

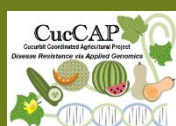
# 2021 Triploid Standard and Mini Watermelon Cultigen Evaluation Studies



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Horticulture Series No. 238

**NC STATE**

**EXTENSION**



National Institute of Food and Agriculture  
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2021 North Carolina  
Triploid Standard & Mini-Size Watermelon  
Cultigen Evaluation Studies

Hort. Series # 238

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General Cultural Practices

These watermelon studies were grown on black plastic mulch and fertigated with drip tube. Pesticides used on all plots were chemicals labeled for that crop, (2021 North Carolina Agricultural Chemicals Manual, <https://content.ces.ncsu.edu/north-carolina-agricultural-chemicals-manual>).

Acknowledgments

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Disclaimer

This publication presents data from the triploid standard size and mini watermelon cultigen evaluation studies conducted during 2021. Information in this report is believed to be reliable but should **not** be relied upon as a sole source of information. Limited accompanying detail is included but excludes some pertinent information, which may aid interpretation.

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## Watermelon Cultural Practices for 2021 Cultigen Studies, Horticultural Crops Research Station, Clinton, NC

### Introduction

Growing conditions for the 2021 watermelon studies were generally favorable for the first 8 weeks after planting, then conditions were very wet for the following 6 weeks. North Carolina showed an increase in watermelon production from 2019 to 2020. In 2019, acreage was reported at 7,800 acres. In 2020, acreage was reported at 9,000 acres. North Carolina ranks 7th among watermelon producing states and represents 9% of the U.S. acreage which totaled 100,000 acres in 2020. This translates into an economic value of \$34 million to North Carolina. North Carolina also saw an increase in watermelon prices; \$14.10 per cwt in 2019 to \$15.80 per cwt in 2020. (North Carolina Agricultural Statistics) (USDA Vegetables 2020 Summary).

### Materials and Methods

#### *Sowing and Field Preparations – Standard and Mini Size Watermelon Studies*

Once all seeds were received from participating companies, they were planted into 72 cell Poly trays to grow transplants (Hummert Int.; Earth City, MO). Seeds of standard and mini size cultigens were sown on 3 April 2021. The trays of sown seeds were placed in a germination room for about one day. Temperature in the germination room averaged about 85°F and moisture was elevated to around 70%. The planting medium used was a “fine germinating mix”, a commercial soilless mix (SunGro, Agawam, MA). Approximately 3 weeks after seeding, transplants were placed in a “hardening” greenhouse for approximately one week before being transplanted in the field. Telone II (12 gal/ac) was applied to the entire study area on 9 March 2021. Roundup Original Max (1 qt/ac), K-Mag fertilizer (0-0-22-22-11Mg) at 200 lb/ac, and NPK fertilizer (10-10-10-0) at 500 lb/ac was applied pre-plant 8 April 2021. K-Mag fertilizer (0-0-22-22-11Mg) at 200 lb/ac was also applied after transplant on 30 April 2021. Black polyethylene plastic (1.25 mil thick, high density plastic film, 60 inches wide; TriEst Ag Group, Inc., Clinton, NC) was laid on 15 April 2021. Sandea (.75 oz/ac) and Strategy (3 pt/ac) were applied to row middles 26 April 2021.

#### *Planting – Standard Size Watermelon Study*

Standard size triploid watermelon plants were established in the field on 29 April 2021. Plot size for standard size triploid watermelons was 1 row, 10 plants per plot, 25 feet long with alleys of 10 feet between plots. In most cases, plots with missing plants were replanted approximately 3 days after planting to achieve 100% plant stand. ‘SP-7’ and ‘Wild Card Plus’ diploid pollenizer plants were used in the 2021 growing season. Alternate plantings of ‘SP-7’ and ‘Wild Card Plus’ (4 plants/plot) were used as the pollenizer plants in each plot within the study. ‘SP-7’ pollenizer plants were planted after triploid plants 1 and 7 while ‘Wild Card Plus’ pollenizer plants were planted after triploid plants 4 and 10 in each plot. Row middles were 10 feet and in-row spacing was 2.5 feet for the standard size triploid watermelon study.

### *Fertilizer and Pest Management – Standard and Mini Size Watermelon Studies*

A total of 50 lb/ac N, 50 lb/ac P, 94 lb/ac K, 44 lb/ac S, and 44 lb/ac Mg were all applied broadcast (pre-plant) to the entire study area. Drip tape (NETAFIM, 12 in spacing, 0.24 gph; NETAFIM, Tel Aviv, Israel) was installed beneath the plastic mulch and was utilized to fertigate the crop throughout the growing season. Liquid fertilizer with 4-0-8 analysis was initially applied through drip tape fertigation on 5 May 2021 and similarly on the following dates: 11, 17, 19, 25, and 27 May 2021; 1, 7, 9, 14, 17, 22, 23, and 28 June 2021; 13, 16, and 26 July 2021. A total of 91 lb/ac N, 0 lb/ac P and 183 lb/ac K were applied via fertigation throughout the growing season. Cumulative totals of applied fertilizer for the growing season were: 141 lb/ac N, 50 lb/ac P, 321 lb/ac K, 88 lb/ac S and 44 lb/ac Mg.

Fungicides were initially applied on 28 May 2021 and similarly on the following dates: 9, 18 and 25 June 2021; 1, 16, and 30 July 2021. The following fungicides were rotated to avoid potential development of resistance from diseases; Bravo (1 qt/ac), Copper (1 lb/ac), Manzate (3 lb/ac), Presidio (4 oz/ac), Quadris (14 oz/ac and 15 oz/ac), Ranman (2.5 oz/ac), Luna Experience (8 oz/ac), Proline (4 oz/ac) and Tanos (6 oz/ac).

Insecticides Carbaryl (1 qt/ac) and Asana (8 oz/ac) were rotated and applied as a preventive measure on the following dates: 13, 19, and 28 May 2021; 18 and 25 June 2021. Asana (8 oz/ac) applications continued 1, 16 and 30 July 2021. Admire (10 oz/ac) was applied with the first application of Asana (8 oz/ac) on 13 May 2021. Insecticide products were sprayed in rotation to avoid potential development of insect resistance.

Miticide Portal (1 qt/ac) was applied on 5 May 2021. Applications of Gramoxone (1 qt/ac) plus crop oil (1 qt/ac) was spot sprayed on weed escapes on 20 May and 17 June 2021.

### *Harvest and Yield Data Collection – Standard Size Watermelon Study*

Standard size triploid watermelon harvests took place on: 13, 20, and 28 July 2021. For the triploid standard size watermelon test, fruits were placed in the following categories: < 9 lb, 9 – 13.4 lb, 13.5 – 17.4 lb, 17.5 – 21.4 lb, and ≥ 21.5 lb. Fruits were considered marketable if they weighed 9.0 lb or more. Fruits are often commercially marketed by number or count per bin with 9.0-13.5 lb fruit termed 60-count, 13.6 – 17.5 lb fruit termed 45 count, 17.6 – 21.4 lb fruit termed 36-count, and fruit 21.5 lb or larger termed 30-count. We used these weight designations to categorize the harvested fruits in this study. Most of the standard size triploid watermelon fruit harvested in this study ranged between 17.5 and 21.4 lb.

### *Planting, Harvest and Yield Data Collection – Mini Sized Watermelon Study*

The mini triploid watermelon transplants were established in the field on 29 April 2021. Plot size for mini triploid size watermelons was 1 row, 10 plants per plot, 15 feet long with alleys of 9 feet between plots. Alternate plantings of ‘SP-7’ and ‘Wild Card Plus’ (4 plants/plot) were used as the pollenizer plants in this study. ‘SP-7’ pollenizer plants were planted after triploid plants 1 and 5 while ‘Wild Card Plus’ pollenizer plants were planted after triploid plants 3 and 7. Row middles were 10 feet and in-row spacing was 1.5 feet for the mini size triploid watermelons.

Mini triploid watermelon harvests occurred on: 15, 22, and 29 July 2021 and 6 August 2021. For the 4 mini triploid watermelon harvests, fruits were placed in the following categories: < 3 lb, 3 – 7 lb, 7.1 – 9 lb, and  $\geq$  9.1 lb. Most of the mini size triploid watermelon fruit harvested in this study ranged between 3 and 7 lb.

### *Quality Evaluations – Standard and Mini Size Watermelon Studies*

Evaluations of each melon entry included: yield, fruit size, fruit shape, soluble solids, and interior flesh firmness. Soluble solids were measured by cutting a piece of fruit from the center of the fruit and squeezing out the fruit juice onto the digital refractometer (Atago, Vernon Hills, IL). Flesh firmness was taken by using a Penetrometer FT 011 with a 7/16” plunger tip, (QA Supplies LLC, Norfolk, VA.), and was recorded in pounds. Samples were obtained by cutting the center of the fruit from the stem to blossom end. Pressure was then taken in five areas of the fruit: stem end, top side, ground spot side, blossom end, and center. The reported measures on flesh firmness are an average of the five sample areas and are an average value taken for 3 fruit per plot or 12 fruits per cultigen. Pressure was not taken on fruit with hollow heart. Hard seed in triploid fruit was determined according to the USDA standards. Fruits were cut longitudinally in half, and then these halves were cut laterally. The number of hard seeds exposed on the cut surface were counted and recorded. Most of the quality measurements were taken at the first and second harvests. Additional internal evaluations included hollow heart incidence and severity, flesh color, seed trace, hard seed population, and rind thickness.

## **Results**

Overall fruit yield and quality were very good for the duration of the study. It should be noted that precipitation during harvests was high at the Horticultural Crops Research Station in Clinton, NC; 12.46 inches in July of 2021 (State Climate Office of North Carolina, Station: Horticultural Crops Research Stn (CLIN)). These high moisture conditions caused the fruit in later harvests to be more susceptible to rot. Rots comprised 4% of fruit in the cumulative standard triploid watermelon harvests and 3% of fruit in the cumulative mini triploid watermelon harvest. Bird pecks were also an issue in the early harvests. There was incidence of fusarium wilt caused by *Fusarium oxysporum* f.sp. *niveum* in some of the watermelon plots, however, the impact on the fruit and vines was generally negligible. A representative photograph of each cultigen entry is shown for the standard size cultigens (Figure 1) and mini size cultigens (Figure 2), the exception being ‘Talca’.

