94 defgh	20.6	32.4	35.3	11.8
KB12142	16.90 defgh	23.8	38.8	18.8	18.8
USAW90020	16.79 defghi	20.7	37.9	24.1	17.2
Road Trip	16.47 efghij	30.1	39.7	19.2	11.0
Lucille	16.46 fghij	23.1	38.5	29.2	9.2
Charismatic	16.32 ghij	29.0	35.5	22.6	12.9
Warrior	16.25 ghij	27.1	39.0	23.7	10.2
Cut Above	16.06 hijk	27.6	46.1	19.7	6.6
Sweet Dawn	15.87 hijkl	34.7	36.7	14.3	14.3
Secretariat	15.55 ijkl	27.9	46.5	16.3	9.3
Neptune	15.54 ijkl	32.8	34.4	26.2	6.6
Troubadour	15.14 jkl	48.6	28.4	9.5	13.5
SV0241WA	14.84 kl	42.4	39.1	14.1	4.3
Poseidon	14.54 l	40.9	40.9	16.7	1.5
Traveler	14.51 l	45.1	36.6	12.2	6.1
KB12023	14.31 l	46.3	37.3	13.4	3.0
<i>p-value</i>	<i><0.0001</i>				

Table 7. 2015 Seedless Watermelon Variety Trial: Varieties by Average Fruit Weight and Yield by Size Class

Variety	Mean Marketable I Weight (lbs)	Yield of Fruit in Each Size Class (Fruit/A)			
		60 Count 9.0-13.5 lbs	45 Count 13.6-17.5 lbs	36 Count 17.6-21.4 lbs	30 Count 21.5 lbs plus
SV0258WA	20.72 a	207	1037	1245	1867
Exclamation	20.49 a	207	1383	1383	2282
SV7112WA	18.89 b	830	1867	1175	1729
Maxima	18.86 b	830	1314	1659	1521
Sweet Polly	18.54 bc	761	968	1106	1383
Summer Breeze	18.33 bcd	346	1452	1314	899
7197	18.32 bcd	553	1106	1590	830
Premont	18.31 bcd	622	1659	1590	968
Savannah	18.31 bcd	691	1037	1314	691
Razorback	18.23 bcd	830	1867	1590	1175
Kingman	18.21 bcd	761	1383	1245	1106
Crunchy Red	18.15 bcd	761	1452	968	1106
Talca	18.13 bcd	761	1590	1452	1037
Joy Ride	17.98 bcd	899	2143	1452	1314
Wolverine	17.88 bcd	691	1867	1314	1106
Tri-X 313	17.84 bcde	691	1314	1037	830
7187	17.81 bcdef	691	1521	830	1037
Unbridled	17.78 bcdef	1037	1590	1383	1245
Captivation	17.66 bcdefg	761	1590	1452	899
Fascination	17.65 bcdefg	761	2074	1175	830
Sugar Fresh	17.27 cdefgh	1037	1936	1659	830
WDL0409	16.95 defgh	1245	2282	1521	761
Embassy	16.94 defgh	968	1521	1659	553
KB12142	16.90 defgh	1314	2143	1037	1037
USAW90020	16.79 defghi	830	1521	968	691
Road Trip	16.47 efghij	1521	2005	968	553
Lucille	16.46 fghij	1037	1729	1314	415
Charismatic	16.32 ghij	1867	2282	1452	830
Warrior	16.25 ghij	1106	1590	968	415
Cut Above	16.06 hijk	1452	2420	1037	346
Sweet Dawn	15.87 hijkl	1175	1245	484	484
Secretariat	15.55 ijkl	1659	2766	968	553
Neptune	15.54 ijkl	1383	1452	1106	277
Troubadour	15.14 jkl	2489	1452	484	691
SV0241WA	14.84 kl	2697	2489	899	277
Poseidon	14.54 l	1867	1867	761	69
Traveler	14.51 l	2558	2074	691	346
KB12023	14.31 l	2143	1729	622	138
<i>p-value</i>	<i><0.0001</i>				

Table 8. 2015 Seedless Watermelon Variety Trial: Varieties by Soluble Solid Content

