



**2013 Watermelon
Cultivar Trials**

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Hort. Series No. 207**

2013 North Carolina Watermelon Cultivar Trials

Hort. Series # 207

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General Cultural Practices

The watermelon trials were grown on black plastic mulch and fertigated with drip tube. Pesticides used on all plots were chemicals labeled for that crop, (2013 North Carolina Agricultural Chemicals Manual, (<http://ipm.ncsu.edu/Agchem/agchem.html>)).

Acknowledgments

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Disclaimer

This publication presents data from the cultivar evaluation trials conducted during 2013. 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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Triploid, Diploid, and Mini Triploid Watermelon Cultural Practices for 2013 Cultivar Trials, Central Crops Research Station, Clayton, NC

Introduction

Watermelon continues to be an important crop grown in North Carolina as the state was ranked seventh in production among U.S. states nationally in 2012 representing 6.4% of the nation's watermelon production. Approximately 8,300 acres valued at nearly \$34.9 million were produced and harvested in North Carolina in 2012. Growers in NC need to remain competitive in the market place and must grow and sell the best cultivars. More recently, in addition to yields, seed companies and markets have focused on specific traits such as lycopene and citrulline content, hollow heart incidence, seed trace size, and flesh firmness. We have committed more of our resources to the evaluation of many of these traits. In the tables that follow, the adaptability of the various red-flesh watermelons is evaluated, both for yields and quality. This should help the watermelon industry make informed decisions regarding newly released red-flesh cultivars or those that are being considered for release.

Materials and Methods

We have evaluated red-flesh standard watermelon types annually since 1989. We initiated the evaluation of mini triploid watermelon types in 2003. Before the growing season, companies which sell watermelon seeds were contacted to obtain seed for the watermelon cultivar trials.

Once all seed were obtained, they were planted into Poly growing transplant trays (Hummert Int.; Earth City, MO). Seeds of triploid cultigens were sown on 3 April, 2013. Seed of the diploid and mini triploid cultigens were sown on 4-5 April, 2013. The planting medium used was Fine Germinating Mix, a commercial soil less mix (Carolina Soil Company; Kinston, NC). Approximately 3 weeks after seeding, the plants were placed in a cold frame and hardened before being established in the field. Triploids, diploids, and mini triploids were established in the field on 14 May 2013. Fertilizer, 30 lb/acre N and 80 lb/acre K₂O, was incorporated into the beds on 23 April prior to the laying of black polyethylene plastic (0.70 mil thick high density plastic film, 48 inches wide; B.B. Hobbs, Clinton, NC). Fumigant (Telone C-17) was broadcast and incorporated into field on 9 November 2012 at 9.0 gallons/acre prior to the start of the growing season. Herbicides, Curbit at 4 pints/acre, Gramaxone at 3 pints/acre, and Prefar at 5 quarts/acre, were applied between the plastic beds for weed control on 8 and 18 May. Spacing between row middles was 10 feet for all watermelon types and in-row spacing was 2.5 feet for standard size triploid and diploid watermelons and 1 foot for mini triploid watermelons. Plot size for diploid and standard triploid size watermelons was one row, 10 plants per plot, 25 feet long with 10 feet alleys between plots. Plot size for the mini triploid watermelons was one row, 10 plants per plot, 10 feet long with 15 feet alleys between plots. At time of transplant, a starter solution was applied using 20-20-20 (0.5 lb/50 gallons water) and 5 oz. Coragen per 50 gallons water for insect control. Plots with missing plants were replanted approximately 7 days after planting to achieve 100% stand in most cases. For the 2013 growing season, two pollinizer cultivars were used to enhance pollination. The pollinizers used were 'SP-6' and 'Ace'. The pollinizer 'SP-6' was interplanted between plants 1 and 2 and then again after the tenth plant of each plot within the triploid watermelon plots. The pollinizer 'Ace' was interplanted between plants 4, 5, 7, and 8. Trickle irrigation was utilized (NETAFIM, 12 inch spacing, 0.24 gph; NETAFIM, Tel Aviv, Israel) over the growing season. Fertigation was initiated two weeks after planting and applied weekly during the planting season. A total of 100.4 lb/acre N and 200.8 lb/acre K₂O was drip applied through the season using a 4-0-8 liquid fertilizer. Cumulative amount of fertilizer applied for the season was 130.4, 0, and 280.8 lb/acre of N, P₂O₅, and K₂O, respectively. Insecticides were applied every week as a preventative measure beginning 6 June and on the following dates