### *Standard Size Watermelon Study – Yield and Size*

The highest yielding standard size triploid cultigens for marketable fruit in the early harvest (1) were Sweet Gem (258 cwt/ac), Dark Knight (244 cwt/ac), and Excursion (220 cwt/ac) (Table 1). The average marketable yield for the early harvest (1) was 129 cwt/ac. There was a lot of variability between plots. At a significance level 0.05, the LSD was 189 for marketable fruit weights. Talca was the highest yielding standard size triploid cultigen for marketable fruit in the late harvest (3) (425 cwt/ac) (Table 2). The second highest yielding was Embassy (321 cwt/ac) followed by Lajoya (307 cwt/ac). The average marketable yield for the late harvest (3) was 228

cwt/ac. Talca was the highest yielding cultigen in the late harvest (3) (425 cwt/ac) (Table 2) but the lowest yielding in the early harvest (1) (32 cwt/ac) (Table 1). Dark Knight was the second highest yielding in the early harvest (1) (244 cwt/ac) (Table 1) but the lowest yielding in the late harvest (3) (91 cwt/ac) (Table 2).

Marketable yields across all three standard size triploid harvests were greatest for Summerlicious (854 cwt/ac), Shoreline (800 cwt/ac), and Sierra Nevada (756 cwt/ac) (Table 3). The average marketable yield across all harvests was 676 cwt/ac. Of the WDL lines, WDL 8415 (Valor) had an above average marketable yield (710 cwt/ac).

The standard size triploid cultigens with the highest average fruit weight in the early harvest (1) were WDL 9450 (24.8 lb/fruit), Sierra Madre (24.6 lb/fruit), and Sierra Nevada (23.5 lb/fruit) (Table 4). The average fruit size for the early harvest (1) was 19.8 lb/fruit. The standard size triploid cultigens with the highest average fruit weight in the late harvest (3) were Sierra Madre (20.3 lb/fruit), Scarlet Crisp (19.9 lb/fruit), and Sierra Nevada (19.7 lb/fruit) (Table 5). The average fruit size for the late harvest (3) was 16.6 lb/fruit, which was 3.2 lb/fruit less than the early harvest (1) (Table 4).

Average fruit weight across the three standard size triploid harvests were greatest for Sierra Madre (23.0 lb/fruit), Scarlet Crisp (22.8 lb/fruit), and Sierra Nevada (22.3 lb/fruit) (Table 6). The cultigens with the lowest average fruit weight across all harvests were Lajoya (14.8 lb/fruit), SVWA 6576 (Jet Ski) (15.7 lb/fruit), and Captivation (16.5 lb/fruit). The average fruit weight for all cultigens across all three harvests was 18.5 lb/fruit. It is worth noting that Sierra Madre and Sierra Nevada both consistently produced large fruit in the early (Table 4) and late (Table 5) harvests.

The standard size triploid cultigens with the highest fruit number per plant in the early harvest (1) were Dark Knight (0.8 fruit/plant), Sweet Gem (0.8 fruit/plant), and Red Amber (0.6 fruit/plant) (Table 7). The average fruit number per plant for the early harvest (1) was 0.4 fruit/plant. The standard size triploid cultigens with the highest fruit number per plant in the late harvest (3) were Talca (1.5 fruit/plant), Lajoya (1.4 fruit/plant), E26C.00124 (Destination) (1.1 fruit/plant), and ORS.6132C (1.1 fruit/plant) (Table 8). The average fruit number per plant for the late harvest (3) was 0.8 fruit/plant.

Fruit number per plant across all standard size triploid harvests were the greatest for Lajoya (2.7 fruit/plant), Summerlicious (2.7 fruit/plant), ORS.6132C (2.5 fruit/plant), and Talca (2.5 fruit/plant) (Table 9). The average fruit number per plant across all harvest was 2.1 fruit/plant.

The standard size triploid cultigens with the highest total marketable fruit number per acre were Summerlicious (4574 fruit/ac), ORS.6132C (4269 fruit/ac), and Lajoya (4225 fruit/ac) (Table 9). The standard size triploid cultigens with the lowest total marketable fruit number per acre were Excursion (2919 fruit/ac), WDL 9454 (2962 fruit/ac), WDL 9450 (2962 fruit/ac), and Sierra Madre (3006 fruit/ac). Average marketable fruit per acre was 97% across all entries for the season. The number of bins in the 60-count (9.0 – 13.5 lb), 45-count (13.6 – 17.5 lb), 35-count (17.5 – 21.4 lb), and 30-count ( $\geq 21.5$  lb) bins are provided for harvest 1, harvest 2, harvest 3, and cumulatively for harvests 1, 2, and 3, respectively (Tables 4, 5, 6).

### *Standard Size Watermelon Study – Quality*

Interior fruit quality measurements were taken across all standard size triploid harvests (most measurements were taken in the first or second harvest) and included: soluble solids, flesh color, seed trace size, length and diameter, rind thickness, flesh firmness, and hollow heart rating. The standard size triploid cultigens with the highest Brix readings were Talca (12.8), SVWA 6576 (Jet Ski) (12.6), and 7197 (12.5) (Table 10). The cultigen with the lowest Brix readings was Scarlet Crisp (10.9). The average Brix reading across all standard triploid cultigens was 12.0. The standard size triploid cultigens with the highest flesh firmness ratings were Shoreline (4.8), Scarlet Crisp (4.4), and WDL 8425 (3.8). The standard size triploid cultigens with lowest flesh firmness ratings were Sweet Gem (2.3), Dark Knight (2.5), Power House (2.5), and WDL 8415 (Valor) (2.5). The average flesh firmness rating across all standard size triploid cultigens was 3.0. There was a low incidence of hollow heart across all cultigens with 91% rating HH0 (no crack in flesh).

### *Mini Size Watermelon Study – Yield and Size*

The highest yielding mini size triploid cultigens for marketable fruit weight in the early season harvests (1-2) were Sugar Bomb (462 cwt/ac), 50035 (393 cwt/ac), and Petite Perfection (350 cwt/ac) (Table 11). The average marketable yield for the early harvests (1-2) was 288 cwt/ac. Several of the cultigens had fruit that exceeded marketable size (> 9.1 lb). The highest yielding mini size triploid cultigens for marketable fruit in the mid-late season (3-4) were Sirius (166 cwt/ac), 50035 (157 cwt/ac), and Extazy (112 cwt/ac) (Table 12). The average marketable yield for the mid-late harvest (3-4) was 103 cwt/ac. Marketable yields for all mini size triploid cultigens were higher in the early season harvests (1-2) (288 cwt/ac) (Table 11) versus the mid-late season harvests (3-4) (103 cwt/ac) (Table 12).

Marketable yields across all (4 total) mini size triploid harvests were greatest for Sugar Bomb (567 cwt/ac), 50035 (550 cwt/ac), and Petite Perfection (456 cwt/ac) (Table 13). The mini size triploid cultigens with the lowest marketable yield across all harvests were ORS 7220 (242 cwt/ac), ORS 70368 (256 cwt/ac), and ORS 70383 (277 cwt/ac). The average marketable yield across all harvests was 391 cwt/ac. The majority of fruit were in the 3.1-7.0 lb category, with an average of 240 cwt/ac in this category across all harvests.

The mini size triploid cultigens with the highest average marketable fruit weight in the early season harvests (1-2) were ORS 7220 (7.2 lb), Extazy (7.0 lb), and Sugar Rush (7.0 lb) (Table 11). The average marketable fruit weight in the early harvests (1-2) was 6.6 lb. The mini size triploid cultigens with the highest average marketable fruit weight in the mid-late season harvests (3-4) were ORS 70368 (6.4 lb), Sirius (5.3 lb), and ORS 7220 (5.2 lb) (Table 12). The average marketable fruit weight in the mid-late season harvests (3-4) was 5 lb.

The mini size triploid cultigens with the highest average marketable fruit weight across all harvests were ORS 7220 (6.7 lb), ORS 70368 (6.6 lb), and Excite (6.3 lb) (Table 13). The cultigens with the lowest average marketable fruit weight were Sugar Bomb (5.3 lb), Petite Perfection (5.4 lb), and 50035 (5.8 lb). The average marketable fruit weight across all harvests



was 6 lb. In general, fruit size was large for the 2021 growing season.

The mini size triploid cultigens with the highest fruit number per plant in the early season harvests (1-2) (Table 14) and across all four harvests (Table 15) were Sugar Bomb, Excite, and Preakness. The average fruit number per plant for the early season harvests (1-2) was 2.3 fruit/plant (Table 14) while the average fruit number per plant across all harvests (4) was 3 fruit/plant (Table 15). The mini size triploid cultigens with the highest fruit number per plant in the mid-late season harvests (3-4) were Sugar Bomb (1.6 fruit/plant), 50035 (1.3 fruit/plant), and Sirius (1.1 fruit/plant) (Table 16). The average fruit number per plant for the mid-late season harvests (3-4) was 1.0 fruit/plant.

The mini size triploid cultigens with the highest total marketable fruit number per acre were Sirius (10600 fruit/ac), 50035 (9511 fruit/ac), and Petite Perfection (8494 fruit/ac) (Table 15). Average marketable fruit per acre was 72% across all entries for all four harvests. The main reason that fruit were not marketable was because of large fruit size ( $\geq 9.1$  lb).

Percent of fruit weight per acre by size category are provided for early harvests (1-2), mid-late season harvests (3-4), and cumulative harvests (1-4), respectively (Tables 17, 18, 19).

Percent of fruit number by size category are provided for early harvests (1-2), mid-late season harvests (3-4), and cumulative harvests (1-4), respectively (Tables 20, 21, 22).