Variety	% Soluble Solids
SV0258WA	11.8 a
Maxima	11.7 ab
KB12142	11.6 abc
Talca	11.6 abcd
Summer Breeze	11.5 abcde
Tri-X 313	11.5 abcdef
7187	11.4 abcdef
Unbridled	11.4 abcdefg
KB12023	11.4 abcdefg
SV7112WA	11.3 abcdefg
Embassy	11.3 abcdefg
7197	11.3 abcdefg
Poseidon	11.2 abcdefgh
Wolverine	11.2 abcdefgh
Warrior	11.2 abcdefghi
Road Trip	11.2 abcdefghi
Sugar Fresh	11.2 abcdefghi
USAW90020	11.2 bcdefghi
WDL0409	11.2 bcdefghi
Savannah	11.2 bcdefghi
Secretariat	11.1 cdefghij
Razorback	11.1 cdefghijk
Lucille	11.1 cdefghijk
Fascination	11.1 cdefghijk
Charismatic	11.1 cdefghijk
Sweet Polly	11.0 cdefghijk
Neptune	11.0 defghijk
Kingman	11.0 efghijk
SV0241WA	11.0 fghijk
Troubadour	11.0 fghijkl
Premont	10.9 fghijkl
Cut Above	10.9 ghijklm
Crunchy Red	10.7 hijklm
Captivation	10.7 ijklm
Sweet Dawn	10.6 jklm
Joy Ride	10.6 klm
Exclamation	10.4 lm
Traveler	10.3 m
<i>p-value</i>	<i><0.0001</i>

Table 9. 2015 Seedless Watermelon Variety Trial: Percent of Sampled Fruit with Hollow Heart and Percent with Hollow Heart Rendering Them Unmarketable

Variety	% Fruit with Hollow Heart	% Fruit with Unmarketable Hollow Heart
Exclamation	0	0
Captivation	0	0
7187	0	0
Joy Ride	0	0
Road Trip	0	0
Neptune	0	0
Traveler	0	0
Talca	0	0
SV7112WA	7	0
Maxima	7	0
Wolverine	7	0
Crunchy Red	7	0
Warrior	8	0
Troubadour	8	0
Summer Breeze	13	0
Unbridled	13	0
KB12142	13	0
7197	14	0
KB12023	14	0
Savannah	14	0
Razorback	15	0
Secretariat	20	0
Sugar Fresh	23	0
SV0241WA	27	0
SV0258WA	47	0
Sweet Dawn	7	7
Lucille	7	7
Fascination	20	7
Embassy	27	7
Poseidon	27	7
Charismatic	33	7
Premont	21	7
Kingman	15	8
WDL0409	31	8
Tri-X 313	8	8
Sweet Polly	8	8
Cut Above	40	13
USAW90020	60	13

Table 10. 2015 Seedless Watermelon Variety Trial: Percent of Sampled Fruit with Mature Seeds Rendering Them Unmarketable*




Variety	% Unmarketable Due to Mature Seeds
Cut Above	0
Tri-X 313	0
Captivation	0
WDL0409	0
Sugar Fresh	0
Sweet Polly	0
Warrior	0
7197	0
USAW90020	0
Joy Ride	0
Road Trip	0
SV0241WA	0
Summer Breeze	0
SV0258WA	0
SV7112WA	0
Poseidon	0
Kingman	0
KB12142	0
KB12023	0
Traveler	0
Troubadour	0
Lucille	0
Savannah	0
Maxima	0
Wolverine	0
Razorback	0
Charismatic	7
Unbridled	7
Talca	7
Exclamation	7
Crunchy Red	7
Fascination	13
Sweet Dawn	13
7187	13
Secretariat	13
Premont	14
Embassy	20
Neptune	42

* the USDA standard for seedless watermelons: “Watermelons of a size greater than ten (10) pounds may have 4 or fewer mature seeds, not to include pips/caplets, on the face of the melon which has been cut into four equal sections (one lengthwise cut and one crosswise cut)”

APPENDIX A:




Photographs of Varieties in the 2015 Seedless Watermelon Variety Trial

Varieties from the 2015 Seedless Watermelon Trial

	<p>Exclamation</p> <p>Marketable I Yield: 107,794 lbs/A (1) Marketable II Yield: 77,502 lbs/A (13) Mean Weight: 20.49 lbs (2) Soluble Solids: 10.4% (37) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 7%</p>
	<p>Syngenta</p> <p>SV7112WA</p> <p>Marketable I Yield: 106,047 lbs/A (2) Marketable II Yield: 82,550 lbs/A (10) Mean Weight: 18.89 lbs (3) Soluble Solids: 11.3% (10) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p>
	<p>Seminis</p> <p>Charismatic</p> <p>Marketable I Yield: 104,993 lbs/A (3) Marketable II Yield: 94,282 lbs/A (1) Mean Weight: 16.32 lbs (28) Soluble Solids: 11.1 % (21) Unmarketable Hollow Heart: 7% Unmarketable Seeded: 7%</p>
	<p>Sakata</p>


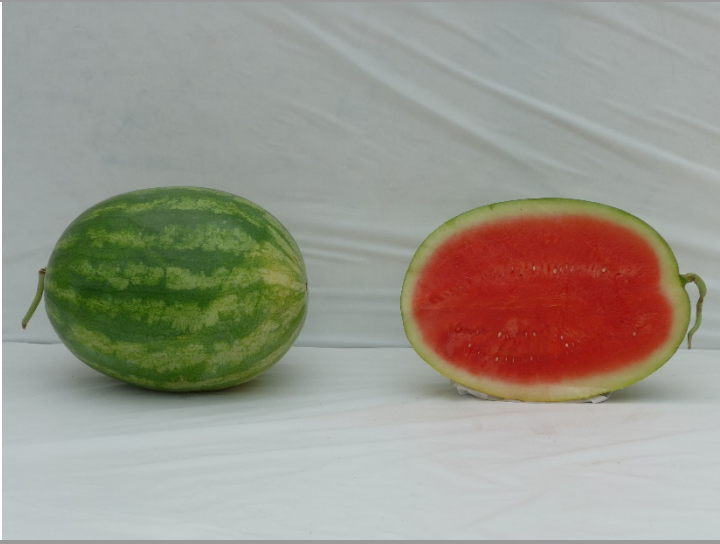

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*

	<p>Joy Ride</p> <p>Marketable I Yield: 104,053 lbs/A (4) Marketable II Yield: 87,489 lbs/A (5) Mean Weight: 17.98 lbs (14) Soluble Solids: 10.6% (35) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p>
	<p>Seminis</p> <p>Maxima</p> <p>Marketable I Yield: 100,508 lbs/A (5) Marketable II Yield: 74,039 lbs/A (19) Mean Weight: 18.86 lbs (4) Soluble Solids: 11.7% (2) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p>
	<p>Origene Seeds</p> <p>Razorback</p> <p>Marketable I Yield: 99,844 lbs/A (6) Marketable II Yield: 83,751 lbs/A (8) Mean Weight: 18.23 lbs (10) Soluble Solids: 11.1% (21) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p>
	<p>Highmark Seed Co</p>




*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*

	<p>WDL0409</p> <p>Marketable I Yield: 98,555 lbs/A (7) Marketable II Yield: 91,623 lbs/A (2) Mean Weight: 16.95 lbs (22) Soluble Solids: 11.2% (13) Unmarketable Hollow Heart: 8% Unmarketable Seeded: 0%</p> <p>Syngenta</p>
	<p>SV0241WA</p> <p>Marketable I Yield: 94,444 lbs/A (8) Marketable II Yield: 90,881 lbs/A (3) Mean Weight: 14.84 lbs (35) Soluble Solids: 11.0% (26) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p> <p>Seminis</p>
	<p>Sugar Fresh</p> <p>Marketable I Yield: 94,379 lbs/A (9) Marketable II Yield: 88,941 lbs/A (4) Mean Weight: 17.27 lbs (21) Soluble Solids: 11.2% (13) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p> <p>Siegers</p>