(12, 19, and 26 June; 3, 10, 16, 17, 23, and 24 July; and 7 August). The following products were alternated during consecutive spray applications to avoid insect resistance: Asana, Fan Fare, Perm Up, and Phaser. To control birds such as crows that affected the trial, the following products were used; Migrate with Invisidye at the rate of 2.5 gal./acre (Migrate) and .32 oz./gal (Invisidye). Fungicides were similarly applied throughout the growing season at weekly intervals. The fungicide program that was implemented consisted of the following fungicide products which were alternated during consecutive spray applications to avoid disease resistance: Bravo, Kocide, Pristine, Previcur Flex, Penncozeb, and Ranman; and applied on the following dates: 6, 12, 19, and 26 June; 3, 10, 17, and 24 July; and 7 August.

There were five harvests for the standard triploid and diploid watermelon studies. There were a total of six harvests for the mini triploid watermelon study. The first harvest for the triploid test was 18 July. Subsequent harvests were 25 July; 1, 14, and 29 August. The first harvest for the diploid study was 23 July with subsequent harvests on 25 July; 1, 14, 29 August. The first harvest for the mini triploid trial was 11 July, and subsequent harvests were 18 and 25 July; and 1, 14, and 29 August. Each fruit was harvested when ripe, weighed and categorized statistically by size category. For the diploid and triploid watermelon test, fruits were placed in the following categories; < 7.9 lb, 8-9.9 lb, 10-11.9 lb, 12-15.9 lb, 16-17.9 lb, and 18 + lb. Fruits were considered marketable if they weighed at least 10 pounds. Smaller sized triploid fruit are increasing in demand with the most popular standard triploid fruit size being 12-16 lb. For the mini triploid trial, fruits were placed into the following categories; < 3lb, 3.0-3.9 lb, 4-7 lb, 7.1 – 8.0 lb, 8.1 – 9.0 lb, 9.1 – 10 lb, and > 10 lb. Fruits were considered marketable if they were within the 3 – 7 lb category. Evaluations of each watermelon entry included yield, fruit size, production earliness, soluble solids using a hand held digital refractometer, fruit shape and size, exterior and interior descriptions (rind pattern, length/width ratio, seed trace size, occurrence of hard seeds, hollow heart incidence and severity, and flesh color), and interior flesh firmness. Flesh firmness was taken by using a Penetrometer FT 011 with a 7/16” plunger tip, (QA Supplies LLC, Norfolk, Va.), and 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. Pressure was not taken on fruit with hollow heart. The reported measures on flesh firmness are an average of the five sample areas. Most of the quality measurements were taken at the first or second harvests.

2013 Trial Notice: The excessive rainfall throughout the growing season was very challenging for the standard size triploid test. Due to the slope of the field that the study was planted in, the entire first replication of the triploid study was not harvested as the plants did not grow off well nor set fruit well. There was also signs of disease present within this area of the field, although we were not able to determine what type of disease was present. The remaining replications fared better, but were not the best. The way the slope of the field ran, the replications that were towards the top of the slope produced better vines and fruit numbers and as the replications came down the slope, the smaller the vegetation and fruit size. Due to this, replications 2-4 were harvested and recorded and are used for analysis within this booklet. Another challenge that was encountered this year was from crows. Crows would continually fly into the plots and peck fruit before the fruit were ripe and cause the fruit to rot. This caused a reduction in the number of fruit harvested which in turn lowered overall yield totals among cultivars. We did apply a repellent to the fruit and plants, but it was not as effective as advertised. In my opinion, the fact that the rain reduced the growth of many of the vines in replications 1 and 2 which left many fruit exposed; the crows were drawn into the plot areas and began pecking. Once the crows discovered the watermelons, they continued to feed on watermelons across the field, even if the fruit were not exposed. For 2014, a more effective measure will be implemented to reduce the presence of crows within the plot areas. The diploid and mini triploid trials were not affected by the rainy

conditions as much, but were affected by crow; especially within the diploid trial. Luckily, the diploid fruit were mature enough and had not rotten so that we could collect numbers and weights from the pecked fruit and include those measures into our yield data.