Percent of total fruit weight and number per acre for harvests 1 and 2 and harvests 3 and 4 are provided in (Tables 23 and 24), respectively. Most mini size triploid fruit were harvested in the first two harvests.

### *Mini Size Watermelon Study – Quality*

Interior fruit quality measurements were taken across all mini triploid harvests (nearly all measurements were taken in the first harvest) and included: soluble solids, flesh color, seed trace size, length and diameter, rind thickness, flesh firmness, and hollow heart rating. The mini size triploid cultigens with the highest Brix readings were Sirius (12.7), Petite Perfection (12.5), and Extazy (12.2) (Table 25). The mini size triploid cultigen with the lowest Brix reading was Sugar Bomb (10.4). The average Brix reading across all cultigens was 11.8. The mini size triploid cultigen with the highest flesh firmness rating was ORS 70383 (4.0). The mini size triploid cultigen with the lowest flesh firmness rating was Preakness (2.7). The average flesh firmness rating across all cultigens was 3.3. There was a low incidence of hollow heart across all cultigens with 88.9% rating HH0 (no crack in flesh).

### **Summary**

Overall, yields and fruit quality in this study were excellent. Good growing conditions and minimal pest pressure were important factors that contributed to these results.

### **Financial Support**

In addition to seed companies this research was supported by the College of Life and Agricultural Sciences, North Carolina Agriculture Research, and the North Carolina Cooperative Extension Services. This work was in part supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2020-51181-32139. CucCAP (<https://cuccap.org/>).

**Figure 1.** Standard size triploid watermelon photographs. Clinton, NC 2021.





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**Figure 1.** Standard size triploid watermelon photographs. Clinton, NC 2021.



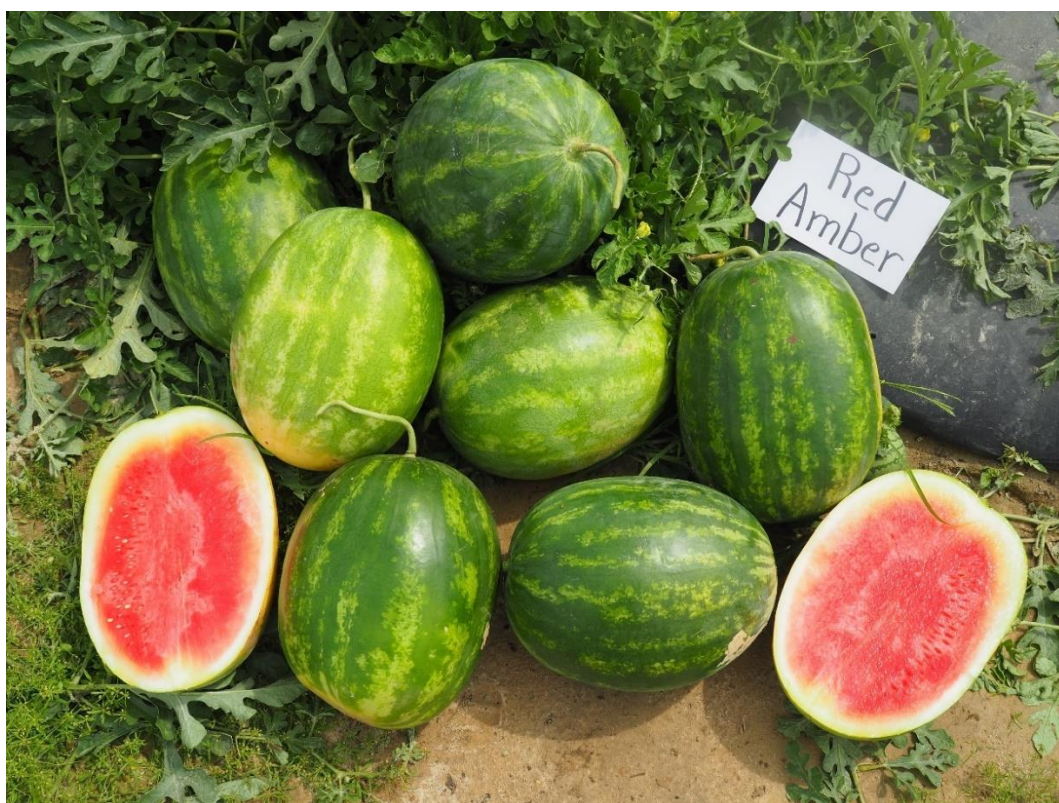


**Figure 1.** Standard size triploid watermelon photographs. Clinton, NC 2021.





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**Figure 1.** Standard size triploid watermelon photographs. Clinton, NC 2021.





**Figure 1.** Standard size triploid watermelon photographs. Clinton, NC 2021.



Photograph unavailable for Talca



**Table 1. Standard size triploid watermelon cultigen study. Fruit weight (cwt)**  
per acre by various weight classes<sup>1</sup> for **early harvest (1)**. Clinton, NC 2021.

<b>Cultigen</b>	<b>cwt (x100) by size</b>					<b>Total Fruit cwt / ac</b>	<b>Mkt. Fruit cwt / ac<sup>2</sup></b>
	<b>&lt; 9</b>	<b>9 - 13.4</b>	<b>13.5 - 17.4</b>	<b>17.5 - 21.4</b>	<b>≥ 21.5</b>		
<b>Captivation</b>	0	17	71	50	11	149	149
<b>Dark Knight</b>	0	0	71	113	51	244	244
<b>E26C.00124 (Destination)</b>	0	6	14	34	30	85	85
<b>E26C.00139 (Rio Grande)</b>	0	0	27	34	10	71	71
<b>Embassy</b>	0	5	21	16	30	72	72
<b>Excursion</b>	0	0	14	44	162	220	220
<b>Fascination</b>	0	6	47	34	41	128	128
<b>Lajoya</b>	0	5	20	16	0	41	41
<b>ORS.6132C</b>	0	11	40	40	21	112	112
<b>Power House</b>	0	10	14	42	64	130	130
<b>Red Amber</b>	0	5	26	44	123	200	197
<b>SVWA 6576 (Jet Ski)</b>	0	15	35	0	23	73	73
<b>Scarlet Crisp</b>	0	5	14	17	81	117	117
<b>Shoreline</b>	0	9	6	25	101	142	142
<b>Sierra Madre</b>	0	0	7	27	59	93	93
<b>Sierra Nevada</b>	0	0	7	76	99	182	182
<b>Summerlicious</b>	0	10	29	51	22	111	111
<b>Sweet Gem</b>	0	11	54	141	51	258	258
<b>Talca</b>	0	4	19	8	0	32	32
<b>WDL 8415 (Valor)</b>	0	5	20	45	105	175	175
<b>WDL 8425</b>	0	5	0	17	68	90	90
<b>WDL 9450</b>	0	15	20	42	87	164	164
<b>WDL 9454</b>	0	14	28	42	36	120	120
<b>7197</b>	0	0	49	55	0	105	105
<b>Average</b>	--	7	27	42	53	130	129
<b>LSD (0.05)</b>	--	37	99	121	162	188	189

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP - 7' pollenizers were interplanted after triploid plants 1 and 7 while 'Wild Card Plus' pollenizer plants were interplanted after triploid plants 4 and 10 (4 pollenizer plants/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Includes fruit ≥ 9 pounds.

<sup>3</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

**Table 2. Standard size triploid watermelon cultigen study. Fruit weight (cwt)**  
per acre by various weight classes<sup>1</sup> for **late harvest (3)**. Clinton, NC 2021.

<b>Cultigen</b>	<b>cwt (x100) by size</b>					<b>Total Fruit cwt / ac</b>	<b>Mkt. Fruit cwt / ac<sup>2</sup></b>
	<b>&lt; 9</b>	<b>9 - 13.4</b>	<b>13.5 - 17.4</b>	<b>17.5 - 21.4</b>	<b>≥ 21.5</b>		
<b>Captivation</b>	0	59	20	41	23	144	144
<b>Dark Knight</b>	9	36	27	8	20	100	91
<b>E26C.00124 (Destination)</b>	6	36	113	134	20	309	303
<b>E26C.00139 (Rio Grande)</b>	3	44	40	50	81	218	216
<b>Embassy</b>	0	41	42	93	145	321	321
<b>Excursion</b>	0	40	30	44	75	189	189
<b>Fascination</b>	3	18	20	44	95	182	178
<b>Lajoya</b>	20	85	164	57	0	326	307
<b>ORS.6132C</b>	0	75	141	26	50	292	292
<b>Power House</b>	9	69	47	34	53	212	203
<b>Red Amber</b>	3	43	48	25	51	171	167
<b>SVWA 6576 (Jet Ski)</b>	3	86	92	69	0	250	247
<b>Scarlet Crisp</b>	2	20	35	49	116	223	221
<b>Shoreline</b>	3	30	60	76	105	273	270
<b>Sierra Madre</b>	0	0	49	61	66	176	176
<b>Sierra Nevada</b>	0	28	29	92	112	261	261
<b>Summerlicious</b>	0	44	39	117	105	305	305
<b>Sweet Gem</b>	0	34	61	56	10	161	161
<b>Talca</b>	14	48	95	124	157	440	425
<b>WDL 8415 (Valor)</b>	7	41	68	121	47	284	277
<b>WDL 8425</b>	0	58	80	45	47	231	231
<b>WDL 9450</b>	2	28	14	26	50	121	119
<b>WDL 9454</b>	6	48	13	9	42	118	112
<b>7197</b>	14	49	66	91	47	267	253
<b>Average</b>	7	44	58	62	63	232	228
<b>LSD (0.05)</b>	<b>25</b>	<b>101</b>	<b>114</b>	<b>170</b>	<b>163</b>	<b>295</b>	<b>301</b>

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP - 7' pollenizers were interplanted after triploid plants 1 and 7 while 'Wild Card Plus' pollenizer plants were interplanted after triploid plants 4 and 10 (4 pollenizer plants/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Includes fruit ≥ 9 pounds.