*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*

	<p>Unbridled</p> <p>Marketable I Yield: 93,444 lbs/A (10) Marketable II Yield: 84,531 lbs/A (6) Mean Weight: 17.78 lbs (18) Soluble Solids: 11.4% (7) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 7%</p> <p>Sakata</p>
	<p>KB12142</p> <p>Marketable I Yield: 93,243 lbs/A (11) Marketable II Yield: 82,713 lbs/A (9) Mean Weight: 16.90 lbs (24) Soluble Solids: 11.6% (3) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p> <p>K & B Development</p>
	<p>Secretariat</p> <p>Marketable I Yield: 92,787 lbs/A (12) Marketable II Yield: 84,035 lbs/A (7) Mean Weight: 15.55 lbs (32) Soluble Solids: 11.1% (21) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 13%</p> <p>Sakata</p>

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*

	<p>SV0258WA</p> <p>Marketable I Yield: 90,467 lbs/A (13) Marketable II Yield: 65,633 lbs/A (27) Mean Weight: 20.72 lbs (1) Soluble Solids: 11.8% (1) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p> <p>Seminis</p>
	<p>Wolverine</p> <p>Marketable I Yield: 89,269 lbs/A (14) Marketable II Yield: 74,948 lbs/A (17) Mean Weight: 17.88 lbs (15) Soluble Solids: 11.2% (13) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p> <p>Highmark Seed Co.</p>
	<p>Premont</p> <p>Marketable I Yield: 88,363 lbs/A (15) Marketable II Yield: 75,331 lbs/A (16) Mean Weight: 18.31 lbs (8) Soluble Solids: 10.9% (31) Unmarketable Hollow Heart: 7% Unmarketable Seeded: 14%</p> <p>Clifton Seed Co.</p>

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

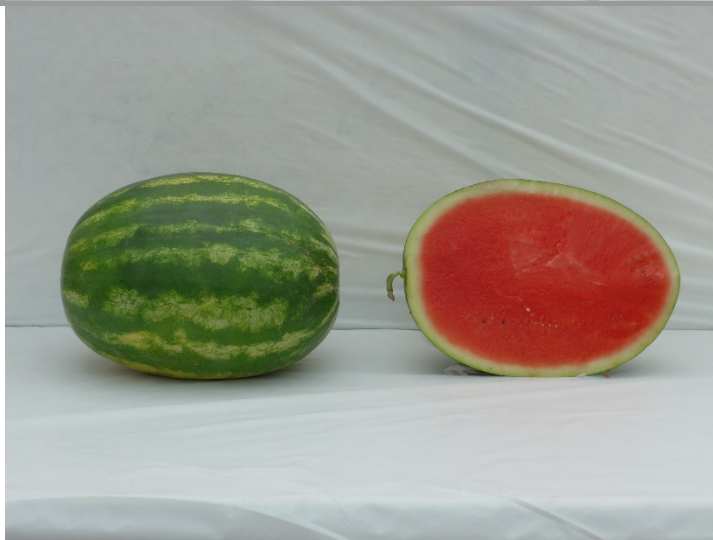
Varieties from the 2015 Seedless Watermelon Trial*



Talca

Marketable I Yield: 87,907 lbs/A (16)
 Marketable II Yield: 78,632 lbs/A (12)
 Mean Weight: 18.13 lbs (13)
 Soluble Solids: 11.6% (3)
 Unmarketable Hollow Heart: 0%
 Unmarketable Seeded: 7%

Origene Seeds



Fascination

Marketable I Yield: 85,267 lbs/A (17)
 Marketable II Yield: 70,921 lbs/A (20)
 Mean Weight: 17.65 lbs (20)
 Soluble Solids: 11.1% (21)
 Unmarketable Hollow Heart: 7%
 Unmarketable Seeded: 13%

Syngenta



Cut Above

Marketable I Yield: 84,136 lbs/A (18)
 Marketable II Yield: 80,380 lbs/A (11)
 Mean Weight: 16.06 lbs (30)
 Soluble Solids: 10.9% (31)
 Unmarketable Hollow Heart: 13%
 Unmarketable Seeded: 0%

Clifton Seed Co.