Financial Support

In addition to seed companies, this program has been supported by the College of Life & Agricultural Sciences, North Carolina Agricultural Research Service, and the North Carolina Cooperative Extension Service.

Table 1. Triploid/Diploid Red-Flesh Watermelon Seed Sources and Descriptions; 2013.

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
1	7187	Nunhems	Indistinct, medium wide, medium to dark green stripes on light green background; uniform short blocky shape; sizes are mainly medium; Fruit has water soaking appearance next to the rind.
2	7197	Nunhems	Indistinct, medium wide, medium to dark green stripes on light green background; fruit shape is a consistent blocky; large fruit; good red flesh color; indistinct rind flesh delineation.
3	11051	Origene Seeds	Indistinct, medium to wide, very dark green strip on medium green background; round; medium size fruit; round fruit; excellent red flesh color
4	ACX 6177	Nunhems	Indistinct, medium wide, dark green stripes on light green background; mainly round, some are short; blocky; mainly medium size fruit; very good red flesh color, excellent rind flesh delineation.
5	Admiration	Syngenta	Indistinct, wide, dark green strips on light green background; mainly short blocky to stocky fruit; mainly medium to large size; excellent red flesh color; distinct rind flesh delineation.
6	Affirmed	Sakata	Indistinct, narrow to medium width, medium green stripes on a light green background; shape mainly a short blocky oval; size range from medium to large; good red flesh color; Indistinct, rind flesh delineation.
7	Bold Ruler	Sakata	Indistinct, medium width, medium to dark green stripes on light green background; shape is mainly short blocky oval; mainly medium size fruit, very good red color; indistinct rind flesh delineation.
8	Chunky	Willhite Seed	Indistinct, medium width, medium to dark green stripes on light green background; shape is blocky, some small fruit are short blocky oval; size is mainly medium to large; very good red flesh color; indistinct rind flesh delineation.
9	Citation	Sakata	Mainly distinct, narrow to medium width, very dark green strips on a medium green background; fruit are uniformly round; mainly smaller in size; deep red flesh color; good rind flesh delineation
10	Crunchy Red	Harris Moran	Indistinct, medium width, medium to dark green strips on light green background; shape is blocky and very uniform; mainly large with some medium size fruit; good red flesh color; indistinct rind flesh delineation.
11	Cut Above	Clifton Seed	Indistinct; medium width, medium to dark green stripes on light green background; short, blocky fruit and some round; size ranges from small to medium; average red flesh color; fairly distinct rind flesh delineation.
12	Cut Master	Willhite Seed	distinct, very narrow dark green stripes that protrude or are raised on fruit when ripe on a medium mainly dark background (appears as a solid dark green); uniform blocky fruit; size in medium to large; deep red flesh color; very thick rind but nice white rind- red flesh delineation.
13	Declaration	Nunhems	Indistinct, medium width, medium to dark green stripes on light green background; mainly oval to blocky fruit; size ranges from medium to large; good red flesh color; indistinct rind flesh delineation.
14	Distinction	Syngenta	Distinct, medium width, dark green stripes on light green background; round fruit, very uniform shape; mainly medium size fruit; nice deep red flesh color; excellent white rind red flesh delineation
15	Exclamation	Syngenta	Indistinct, medium to wide, dark green stripes on light green background; blocky fruit or slightly larger than round; mainly medium size; excellent red flesh color; excellent white rind red flesh delineation.
16	Fasination	Syngenta	Indistinct, medium width, very dark green stripes on light green background; oval to short blocky shapes; mainly medium to large size; excellent deep red flesh color; excellent rind flesh delineation; relative thin rind
17	Lajuya	Origene Seeds	Mainly distinct, narrow, very dark green stripes on medium to light green background; round fruit, small size; uniform shape and size; deep red flesh color; fairly distinct rind flesh delineation.