<sup>3</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.



**Table 3. Standard size triploid watermelon cultigen study. Fruit weight (cwt) per acre by various weight classes<sup>1</sup> for cumulative harvests (1-3) . Clinton, NC 2021.**

Cultigen	Company	Rank <sup>2</sup>	cwt (x100) by size					Total Fruit cwt / ac	Mkt. Fruit cwt / ac <sup>3</sup>
			< 9	9 - 13.4	13.5 - 17.4	17.5 - 21.4	≥ 21.5		
Captivation	Syngenta	11	3	123	252	196	108	683	680
Dark Knight	Syngenta	20	12	74	157	194	162	600	588
E26C.00124 (Destination)	Enza Zaden	5	6	51	251	287	144	739	733
E26C.00139 (Rio Grande)	Enza Zaden	12	3	54	174	202	247	680	677
Embassy	BASF/Nunhems	14	3	61	118	209	271	663	659
Excursion	Syngenta	17	3	46	57	165	339	610	607
Fascination	Syngenta	15	3	39	113	245	257	657	654
Lajoya	Origene	16	33	132	312	188	20	686	653
ORS.6132C	Origene	6	0	108	264	203	149	724	724
Power House	Syngenta	13	10	90	138	214	223	675	665
Red Amber	Enza Zaden	9	7	70	115	229	280	700	694
SVWA 6576 (Jet Ski)	Seminis	19	3	159	205	145	83	594	591
Scarlet Crisp	Syngenta	8	2	30	70	100	508	710	708
Shoreline	Seminis	2	8	49	119	261	370	808	800
Sierra Madre	Sakata	10	0	6	91	183	412	692	692
Sierra Nevada	Sakata	3	0	32	55	193	476	756	756
Summerlicious	Syngenta	1	3	77	190	261	326	858	854
Sweet Gem	Syngenta	18	3	60	196	247	100	606	603
Talca	Origene	4	17	76	196	242	234	765	748
WDL 8415 (Valor)	Syngenta	7	9	67	144	216	284	719	710
WDL 8425	Syngenta	22	0	74	122	155	220	571	571
WDL 9450	Syngenta	21	3	69	81	167	254	575	572
WDL 9454	Syngenta	23	12	79	101	135	253	579	567
7197	BASF/Nunhems	8	14	75	156	294	183	722	708
Average	--	--	7	71	153	206	246	682	676
LSD (0.05)	--	--	26	126	198	229	311	270	275

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP - 7' pollenizers were interplanted after triploid plants 1 and 7 while 'Wild Card Plus' pollenizer plants were planted after triploid plants 4 and 10 (4 pollenizer plants/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Ranked according to total marketable weight.

<sup>3</sup> Includes fruit ≥ 9 pounds.

<sup>4</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

**Table 4. Standard size triploid watermelon cultigen study. Bin boxes per acre by various weight classes including average fruit size<sup>1</sup> for early harvest (1). Clinton, NC 2021.**

Cultigen	Bin boxes / acre by size grade <sup>2</sup>					Mkt. Bins / ac <sup>3</sup>	% Total Yield by Count <sup>4</sup>				Avg lb./ fruit
	< 9	9 - 13.4	13.5 - 17.4	17.5 - 21.4	≥ 21.5		30	36	45	60	
Captivation	0	2	10	7	2	21	6	29	56	9	16.8
Dark Knight	0	0	10	16	7	35	22	46	28	0	18.9
E26C.00124 (Destination)	0	1	2	5	4	12	29	31	11	4	19.8
E26C.00139 (Rio Grande)	0	0	4	5	1	10	8	41	27	0	18.3
Embassy	0	1	3	2	4	10	51	17	27	6	19.2
Excursion	0	0	2	6	23	31	68	27	4	0	23.0
Fascination	0	1	7	5	6	18	39	23	35	3	19.0
Lajoya	0	1	3	2	0	6	0	12	34	4	15.7
ORS.6132C	0	2	6	6	3	16	29	13	26	7	18.5
Power House	0	1	2	6	9	19	35	50	9	6	19.9
Red Amber	0	1	4	6	18	28	59	21	15	2	19.7
SVWA 6576 (Jet Ski)	0	2	5	0	3	10	33	0	43	24	17.7
Scarlet Crisp	0	1	2	2	12	17	34	31	31	4	20.1
Shoreline	0	1	1	4	14	20	72	19	5	3	22.0
Sierra Madre	0	0	1	4	8	13	62	32	6	0	24.6
Sierra Nevada	0	0	1	11	14	26	55	42	3	0	23.5
Summerlicious	0	1	4	7	3	16	34	48	13	4	20.4
Sweet Gem	0	2	8	20	7	37	19	57	20	5	18.6
Talca	0	1	3	1	0	5	0	8	38	4	14.4
WDL 8415 (Valor)	0	1	3	6	15	25	65	21	9	5	21.2
WDL 8425	0	1	0	2	10	13	43	29	0	3	22.2
WDL 9450	0	2	3	6	12	23	62	19	13	6	24.8
WDL 9454	0	2	4	6	5	17	29	37	24	11	18.8
7197	0	0	7	8	0	15	0	62	38	0	17.4
Average	--	1	4	6	8	18	36	30	21	5	19.8
LSD (0.05)	--	5	14	17	23	27	--	--	--	--	9.7

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP-7' pollenizers were interplanted after triploid plants 1 and 7 while 'Wild Card Plus' pollenizers were interplanted after triploid plants 4 and 10 (4 total pollenizer plants/plot).

Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Values were determined based upon 700 lb bin box weight.

<sup>3</sup> Includes fruit ≥ 9 pounds.

<sup>4</sup> Culls are included in calculation for total yield by count for each respective bin category. Therefore, total will not equal 100 percent.

<sup>5</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.



**Table 5. Standard size triploid watermelon cultigen study. Bin boxes per acre by various weight classes including average fruit size<sup>1</sup> for late harvest (3). Clinton, NC 2021.**

Cultigen	Bin boxes / acre by size grade <sup>2</sup>					Mkt. Bins / ac <sup>3</sup>	% Total Yield by Count <sup>4</sup>				Avg lb./ fruit
	< 9	9 - 13.4	13.5 - 17.4	17.5 - 21.4	> 21.5		30	36	45	60	
Captivation	0	8	3	6	3	21	15	21	25	40	14.8
Dark Knight	1	5	4	1	3	13	21	9	25	36	13.9
E26C.00124 (Destination)	1	5	16	19	3	43	3	39	40	15	16.1
E26C.00139 (Rio Grande)	0	6	6	7	12	31	38	24	16	20	17.1
Embassy	0	6	6	13	21	46	46	29	13	12	19.6
Excursion	0	6	4	6	11	27	38	20	15	26	17.6
Fascination	0	3	3	6	14	25	42	29	14	12	19.3
Lajoya	3	12	23	8	0	44	0	16	52	27	14.0
ORS.6132C	0	11	20	4	7	42	16	7	51	26	15.3
Power House	1	10	7	5	8	29	27	9	19	35	13.6
Red Amber	0	6	7	4	7	24	33	13	29	24	16.4
SVWA 6576 (Jet Ski)	0	12	13	10	0	35	0	23	35	40	14.2
Scarlet Crisp	0	3	5	7	17	32	53	22	15	9	19.9
Shoreline	0	4	9	11	15	39	36	28	24	11	17.9
Sierra Madre	0	0	7	9	9	25	44	24	31	0	20.3
Sierra Nevada	0	4	4	13	16	37	47	33	10	10	19.7
Summerlicious	0	6	6	17	15	44	26	49	11	14	17.6
Sweet Gem	0	5	9	8	1	23	6	31	39	23	15.3
Talca	2	7	14	18	22	61	37	20	22	11	16.0
WDL 8415 (Valor)	1	6	10	17	7	40	13	46	25	13	17.3
WDL 8425	0	8	11	6	7	33	16	15	40	30	15.9
WDL 9450	0	4	2	4	7	17	34	21	16	28	16.5
WDL 9454	1	7	2	1	6	16	48	4	7	29	14.8
7197	2	7	9	13	7	36	15	34	24	20	15.1
Average	1	6	8	9	9	33	27	24	25	21	16.6
LSD (0.05)	4	14	16	24	23	43	--	--	--	--	7.0

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP-7' pollenizer plants were interplanted after triploid plants 1 and 7 while 'Wild Card Plus' pollenizer plants were interplanted after triploid plants 4 and 10 (4 pollenizer plants per/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Values were determined based upon 700 lb bin box weight.

<sup>3</sup> Includes fruit ≥ 9 pounds.

<sup>4</sup> Culls are included in calculation for total yield by count for each respective bin category. Therefore, total will not equal 100 percent.