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*



Captivation

Marketable I Yield: 83,490 lbs/A (19)
Marketable II Yield: 74,730 lbs/A (18)
Mean Weight: 17.66 lbs (19)
Soluble Solids: 10.7% (33)
Unmarketable Hollow Heart: 0%
Unmarketable Seeded: 0%

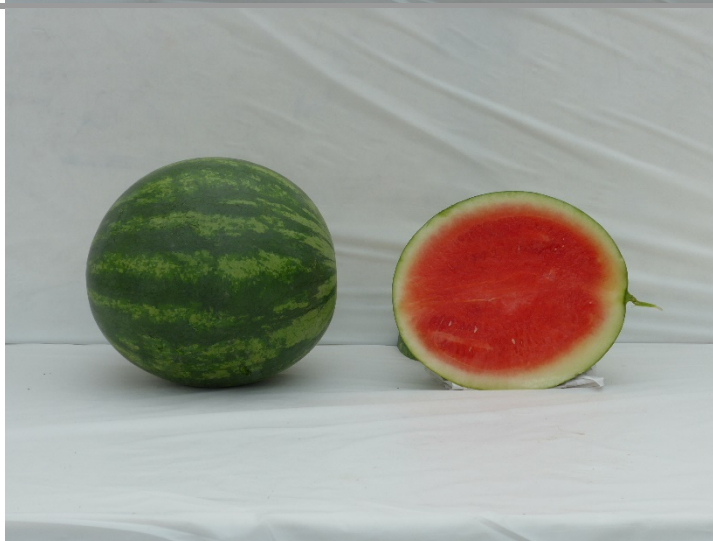
Syngenta



Road Trip

Marketable I Yield: 83,382 lbs/A (20)
Marketable II Yield: 70,750 lbs/A (21)
Mean Weight: 16.47 lbs (26)
Soluble Solids: 11.2% (13)
Unmarketable Hollow Heart: 0%
Unmarketable Seeded: 0%

Seminis



Traveler

Marketable I Yield: 82,213 lbs/A (21)
Marketable II Yield: 76,678 lbs/A (15)
Mean Weight: 14.51 lbs (37)
Soluble Solids: 10.3% (38)
Unmarketable Hollow Heart: 0%
Unmarketable Seeded: 0%

Harris Moran

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*



Kingman

Marketable I Yield: 82,053 lbs/A (22)
 Marketable II Yield: 62,317 lbs/A (32)
 Mean Weight: 18.21 lbs (11)
 Soluble Solids: 11.0% (26)
 Unmarketable Hollow Heart: 8%
 Unmarketable Seeded: 0%

Sakata



Embassy

Marketable I Yield: 79,322 lbs/A (23)
 Marketable II Yield: 77,411 lbs/A (14)
 Mean Weight: 16.94 lbs (23)
 Soluble Solids: 11.3% (10)
 Unmarketable Hollow Heart: 7%
 Unmarketable Seeded: 20%

Nunhems



Sweet Polly

Marketable I Yield: 77,934 lbs/A (24)
 Marketable II Yield: 61,852 lbs/A (33)
 Mean Weight: 18.54lbs (5)
 Soluble Solids: 11.0% (26)
 Unmarketable Hollow Heart: 8%
 Unmarketable Seeded: 0%

Siegers

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*



Crunchy Red

Marketable I Yield: 77,755 lbs/A (25)
 Marketable II Yield: 65,379 lbs/A (28)
 Mean Weight: 18.15 lbs (12)
 Soluble Solids: 10.7% (33)
 Unmarketable Hollow Heart: 0%
 Unmarketable Seeded: 7%

Harris Moran



Troubadour

Marketable I Yield: 77,506 lbs/A (26)
 Marketable II Yield: 70,044 lbs/A (22)
 Mean Weight: 15.14 lbs (34)
 Soluble Solids: 11.0% (26)
 Unmarketable Hollow Heart: 0%
 Unmarketable Seeded: 0%