Table 1. Cont.

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
18	Liberty	Nunhems	Indistinct, medium wide, medium green stripes on light green background; mainly oval fruit; mainly medium size fruit; average red flesh color; indistinct rind flesh delineation.
19	Maxima	Origene Seeds	Mainly distinct, medium width, very dark green stripes on a medium to light green background (darker green appearing rind); main short oval to round; size is medium to large; good red flesh color; indistinct to fairly distinct rind flesh delineation.
20	NUN 01009	Nunhems	Indistinct, medium wide, medium green stripes on light green background; elongated fruit and generally large size; good red flesh color; indistinct rind flesh delineation.
21	Orange Crisp	US Seedless	Distinct, narrow width, dark green stripes with light green background; round; small to medium size fruit; good bright orange flesh; indistinct rind flesh delineation.
22	Permont	Clifton Seed	Indistinct, medium wide, medium to dark green stripes on a light background; blocky fruit mainly; size from medium to large; good red flesh color; indistinct rind flesh delineation.
23	Sugar Coat	Syngenta	Indistinct, medium wide, medium to dark green stripes on light green background; fruit were oval and blocky; mainly medium to large size fruit; deep red flesh color; Indinct rind flesh delineation; very thick rind.
24	Sugar Red	Syngenta	Indistinct, medium wide, medium to dark green stripes on light green background; fruit are oval or short blocky; mainly large sized fruit; thick rind; good red flesh color; indistinct rind flesh delineation.
25	SV0010WA	Seminis/Monsanto	Indistinct; medium to wide; very dark stripes on light green background; fruit are oval or short blocky; mainly medium to large size; good red flesh color; several fruit had internal necrosis in flesh; indistinct rind flesh delineation
26	SV0051WA	Seminis/Monsanto	Indistinct, medium to wide, medium to dark green stripes on light green background; mainly blocky fruit with smaller fruit being short block or almost round; size ranges from small to medium; deep red flesh color; indistinct rind flesh delineation.
27	SV0241WA	Seminis/Monsanto	Indistinct, medium width, dark green stripes on light green background; large fruit mainly blocky with some smaller fruit slightly longer than round; deep red flesh color; good rind flesh delineation;
28	SV2757WA	Seminis/Monsanto	Indistinct, medium wide, medium to dark green stripes on light green background; oval to short oval round; small to medium size fruit; excellent, deep red flesh color; thin rind with good rind flesh delineation.
29	SWT 0078	Sakata	Indistinct, medium wide, Medium to dark green strips on medium to light green background; uniformly and mainly round; generally medium size; excellent red flesh; indistinct rind flesh delineation.
30	SWT 0079	Sakata	Indistinct, medium wide, medium to dark green stripes on light green background; oval to short blocky; medium to large size; very good red flesh color; indistinct rind flesh delineation; thick rind.
31	SWT 0082	Sakata	Indistinct, medium wide, medium to dark green stripes on light green background; mainly blocky fruit or oval; mainly medium size; deep red flesh color; indistinct rind flesh delineation.

Table 1. Cont.