<sup>5</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

**Table 6. Standard size triploid watermelon cultigen study. Bin boxes per acre by various weight classes<sup>1</sup> including average fruit size for cumulative harvests (1-3). Clinton, NC 2021.**

Cultigen	Company	Rank <sup>2</sup>	Bin boxes / acre by size grade						Total Mkt. Bins / ac <sup>3</sup>	% Total Yield by Count <sup>4</sup>				Avg. lb / fruit
			< 9	9 - 13.4	13.5 - 17.4	17.5 - 21.4	≥ 21.5	/ ac		30	36	45	60	
Captivation	Syngenta	9	0	18	36	28	15	98	97	16	29	36	18	16.5
Dark Knight	Syngenta	15	2	11	22	28	23	86	84	26	34	25	13	17.0
E26C.00124 (Destination)	Enza Zaden	5	1	7	36	41	21	106	105	19	38	36	7	17.6
E26C.00139 (Rio Grande)	Enza Zaden	9	0	8	25	29	35	97	97	37	29	25	8	18.8
Embassy	BASF/Nunhems	11	0	9	17	30	39	95	94	41	32	18	9	19.1
Excursion	Syngenta	13	0	7	8	24	48	87	87	56	27	9	8	20.6
Fascination	Syngenta	12	0	6	16	35	37	94	93	38	35	20	6	19.4
Lajoya	Origene	12	5	19	45	27	3	98	93	3	28	47	18	14.8
ORS.6132C	Origene	6	0	15	38	29	21	103	103	20	28	36	15	17.0
Power House	Syngenta	10	1	13	20	31	32	96	95	34	31	20	13	17.3
Red Amber	Enza Zaden	8	1	10	16	33	40	100	99	40	33	16	10	18.6
SVWA 6576 (Jet Ski)	Seminis	15	0	23	29	21	12	85	84	14	24	34	27	15.7
Scarlet Crisp	Syngenta	7	0	4	10	14	73	101	101	72	14	10	4	22.8
Shoreline	Seminis	2	1	7	17	37	53	115	114	46	33	15	6	19.5
Sierra Madre	Sakata	8	0	1	13	26	59	99	99	59	26	14	1	23.0
Sierra Nevada	Sakata	3	0	5	8	28	68	108	108	63	26	7	4	22.3
Summerlicious	Syngenta	1	0	11	27	37	47	123	122	34	32	23	10	18.4
Sweet Gem	Syngenta	14	0	9	28	35	14	87	86	17	40	32	10	17.0
Talca	Origene	4	2	11	28	35	33	109	107	31	31	26	10	17.3
WDL 8415 (Valor)	Syngenta	7	1	10	21	31	41	103	101	39	29	21	10	18.7
WDL 8425	Syngenta	16	0	11	17	22	31	82	82	37	28	21	13	18.4
WDL 9450	Syngenta	16	0	10	12	24	36	82	82	43	30	15	12	18.9
WDL 9454	Syngenta	17	2	11	14	19	36	83	81	43	23	17	14	18.5
7197	BASF/Nunhems	7	2	11	22	42	26	103	101	24	42	21	11	17.4
Average	--	--	1	10	22	29	35	97	97	35	30	23	11	18.5
LSD (0.05)	--	--	4	18	28	33	44	39	39	--	--	--	--	3.9

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP - 7' pollenizers were interplanted after triploid plants 1 and 7 while 'Wild Card Plus' pollenizer plants were planted after triploid plants 4 and 10 (4 pollenizers per/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Ranked according to total marketable weight.

<sup>3</sup> Includes fruit ≥ 9 pounds.

<sup>4</sup> Culls are included in calculation for total yield by count for each respective bin category. Therefore, total will not equal 100 percent.

<sup>5</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.



**Table 7. Standard size triploid watermelon cultigen study. Fruit number per acre by various weight classes including fruit number per plant for early harvest (1). Clinton, NC 2021.**

Cultigen	Rank <sup>1</sup>	Fruit size category					Total no. / ac	Total Mkt. no. / ac <sup>2</sup>	Fruit No./ Plant
		< 9	9 - 13.4	13.5 - 17.4	17.5 - 21.4	≥ 21.5			
Captivation	4	0	131	436	261	44	871	871	0.5
Dark Knight	2	0	0	436	566	218	1307	1307	0.8
E26C.00124 (Destination)	11	0	44	87	174	131	436	436	0.3
E26C.00139 (Rio Grande)	12	0	0	174	174	44	392	392	0.2
Embassy	12	0	44	131	87	131	392	392	0.2
Excursion	3	0	0	87	218	653	958	958	0.6
Fascination	7	0	44	305	174	174	697	697	0.4
Lajoya	13	0	44	131	87	0	261	261	0.2
ORS.6132C	8	0	87	261	218	87	653	653	0.4
Power House	8	0	87	87	218	261	653	653	0.4
Red Amber	3	0	44	174	218	523	1002	958	0.6
SVWA 6576 (Jet Ski)	11	0	131	218	0	87	436	436	0.3
Scarlet Crisp	10	0	44	87	87	305	523	523	0.3
Shoreline	8	0	87	44	131	392	653	653	0.4
Sierra Madre	12	0	0	44	131	218	392	392	0.2
Sierra Nevada	6	0	0	44	392	348	784	784	0.5
Summerlicious	9	0	87	174	261	87	610	610	0.4
Sweet Gem	1	0	87	348	741	218	1394	1394	0.8
Talca	14	0	44	131	44	0	218	218	0.1
WDL 8415 (Valor)	5	0	44	131	218	436	828	828	0.5
WDL 8425	12	0	44	0	87	261	392	392	0.2
WDL 9450	6	0	131	131	218	305	784	784	0.5
WDL 9454	8	0	131	174	218	131	653	653	0.4
7197	9	0	0	305	305	0	610	610	0.4
Average	--	--	56	172	218	211	662	661	0.4
LSD(0.05)	--	--	318	623	628	643	974	985	0.6

<sup>1</sup> Ranked according to total marketable number.

<sup>2</sup> Includes fruit ≥ 9 pounds.

<sup>3</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

**Table 8. Standard size triploid watermelon cultigen study. Fruit number per acre by various weight classes including fruit number per plant for late harvest (3). Clinton, NC 2021.**

Cultigen	Rank <sup>1</sup>	Fruit size category					Total no. / ac	Total Mkt. no. / ac <sup>2</sup>	Fruit No./ Plant
		< 9	9 - 13.4	13.5 - 17.4	17.5 - 21.4	≥ 21.5			
Captivation	16	0	523	131	218	87	958	958	0.6
Dark Knight	20	131	305	174	44	87	741	610	0.4
E26C.00124 (Destination)	4	87	305	697	697	87	1873	1786	1.1
E26C.00139 (Rio Grande)	13	44	392	261	261	348	1307	1263	0.8
Embassy	6	0	348	261	479	566	1655	1655	1.0
Excursion	15	0	348	174	218	305	1045	1045	0.6
Fascination	17	44	174	131	218	348	915	871	0.5
Lajoya	2	261	741	1045	305	0	2352	2091	1.4
ORS.6132C	3	0	653	915	131	218	1917	1917	1.1
Power House	12	131	610	305	174	218	1437	1307	0.8
Red Amber	15	44	392	305	131	218	1089	1045	0.6
SVWA 6576 (Jet Ski)	5	44	741	610	348	0	1742	1699	1.0
Scarlet Crisp	14	44	174	218	261	436	1133	1089	0.7
Shoreline	9	44	261	392	392	436	1525	1481	0.9
Sierra Madre	17	0	0	305	305	261	871	871	0.5
Sierra Nevada	11	0	261	174	479	436	1350	1350	0.8
Summerlicious	5	0	392	261	610	436	1699	1699	1.0
Sweet Gem	15	0	305	392	305	44	1045	1045	0.6
Talca	1	218	436	610	653	610	2526	2309	1.5
WDL 8415 (Valor)	7	87	348	436	610	174	1655	1568	1.0
WDL 8425	10	0	523	523	218	174	1437	1437	0.8
WDL 9450	18	44	261	87	131	218	741	697	0.4
WDL 9454	18	87	392	87	44	174	784	697	0.5
7197	8	218	436	436	479	174	1742	1525	1.0
Average	- -	102	388	372	321	252	1398	1334	0.8
LSD(0.05)	- -	365	869	733	878	641	1575	1643	0.9

<sup>1</sup> Ranked according to total marketable number.

<sup>2</sup> Includes fruit ≥ 9 pounds.

<sup>3</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.



**Table 9. Standard size triploid watermelon cultigen study. Fruit number per acre for by various weight classes including fruit number per plant for cumulative harvests (1-3).** Clinton, NC 2021.

Cultigen	Company	Rank <sup>1</sup>	Fruit size category					Total no. / ac	Total Mkt. no. / ac <sup>2</sup>	Fruit No./ Plant
			< 9	9 - 13.4	13.5 - 17.4	17.5 - 21.4	≥ 21.5			
Captivation	Syngenta	4	44	1045	1612	1045	436	4182	4138	2.4
Dark Knight	Syngenta	14	174	653	1002	1002	697	3528	3354	2.0
E26C.00124 (Destination)	Enza Zaden	5	87	436	1568	1481	610	4182	4095	2.4
E26C.00139 (Rio Grande)	Enza Zaden	10	44	479	1089	1045	1002	3659	3615	2.1
Embassy	BASF/Nunhems	12	44	523	741	1089	1089	3485	3441	2.0
Excursion	Syngenta	19	44	392	348	828	1350	2962	2919	1.7
Fascination	Syngenta	15	44	348	741	1220	1002	3354	3311	1.9
Lajoya	Origene	3	436	1133	2004	1002	87	4661	4225	2.7
ORS.6132C	Origene	2	0	915	1699	1045	610	4269	4269	2.5
Power House	Syngenta	9	174	784	871	1133	915	3877	3703	2.2
Red Amber	Enza Zaden	9	87	610	741	1176	1176	3790	3703	2.2
SVWA 6576 (Jet Ski)	Seminis	8	44	1350	1307	741	348	3790	3746	2.2
Scarlet Crisp	Syngenta	16	44	261	436	523	1873	3136	3093	1.8
Shoreline	Seminis	6	131	436	784	1350	1437	4138	4008	2.4
Sierra Madre	Sakata	17	0	44	566	915	1481	3006	3006	1.7
Sierra Nevada	Sakata	13	0	305	348	1002	1742	3398	3398	2.0
Summerlicious	Syngenta	1	44	697	1220	1350	1307	4617	4574	2.7
Sweet Gem	Syngenta	11	44	523	1263	1307	436	3572	3528	2.1
Talca	Origene	4	261	697	1263	1263	915	4400	4138	2.5
WDL 8415 (Valor)	Syngenta	9	131	566	915	1089	1133	3833	3703	2.2
WDL 8425	Syngenta	16	0	653	784	784	871	3093	3093	1.8
WDL 9450	Syngenta	18	87	610	523	871	958	3049	2962	1.8
WDL 9454	Syngenta	18	174	653	653	697	958	3136	2962	1.8
7197	BASF/Nunhems	7	218	653	1002	1525	741	4138	3920	2.4
Average	--	--	98	615	978	1062	966	3719	3621	2.1
LSD(0.05)	--	--	381	1068	1260	1181	1219	1360	1422	0.8

<sup>1</sup> Ranked according to total marketable number.