Harris Moran



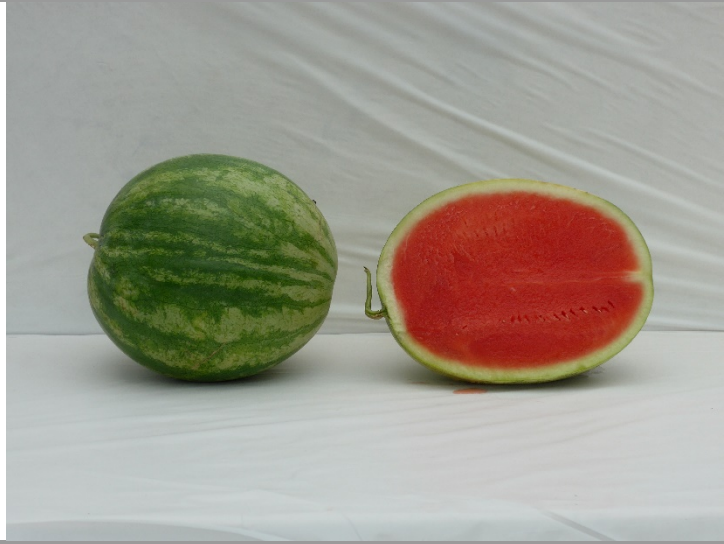


7197

Marketable I Yield: 74,983 lbs/A (27)
 Marketable II Yield: 63,981 lbs/A (30)
 Mean Weight: 18.32 lbs (7)
 Soluble Solids: 11.3% (10)
 Unmarketable Hollow Heart: 0%
 Unmarketable Seeded: 0%

Nunhems

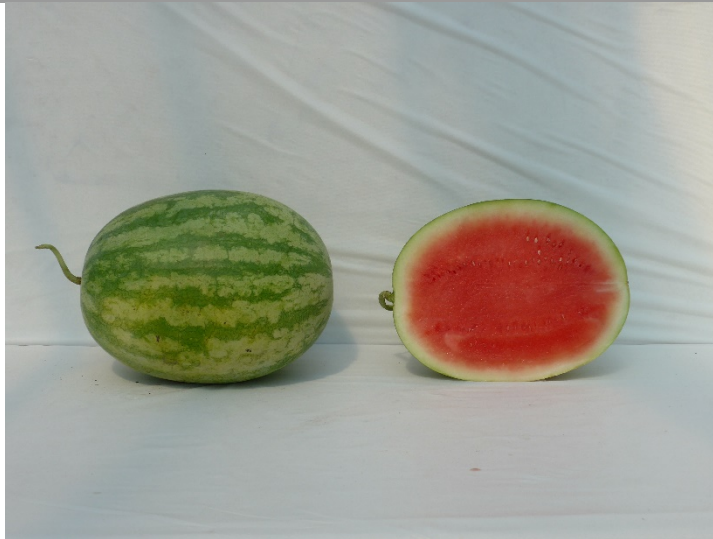
*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*

	<p>Lucille</p> <p>Marketable I Yield: 74,151 lbs/A (28) Marketable II Yield: 67,284 lbs/A (23) Mean Weight: 16.46 lbs (27) Soluble Solids: 11.1% (21) Unmarketable Hollow Heart: 7% Unmarketable Seeded: 0%</p>
	<p>Origene Seeds</p> <p>Summer Breeze</p> <p>Marketable I Yield: 73,747 lbs/A (29) Marketable II Yield: 62,546 lbs/A (31) Mean Weight: 18.33 lbs (6) Soluble Solids: 11.5% (5) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p>
	<p>Seminis</p> <p>7187</p> <p>Marketable I Yield: 72,565 lbs/A (30) Marketable II Yield: 61,691 lbs/A (34) Mean Weight: 17.81 lbs (17) Soluble Solids: 11.4% (7) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 13%</p> <p>Nunhems</p>

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*



Tri-X 313

Marketable I Yield: 68,929 lbs/A (31)
 Marketable II Yield: 58,052 lbs/A (37)
 Mean Weight: 17.84 lbs (16)
 Soluble Solids: 11.5% (5)
 Unmarketable Hollow Heart: 8%
 Unmarketable Seeded: 0%

Syngenta



Savannah

Marketable I Yield: 68,171 lbs/A (32)
 Marketable II Yield: 58,763 lbs/A (36)
 Mean Weight: 18.31 lbs (9)
 Soluble Solids: 11.2% (13)
 Unmarketable Hollow Heart: 0%
 Unmarketable Seeded: 0%