<sup>2</sup> Includes fruit ≥ 9 pounds.

<sup>3</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

Table 10. Standard size triploid watermelon cultigen study. Interior fruit quality<sup>1</sup>. Clinton, NC 2021.

Cultigen	Flesh Sd. Trace Hard Seed				Flesh		Hollow Heart Ratings <sup>9</sup>					
	SS <sup>2</sup>	Color <sup>3</sup>	Size <sup>4</sup>	Population <sup>5</sup>	LD <sup>6</sup>	Rind <sup>7</sup>	Firmness <sup>8</sup>	HH0	HH1	HH2	HH3	HH4
Captivation	11.7	3.2	1.8	0.6	1.2	16.1	2.7	91.7	0.0	8.3	0.0	0.0
Dark Knight	12.4	4.3	1.6	0.3	1.1	17.3	2.5	66.7	8.3	16.7	8.3	0.0
E26C.00124 (Destination)	11.3	3.3	1.5	0.3	1.3	18.5	3.0	91.7	8.3	0.0	0.0	0.0
E26C.00139 (Rio Grande)	12.3	4.4	1.6	0.5	1.2	16.7	2.9	83.3	8.3	0.0	8.3	0.0
Embassy	12.1	3.8	1.5	0.5	1.2	18.8	2.6	75.0	8.3	8.3	0.0	8.3
Excursion	11.9	3.9	1.8	0.8	1.2	17.3	2.8	75.0	25.0	0.0	0.0	0.0
Fascination	11.8	3.9	1.0	0.3	1.3	15.8	2.9	75.0	0.0	8.3	8.3	8.3
Lajoya	12.2	4.5	1.8	0.6	1.0	16.8	3.3	100.0	0.0	0.0	0.0	0.0
ORS.6132C	11.6	3.5	1.0	1.4	1.2	18.4	3.0	100.0	0.0	0.0	0.0	0.0
Power House	11.5	3.7	1.6	0.3	1.2	17.9	2.5	100.0	0.0	0.0	0.0	0.0
Red Amber	12.1	3.8	1.9	0.3	1.3	17.6	2.9	100.0	0.0	0.0	0.0	0.0
SVWA 6576 (Jet Ski)	12.6	4.2	1.0	0.8	1.3	14.2	2.9	100.0	0.0	0.0	0.0	0.0
Scarlet Crisp	10.9	4.8	2.3	0.2	1.4	18.7	4.4	100.0	0.0	0.0	0.0	0.0
Shoreline	12.0	3.8	1.1	0.3	1.3	16.7	4.8	100.0	0.0	0.0	0.0	0.0
Sierra Madre	12.4	4.7	1.3	0.0	1.2	17.4	3.2	83.3	8.3	0.0	0.0	8.3
Sierra Nevada	12.2	3.8	1.3	0.2	1.3	15.8	3.2	91.7	8.3	0.0	0.0	0.0
Summerlicious	11.6	3.4	1.1	0.8	1.2	18.8	3.0	100.0	0.0	0.0	0.0	0.0
Sweet Gem	12.2	4.2	2.5	0.2	1.1	16.3	2.3	83.3	8.3	8.3	0.0	0.0
Talca	12.8	3.8	2.1	0.3	1.1	17.5	2.6	100.0	0.0	0.0	0.0	0.0
WDL 8415 (Valor)	12.0	4.7	1.4	0.2	1.2	12.9	2.5	91.7	0.0	0.0	8.3	0.0
WDL 8425	11.2	4.9	1.8	0.6	1.2	16.0	3.8	100.0	0.0	0.0	0.0	0.0
WDL 9450	12.1	4.3	1.0	0.6	1.2	15.5	3.0	91.7	8.3	0.0	0.0	0.0
WDL 9454	11.7	4.6	1.4	0.3	1.2	13.8	3.0	91.7	8.3	0.0	0.0	0.0
7197	12.5	3.8	1.8	0.7	1.2	19.8	2.7	100.0	0.0	0.0	0.0	0.0
Average	12.0	4.0	1.6	0.5	1.2	16.9	3.0	91	4	2	1	1
LSD(0.05)	1.6	1.0	1.0	1.1	0.2	5.5	0.6	--	--	--	--	--

<sup>1</sup> Most measurements were obtained from fruits in harvests 1 and 2.

<sup>2</sup> SS = Indicates sweetness, average of 3 melons per replication (12 total).

<sup>3</sup> Rating: 1 = yellow, 2 = pink, 3 = red, 4 = medium-dark red, 5 = blood red.

<sup>4</sup> Rating: 1=small (i.e. tomato), 3=medium, 5=large.

<sup>5</sup> Average number of hard seeds counted within 3 melons per replication (12 total).

<sup>6</sup> LD = Length and diameter ratio, average of 3 melons per replication (12 total).

<sup>7</sup> Rind = Rind thickness (mm), measured from rind to where white and colored flesh meet.

<sup>8</sup> Fruit pressure was taken by a penetrometer, Fruit Pressure Tester - FT011.

from QA Supplies LLC, Norfolk Va.

<sup>9</sup> HH Percentage Rating Scale:

HH0: No crack in flesh

HH1: Slight crack in flesh

HH2: Small crack in flesh

HH3: Med. separation in flesh

HH4: Complete separation in flesh to rind.

\*\*HH3 & HH4 = Non-marketable



**Figure 2.** Mini size triploid watermelon photographs. Clinton, NC 2021.





**Figure 2.** Mini size triploid watermelon photographs. Clinton, NC 2021.





**Figure 2.** Mini size triploid watermelon photographs. Clinton, NC 2021.





**Figure 2.** Mini size triploid watermelon photographs. Clinton, NC 2021.





**Figure 2.** Mini size triploid watermelon photographs. Clinton, NC 2021.





**Figure 2.** Mini size triploid watermelon photographs. Clinton, NC 2021.



**Table 11. Mini size triploid watermelon cultigen study. Fruit weight (cwt) per acre by various weight classes including average fruit size<sup>1</sup> for early season harvests (1-2). Clinton, NC 2021.**

<b>Cultigen</b>	<b>cwt (x100) by size</b>				<b>Total Fruit</b>	<b>Mkt. Fruit</b>	<b>Avg. Mkt.</b>
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>	<b>cwt / ac</b>	<b>cwt / ac<sup>2</sup></b>	<b>Fruit Wt.<sup>3</sup></b>
<b>Excite</b>	0	163	183	222	567	345	6.7
<b>Extazy</b>	0	82	131	363	575	213	7.0
<b>Nectaro</b>	1	140	165	167	472	304	6.9
<b>ORS 70368</b>	0	90	99	313	503	189	6.6
<b>ORS 70383</b>	5	88	126	353	571	213	6.7
<b>ORS 7220</b>	0	53	118	357	529	171	7.2
<b>Petite Perfection</b>	10	278	72	0	360	350	5.7
<b>Preakness</b>	2	108	160	329	599	268	6.7
<b>Sirius</b>	3	100	152	218	472	252	6.9
<b>Sugar Bomb</b>	2	382	80	14	477	462	5.7
<b>Sugar Rush</b>	2	122	177	188	489	299	7.0
<b>50035</b>	3	231	162	29	425	393	6.4
<b>Average</b>	3.4	153	135	232	503	288	6.6
<b>LSD (0.05)</b>	<b>10</b>	<b>91</b>	<b>148</b>	<b>152</b>	<b>124</b>	<b>152</b>	<b>1.0</b>

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP - 7' and 'Wild Card Plus' pollenizers were alternately interplanted after triploid plants 1, 4, 7 and 10 (4 pollenizer plants/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Average of fruit ≥ 3 pounds.

<sup>3</sup> Includes fruit ≥ 3 pounds.

<sup>4</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.



**Table 12. Mini size triploid watermelon cultigen study. Fruit weight (cwt) per acre by various weight classes including average fruit size<sup>1</sup> for mid to late season harvests (3-4).**  
Clinton, NC 2021.

<b>Cultigen</b>	<b>cwt (x100) by size</b>				<b>Total Fruit</b>	<b>Mkt. Fruit</b>	<b>Avg. Mkt.</b>
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>	<b>cwt / ac</b>	<b>cwt / ac<sup>2</sup></b>	<b>Fruit Wt.<sup>3</sup></b>
<b>Excite</b>	7	90	11	7	115	101	5.1
<b>Extazy</b>	10	89	23	9	131	112	4.8
<b>Nectaro</b>	9	93	18	0	119	110	4.6
<b>ORS 70368</b>	5	39	28	0	72	67	6.4
<b>ORS 70383</b>	11	53	11	0	75	64	4.8
<b>ORS 7220</b>	5	47	23	15	90	71	5.2
<b>Petite Perfection</b>	4	101	5	0	111	106	4.4
<b>Preakness</b>	14	84	17	0	115	101	4.9
<b>Sirius</b>	0	138	28	8	174	166	5.3
<b>Sugar Bomb</b>	49	100	5	0	155	106	4.3
<b>Sugar Rush</b>	3	74	0	22	99	74	4.0
<b>50035</b>	5	134	23	8	170	157	4.6
<b>Average</b>	11	87	18	11	119	103	5
<b>LSD (0.05)</b>	<b>24</b>	<b>110</b>	<b>58</b>	<b>42</b>	<b>128</b>	<b>128</b>	<b>1.7</b>

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP - 7' and 'Wild Card Plus' pollenizers were alternately interplanted after triploid plants 1, 4, 7 and 10 (4 pollenizer plants/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Average of fruit ≥ 3 pounds.

<sup>3</sup> Includes fruit ≥ 3 pounds.

<sup>4</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

**Table 13. Mini size triploid watermelon cultigen study. Fruit weight (cwt) per acre by various weight classes including average fruit size<sup>1</sup> for cumulative harvests (1-4).** Clinton, NC 2021.

<b>Cultigen</b>	<b>cwt (x100) by size</b>				<b>Total Fruit</b>	<b>Mkt. Fruit</b>	<b>Avg. Mkt.</b>
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>	<b>cwt / ac</b>	<b>cwt / ac<sup>2</sup></b>	<b>Fruit Wt.<sup>3</sup></b>
<b>Excite</b>	7	253	193	229	682	446	6.3
<b>Extazy</b>	10	170	154	372	706	324	6.1
<b>Nectaro</b>	10	232	183	167	591	415	6.2
<b>ORS 70368</b>	5	129	128	313	575	256	6.6
<b>ORS 70383</b>	16	140	137	353	645	277	6.1
<b>ORS 7220</b>	5	101	142	372	619	242	6.7
<b>Petite Perfection</b>	14	380	77	0	470	456	5.4
<b>Preakness</b>	16	192	177	329	714	369	6.1
<b>Sirius</b>	3	237	180	225	646	418	6.2
<b>Sugar Bomb</b>	51	482	85	14	632	567	5.3
<b>Sugar Rush</b>	5	196	177	210	588	373	6.0
<b>50035</b>	8	365	185	37	594	550	5.8
<b>Average</b>	12	240	151	238	622	391	6
<b>LSD (0.05)</b>	<b>25</b>	<b>123</b>	<b>158</b>	<b>155</b>	<b>175</b>	<b>192</b>	<b>1.1</b>

<sup>1</sup> Yields are calculated using 100 percent seedless watermelon population. 'SP - 7' and 'Wild Card Plus' pollenizers were alternately interplanted after triploid plants 1, 4, 7 and 10 (4 pollenizer plants/plot). Fruit weights for each category are rounded to the nearest whole number.

<sup>2</sup> Average of fruit ≥ 3 pounds.

<sup>3</sup> Includes fruit ≥ 3 pounds.

<sup>4</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

**Table 14. Mini size triploid watermelon cultigen study. Fruit number for early season harvests (1-2). Clinton, NC 2021.**

<b>Cultigen</b>	<b>Fruit size category</b>				<b>Total Fruit</b>	<b>Total Mkt.</b>	<b>Frt. No./</b>
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>	<b>no. / ac</b>	<b>no. / ac<sup>1</sup></b>	<b>Plant</b>
<b>Excite</b>	0	2831	2323	2105	7260	5155	2.5
<b>Extazy</b>	0	1452	1597	3194	6244	3049	2.2
<b>Nectaro</b>	73	2323	2033	1597	6026	4356	2.1
<b>ORS 70368</b>	0	1597	1234	2759	5590	2831	1.9
<b>ORS 70383</b>	290	1597	1597	3122	6607	3194	2.3
<b>ORS 7220</b>	0	944	1452	3049	5445	2396	1.9
<b>Petite Perfection</b>	363	5227	944	0	6534	6171	2.3
<b>Preakness</b>	145	1960	2033	3122	7260	3993	2.5
<b>Sirius</b>	145	1742	1888	2033	5808	3630	2.0
<b>Sugar Bomb</b>	73	7042	1016	145	8276	8059	2.9
<b>Sugar Rush</b>	73	2105	2178	1742	6098	4283	2.1
<b>50035</b>	145	3993	2105	290	6534	6098	2.3
<b>Average</b>	163	2734	1700	2105	6474	4435	2.3
<b>LSD (0.05)</b>	<b>445</b>	<b>1675</b>	<b>1811</b>	<b>1385</b>	<b>1571</b>	<b>2062</b>	<b>0.5</b>

<sup>1</sup> Average of fruit ≥ 3 pounds.

<sup>2</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.



**Table 15. Mini size triploid watermelon cultigen study. Fruit number for cumulative harvests (1-4). Clinton, NC 2021.**

<b>Cultigen</b>	<b>Fruit size category</b>				<b>Total Fruit</b>	<b>Total Mkt.</b>	<b>Fr. No./</b>
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>	<b>no. / ac</b>	<b>no. / ac<sup>1</sup></b>	<b>Plant</b>
<b>Excite</b>	290	4646	2468	2178	9583	7115	3.3
<b>Extazy</b>	436	3485	1888	3267	9075	5372	3.1
<b>Nectaro</b>	436	4501	2251	1597	8785	6752	3.0
<b>ORS 70368</b>	218	2251	1597	2759	6824	3848	2.4
<b>ORS 70383</b>	799	2831	1742	3122	8494	4574	2.9
<b>ORS 7220</b>	218	1960	1742	3194	7115	3703	2.4
<b>Petite Perfection</b>	508	7478	1016	0	9002	8494	3.1
<b>Preakness</b>	799	3775	2251	3122	9946	6026	3.4
<b>Sirius</b>	145	4501	2251	2105	9002	6752	3.1
<b>Sugar Bomb</b>	2251	9511	1089	145	12995	10600	4.5
<b>Sugar Rush</b>	218	3993	2178	1960	8349	6171	2.9
<b>50035</b>	363	7115	2396	363	10237	9511	3.5
<b>Average</b>	557	4671	1906	2165	9117	6577	3
<b>LSD (0.05)</b>	<b>1029</b>	<b>2425</b>	<b>1955</b>	<b>1431</b>	<b>2857</b>	<b>3077</b>	<b>1.0</b>

<sup>1</sup> Average of fruit ≥ 3 pounds.

<sup>2</sup> Cultigens with no fruit in a weight category ("0") were not included in the analysis.

**Table 16. Mini size triploid watermelon cultigen study. Fruit number for mid to late season harvests (3-4). Clinton, NC 2021.**

<b>Cultigen</b>	<b>Fruit size category</b>				<b>Total Fruit</b>	<b>Total Mkt.</b>	<b>Fr. No./</b>
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>	<b>no. / ac</b>	<b>no. / ac<sup>1</sup></b>	<b>Plant</b>
<b>Excite</b>	290	1815	145	73	2323	1960	0.8
<b>Extazy</b>	436	2033	290	73	2831	2323	1.0
<b>Nectaro</b>	363	2178	218	0	2759	2396	1.0
<b>ORS 70368</b>	218	653	363	0	1234	1016	0.4
<b>ORS 70383</b>	508	1234	145	0	1888	1379	0.6
<b>ORS 7220</b>	218	1016	290	145	1670	1307	0.6
<b>Petite Perfection</b>	145	2251	73	0	2468	2323	0.9
<b>Preakness</b>	653	1815	218	0	2686	2033	0.9
<b>Sirius</b>	0	2759	363	73	3194	3122	1.1
<b>Sugar Bomb</b>	2178	2468	73	0	4719	2541	1.6
<b>Sugar Rush</b>	145	1888	0	218	2251	1888	0.8
<b>50035</b>	218	3122	290	73	3703	3412	1.3
<b>Average</b>	448	1936	244	109	2644	2142	1
<b>LSD (0.05)</b>	<b>995</b>	<b>2376</b>	<b>743</b>	<b>409</b>	<b>2470</b>	<b>2545</b>	<b>0.9</b>

<sup>1</sup> Average of fruit ≥ 3 pounds.

<sup>2</sup> Cultigens with no fruit in a weight category ("0") were not included in analysis.



**Table 17. Mini size triploid watermelon cultigen study.**  
**Percent of fruit weight per acre per indicated size category<sup>1</sup>**  
**for early season harvests (1-2). Clinton, NC 2021.**

<u>Cultigen</u>	<u>Fruit Size Category</u>			
	<u>&lt; 3 lb</u>	<u>3 - 7 lb</u>	<u>7.1 - 9 lb</u>	<u>≥ 9.1 lb</u>
<b>Excite</b>	0	29	32	39
<b>Extazy</b>	0	14	23	63
<b>Petite Perfection</b>	3	77	20	0
<b>Nectaro</b>	0	30	35	35
<b>ORS 70368</b>	0	18	20	62
<b>ORS 70383</b>	1	15	22	62
<b>ORS 7220</b>	0	10	22	68
<b>Preakness</b>	0	18	27	55
<b>Sirius</b>	1	21	32	46
<b>Sugar Bomb</b>	0	80	17	3
<b>Sugar Rush</b>	0	25	36	38
<b>50035</b>	1	54	38	7
<b>Average</b>	1	33	27	40

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.

**Table 18. Mini size triploid watermelon cultigen study.**  
**Percent of fruit weight per acre per indicated size category<sup>1</sup>**  
**for mid to late season harvests (3-4). Clinton, NC 2021.**

<u>Cultigen</u>	<u>Fruit Size Category</u>			
	<u>&lt; 3 lb</u>	<u>3 - 7 lb</u>	<u>7.1 - 9 lb</u>	<u>≥ 9.1 lb</u>
<b>Excite</b>	6	79	9	6
<b>Extazy</b>	7	68	18	7
<b>Petite Perfection</b>	4	92	5	0
<b>Nectaro</b>	7	78	15	0
<b>ORS 70368</b>	7	54	39	0
<b>ORS 70383</b>	15	70	15	0
<b>ORS 7220</b>	6	53	26	16
<b>Preakness</b>	12	73	15	0
<b>Sirius</b>	0	79	16	5
<b>Sugar Bomb</b>	32	65	3	0
<b>Sugar Rush</b>	3	75	0	22
<b>50035</b>	3	79	14	5
<b>Average</b>	9	72	15	5

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.

**Table 19. Mini size triploid watermelon cultigen study.**  
**Percent of fruit weight per acre per indicated size category<sup>1</sup>**  
**for cumulative harvests (1-4). Clinton, NC 2021.**

<u>Cultigen</u>	<u>Fruit Size Category</u>			
	<u>&lt; 3 lb</u>	<u>3 - 7 lb</u>	<u>7.1 - 9 lb</u>	<u>≥ 9.1 lb</u>
<b>Excite</b>	1	37	28	34
<b>Extazy</b>	1	24	22	53
<b>Petite Perfection</b>	3	81	16	0
<b>Nectaro</b>	2	39	31	28
<b>ORS 70368</b>	1	22	22	55
<b>ORS 70383</b>	2	22	21	55
<b>ORS 7220</b>	1	16	23	60
<b>Preakness</b>	2	27	25	46
<b>Sirius</b>	0	37	28	35
<b>Sugar Bomb</b>	8	76	13	2
<b>Sugar Rush</b>	1	33	30	36
<b>50035</b>	1	61	31	6
<b>Average</b>	2	40	24	34

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.