Origene Seeds






USA W90020

Marketable I Yield: 67,437 lbs/A (33)
 Marketable II Yield: 64,025 lbs/A (29)
 Mean Weight: 16.79 lbs (25)
 Soluble Solids: 11.2% (13)
 Unmarketable Hollow Heart: 13%
 Unmarketable Seeded: 0%

US Agriseeds

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*

	<p>Warrior</p> <p>Marketable I Yield: 66,416 lbs/A (34) Marketable II Yield: 59,437 lbs/A (35) Mean Weight: 16.25 lbs (29) Soluble Solids: 11.2% (13) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p>
	<p>Nunhems</p> <p>Poseidon</p> <p>Marketable I Yield: 66,168 lbs/A (35) Marketable II Yield: 66,168 lbs/A (24) Mean Weight: 14.54 lbs (36) Soluble Solids: 11.2% (13) Unmarketable Hollow Heart: 7% Unmarketable Seeded: 0%</p>
	<p>Seedway</p> <p>KB12023</p> <p>Marketable I Yield: 65,955 lbs/A (36) Marketable II Yield: 65,955 lbs/A (25) Mean Weight: 14.31 lbs (38) Soluble Solids: 11.4% (7) Unmarketable Hollow Heart: 0% Unmarketable Seeded: 0%</p> <p>K & B Development</p>

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

Varieties from the 2015 Seedless Watermelon Trial*



Neptune

Marketable I Yield: 65,805 lbs/A (37)
Marketable II Yield: 65,805 lbs/A (26)
Mean Weight: 15.54 lbs (33)
Soluble Solids: 11.0% (26)
Unmarketable Hollow Heart: 0%
Unmarketable Seeded: 42%

Seedway



Sweet Dawn

Marketable I Yield: 53,749 lbs/A (38)
Marketable II Yield: 48,240 lbs/A (38)
Mean Weight: 15.87 lbs (31)
Soluble Solids: 10.6% (35)
Unmarketable Hollow Heart: 7%
Unmarketable Seeded: 13%

Syngenta

*Numbers in parenthesis are the rank of the variety for this characteristic out of the 38 varieties.

APPENDIX B:
Weather Summary for the 2015 Watermelon Variety Trial
May 19th (transplanting) – August 24th (final harvest)

Appendix B: Weather Summary for the 2015 Watermelon Variety Trial
May 19th (transplanting) – September 24th (final harvest)

DAT	Date	Max Temp °F	Min Temp °F	Rainfall (in.)	Accumulated Rainfall (in.)
0	19-May	83.0	66.4	0.48	0.48
1	20-May	72.4	53.9	0.00	0.48
2	21-May	55.9	49.1	0.79	1.27
3	22-May	72.2	48.1	0.00	1.27
4	23-May	70.0	48.2	0.00	1.27
5	24-May	78.3	48.3	0.00	1.27
6	25-May	81.0	59.2	0.00	1.27
7	26-May	84.6	62.7	0.00	1.27
8	27-May	86.3	68.4	0.00	1.27
9	28-May	85.1	68.2	0.00	1.27
10	29-May	83.6	65.7	0.00	1.27
11	30-May	84.9	65.9	0.00	1.27
12	31-May	87.5	67.1	0.00	1.27
13	1-Jun	88.7	69.3	0.27	1.54
14	2-Jun	69.5	56.2	0.65	2.19
15	3-Jun	58.4	55.2	1.10	3.29
16	4-Jun	60.4	57.0	0.14	3.43
17	5-Jun	65.9	57.6	0.01	3.44
18	6-Jun	76.2	58.2	0.04	3.48
19	7-Jun	74.4	53.9	0.00	3.48
20	8-Jun	83.0	57.4	0.00	3.48
21	9-Jun	85.3	69.1	0.02	3.50
22	10-Jun	83.0	61.2	0.00	3.50
23	11-Jun	91.3	64.6	0.00	3.50
24	12-Jun	92.4	72.8	0.00	3.50
25	13-Jun	88.7	74.8	0.00	3.50
26	14-Jun	87.9	72.0	0.14	3.64
27	15-Jun	88.1	72.9	0.00	3.64
28	16-Jun	92.8	73.1	0.01	3.65
29	17-Jun	80.4	66.1	0.00	3.65
30	18-Jun	85.8	68.5	0.59	4.24
31	19-Jun	86.3	69.5	0.10	4.34
32	20-Jun	87.4	71.7	0.14	4.48
33	21-Jun	88.4	71.0	0.97	5.45
34	22-Jun	88.5	72.3	0.00	5.45
35	23-Jun	93.1	70.4	0.41	5.86
36	24-Jun	81.5	65.7	0.00	5.86
37	25-Jun	84.5	61.4	0.18	6.04
38	26-Jun	75.9	64.7	0.65	6.69
39	27-Jun	75.8	63.4	0.35	7.04
40	28-Jun	79.8	67.6	0.11	7.15
41	29-Jun	80.9	60.9	0.00	7.15
42	30-Jun	85.5	65.0	0.02	7.17
43	1-Jul	85.4	68.3	0.00	7.17
44	2-Jul	73.3	65.3	0.89	8.06
45	3-Jul	80.7	60.6	0.00	8.06
46	4-Jul	80.0	68.7	0.04	8.10
47	5-Jul	83.6	66.1	0.00	8.10
48	6-Jul	87.8	70.8	0.10	8.20