**Table 20. Mini size triploid watermelon cultigen study.**  
**Percent of fruit number per acre per indicated size**  
**category<sup>1</sup> for early season harvests (1-2). Clinton, NC 2021.**

<u>Cultigen</u>	<u>Fruit Size Category</u>			
	<u>&lt; 3 lb</u>	<u>3 - 7 lb</u>	<u>7.1 - 9 lb</u>	<u>≥ 9.1 lb</u>
<b>Excite</b>	0	39	32	29
<b>Extazy</b>	0	23	26	51
<b>Petite Perfection</b>	6	80	14	0
<b>Nectaro</b>	1	39	34	27
<b>ORS 70368</b>	0	29	22	49
<b>ORS 70383</b>	4	24	24	47
<b>ORS 7220</b>	0	17	27	56
<b>Preakness</b>	2	27	28	43
<b>Sirius</b>	3	30	33	35
<b>Sugar Bomb</b>	1	85	12	2
<b>Sugar Rush</b>	1	35	36	29
<b>50035</b>	2	61	32	4
<b>Average</b>	2	41	27	31

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.



**Table 21. Mini size triploid watermelon cultigen study.**

**Percent of fruit number per acre per indicated size category<sup>1</sup> for mid to late season harvests (3-4).**

Clinton, NC 2021.

<b>Cultigen</b>	<b>Fruit Size Category</b>			
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>
<b>Excite</b>	13	78	6	3
<b>Extazy</b>	15	72	10	3
<b>Petite Perfection</b>	6	91	3	0
<b>Nectaro</b>	13	79	8	0
<b>ORS 70368</b>	18	53	29	0
<b>ORS 70383</b>	27	65	8	0
<b>ORS 7220</b>	13	61	17	9
<b>Preakness</b>	24	68	8	0
<b>Sirius</b>	0	86	11	2
<b>Sugar Bomb</b>	46	52	2	0
<b>Sugar Rush</b>	6	84	0	10
<b>50035</b>	6	84	8	2
<b>Average</b>	16	73	9	2

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.

**Table 22. Mini size triploid watermelon cultigen study.**

**Percent of fruit number per acre per indicated size category<sup>1</sup> for cumulative harvests (1-4).** Clinton, NC 2021.

<b>Cultigen</b>	<b>Fruit Size Category</b>			
	<b>&lt; 3 lb</b>	<b>3 - 7 lb</b>	<b>7.1 - 9 lb</b>	<b>≥ 9.1 lb</b>
<b>Excite</b>	3	48	26	23
<b>Extazy</b>	5	38	21	36
<b>Petite Perfection</b>	6	83	11	0
<b>Nectaro</b>	5	51	26	18
<b>ORS 70368</b>	3	33	23	40
<b>ORS 70383</b>	9	33	21	37
<b>ORS 7220</b>	3	28	24	45
<b>Preakness</b>	8	38	23	31
<b>Sirius</b>	2	50	25	23
<b>Sugar Bomb</b>	17	73	8	1
<b>Sugar Rush</b>	3	48	26	23
<b>50035</b>	4	70	23	4
<b>Average</b>	6	49	21	23

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.

**Table 23. Mini size triploid watermelon** cultigen study.  
**Percent of total fruit weight** per acre per indicated  
 harvests<sup>1</sup>. Clinton, NC 2021.

<b>Cultigen</b>	<b>Harvests</b>		<b>Total Frt. Weight</b>
	<b>1 to 2</b>	<b>3 to 4</b>	
<b>Excite</b>	83%	17%	68186
<b>Extazy</b>	82%	18%	70589
<b>Petite Perfection</b>	76%	24%	47048
<b>Nectaro</b>	80%	20%	59129
<b>ORS 70368</b>	87%	13%	57452
<b>ORS 70383</b>	88%	12%	64525
<b>ORS 7220</b>	85%	15%	61873
<b>Preakness</b>	84%	16%	71373
<b>Sirius</b>	73%	27%	64592
<b>Sugar Bomb</b>	75%	25%	63202
<b>Sugar Rush</b>	83%	17%	58752
<b>50035</b>	71%	29%	59445
<b>Average</b>	81%	19%	62181

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.

**Table 24. Mini size triploid watermelon** cultigen study.  
**Percent of total fruit number** per acre per indicated  
 harvests<sup>1</sup>. Clinton, NC 2021.

<b>Cultigen</b>	<b>Harvests</b>		<b>Total Frt. Number</b>
	<b>1 to 2</b>	<b>3 to 4</b>	
<b>Excite</b>	76%	24%	9583
<b>Extazy</b>	69%	31%	9075
<b>Petite Perfection</b>	73%	27%	9002
<b>Nectaro</b>	69%	31%	8785
<b>ORS 70368</b>	82%	18%	6824
<b>ORS 70383</b>	78%	22%	8494
<b>ORS 7220</b>	77%	23%	7115
<b>Preakness</b>	73%	27%	9946
<b>Sirius</b>	65%	35%	9002
<b>Sugar Bomb</b>	64%	36%	12995
<b>Sugar Rush</b>	73%	27%	8349
<b>50035</b>	64%	36%	10237
<b>Average</b>	72%	28%	9117

<sup>1</sup> Percentages for each fruit size category for each cultigen were rounded to the nearest whole number.



**Table 25. Mini size triploid watermelon cultigen study. Interior fruit quality<sup>1</sup>. Clinton, NC 2021.**

<u>Cultigen</u>	<u>Company</u>	Flesh		Seed	Hard Seed	Flesh		Hollow Heart Ratings <sup>9</sup>							
		<u>SS</u> <sup>2</sup>	<u>Color</u> <sup>3</sup>	<u>Trace</u>	<u>Size</u> <sup>4</sup>	<u>Population</u> <sup>5</sup>	<u>LD</u> <sup>6</sup>	<u>Rind</u> <sup>7</sup>	<u>Firmness</u> <sup>8</sup>	<u>HH0</u>	<u>HH1</u>	<u>HH2</u>	<u>HH3</u>	<u>HH4</u>	<u>HH5</u>
<b>Excite</b>	Hazera	11.6	4.5		2.1	0.8	1.1	14.0	2.9	75.0	8.3	8.3	0.0	8.3	0.0
<b>Extazy</b>	Hazera	12.2	4.5		1.5	0.3	1.1	20.2	3.3	91.7	0.0	8.3	0.0	0.0	0.0
<b>Nectaro</b>	Hazera	12.0	4.7		1.2	0.3	1.1	13.6	3.2	100.0	0.0	0.0	0.0	0.0	0.0
<b>ORS 70368</b>	Origene Seeds	11.9	4.3		1.0	7.6	1.1	17.3	3.9	100.0	0.0	0.0	0.0	0.0	0.0
<b>ORS 70383</b>	Origene Seeds	11.4	4.5		1.0	6.3	1.1	17.0	4.0	100.0	0.0	0.0	0.0	0.0	0.0
<b>ORS 7220</b>	Origene Seeds	11.3	4.7		1.2	1.5	1.1	17.8	3.2	100.0	0.0	0.0	0.0	0.0	0.0
<b>Petite Perfection</b>	Syngenta	12.5	4.3		1.3	0.4	1.1	7.9	3.4	100.0	0.0	0.0	0.0	0.0	0.0
<b>Preakness</b>	Sakata	12.0	4.1		1.5	0.1	1.1	15.6	2.7	58.3	16.7	8.3	16.7	0.0	0.0
<b>Sirius</b>	Syngenta	12.7	4.9		1.1	0.9	1.1	14.8	2.8	58.3	0.0	8.3	25.0	8.3	0.0
<b>Sugar Bomb</b>	US Agriseeds	10.4	3.8		3.1	0.4	1.0	20.2	3.3	91.7	0.0	8.3	0.0	0.0	0.0
<b>Sugar Rush</b>	US Agriseeds	11.9	4.4		1.8	0.6	1.1	14.6	3.4	100.0	0.0	0.0	0.0	0.0	0.0
<b>50035</b>	Hazera	11.2	5.0		0.8	0.3	1.1	15.5	3.3	91.7	0.0	0.0	0.0	8.3	0.0
<b>Average</b>		11.8	4.4		1.5	1.6	1.1	15.7	3.3	88.9	2.1	3.5	3.5	2.1	0.0
<b>LSD(0.05)</b>		<b>1.3</b>	<b>0.6</b>		<b>0.9</b>	<b>4.8</b>	<b>0.1</b>	<b>3.4</b>	<b>0.6</b>	--	--	--	--	--	--

<sup>1</sup> Most measurements were obtained from fruits in harvest 1.

<sup>2</sup> SS = Indicates sweetness, average of 3 melons per replication (12 total).

<sup>3</sup> Rating: 1 = yellow, 2 = pink, 3 = red, 4 = medium-dark red, 5 = blood red.

<sup>4</sup> Rating: 1=small (i.e. tomato), 3=medium, 5=large.

<sup>5</sup> Average number of hard seeds counted within 3 melons per replication (12 total).

<sup>6</sup> LD = Length and diameter ratio, average of 3 melons per replication (12 total).

<sup>7</sup> Rind = Rind thickness (mm), measured from rind to where white and colored flesh meet.

<sup>8</sup> Fruit pressure was taken by a penetrometer, Fruit Pressure Tester - FT011 from QA Supplies LLC, Norfolk Va.

<sup>9</sup> HH Percentage Rating Scale:

HH1: No crack in flesh

HH2: Slight crack in flesh

HH3: Small crack in flesh

HH4: Med. separation in flesh

HH5: Complete separation in flesh to rind.

\*\*HH4 & HH5 = Non-marketable