DAT	Date	Max Temp °F	Min Temp °F	Rainfall (in.)	Accumulated Rainfall (in.)
49	7-Jul	87.9	73.6	0.00	8.20
50	8-Jul	88.3	74.6	0.06	8.26
51	9-Jul	89.1	73.1	0.00	8.26
52	10-Jul	83.8	70.4	0.00	8.26
53	11-Jul	80.8	66.4	0.02	8.28
54	12-Jul	84.6	62.2	0.00	8.28
55	13-Jul	84.3	65.6	0.07	8.35
56	14-Jul	83.8	71.7	0.13	8.48
57	15-Jul	78.9	71.1	0.03	8.51
58	16-Jul	77.8	63.2	0.00	8.51
59	17-Jul	82.3	58.6	0.00	8.51
60	18-Jul	87.8	67.9	0.00	8.51
61	19-Jul	93.2	71.5	0.00	8.51
62	20-Jul	94.3	76.4	0.00	8.51
63	21-Jul	89.6	74.7	0.39	8.90
64	22-Jul	84.1	67.5	0.00	8.90
65	23-Jul	82.5	63.3	0.00	8.90
66	24-Jul	84.2	57.9	0.00	8.90
67	25-Jul	86.3	58.7	0.00	8.90
68	26-Jul	87.6	66.0	0.00	8.90
69	27-Jul	84.2	69.4	1.17	10.07
70	28-Jul	91.1	69.3	0.03	10.10
71	29-Jul	87.6	69.6	0.00	10.10
72	30-Jul	89.2	74.0	0.01	10.11
73	31-Jul	88.2	68.5	0.01	10.12
74	1-Aug	90.3	66.0	0.15	10.27
75	2-Aug	88.3	65.9	0.00	10.27
76	3-Aug	89.1	64.9	0.00	10.27
77	4-Aug	90.8	71.0	0.79	11.06
78	5-Aug	87.6	67.4	0.64	11.70
79	6-Aug	82.2	66.8	0.00	11.70
80	7-Aug	74.8	69.0	0.04	11.74
81	8-Aug	76.6	62.5	0.00	11.74
82	9-Aug	83.3	59.7	0.00	11.74
83	10-Aug	75.8	63.1	0.02	11.76
84	11-Aug	84.5	68.7	1.17	12.93
85	12-Aug	82.5	65.3	0.06	12.99
86	13-Aug	82.1	61.2	0.00	12.99
87	14-Aug	84.7	58.1	0.00	12.99
88	15-Aug	85.7	60.0	0.00	12.99
89	16-Aug	87.6	61.6	0.00	12.99
90	17-Aug	89.4	61.6	0.00	12.99
91	18-Aug	86.7	66.2	0.00	12.99
92	19-Aug	86.1	71.1	0.00	12.99
93	20-Aug	84.6	72.9	0.31	13.30
94	21-Aug	85.3	70.2	0.07	13.37
95	22-Aug	82.9	61.6	0.00	13.37
96	23-Aug	83.6	56.2	0.00	13.37
97	24-Aug	87.3	60.3	0.00	13.37