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
32	Tri-X- 313	Syngenta	Indistinct, medium wide, dark green stripes on light green background; uniform blocky oval shape, sizes mainly medium to large; average red flesh color; indistinct rind flesh delineation.
33	UG 711	United Genetics	Indistinct, medium wide, very dark stripes on medium green background; uniform round fruit; uniformly small sized fruit; average red flesh color, thin rind; distinct rind flesh delineation.
34	WDL 0409	Syngenta	Indistinct, medium wide, dark green stripes on light green background; short oval or round fruit; size was generally small to medium; good red flesh color; water soaked appeared at rind flesh interface; indistinct rind flesh delineation.
35	WDL 1419	Syngenta	Indistinct, medium wide, medium to dark green stripes on light green background; mainly oval to blocky; size range from medium to large; deep red flesh color; fairly distinct rind flesh delineation.
36	WDL 9409	Syngenta	Indistinct, medium to wide, dark green stripes on light green background; mainly oval fruit; size ranging from small to medium; deep red flesh color; distinct rind flesh interface;
37	WM 8317	Seminis/Monsanto	Fruit appears a solid medium to dark green; round to slightly longer than round; mainly medium size fruit deep red flesh color; water soaking at rind flesh interface; indistinct rind flesh delineation.
38	WT 0166	Sakata	Indistinct, medium wide, dark green stripes on light green background; mainly round to slightly larger than round fruit shape; generally small fruit; good red flesh color, thick rind with indistinct rind flesh delineation.
39	Yuval	Origene Seeds	Indistinct, medium wide, dark green stripes with a light green background; medium to large size fruit are mainly oval; smaller sized fruit are round; excellent red flesh color; indistinct rind flesh delineation.

Figure 1. Triploid Cultivar Pictures



Figure 1. Triploid Cultivar Pictures

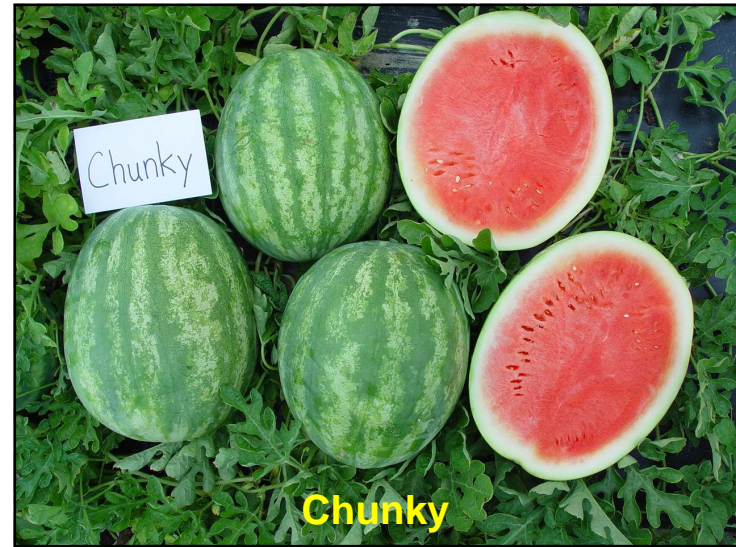


Figure 1. Triploid Cultivar Pictures

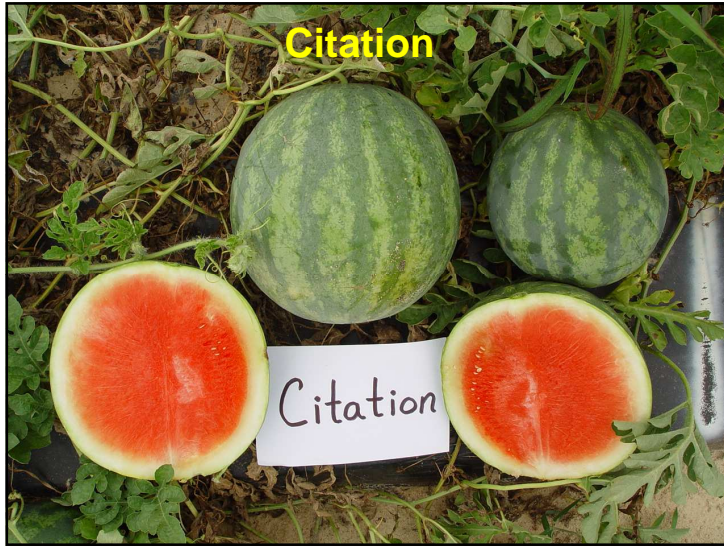


Figure 1. Triploid Cultivar Pictures

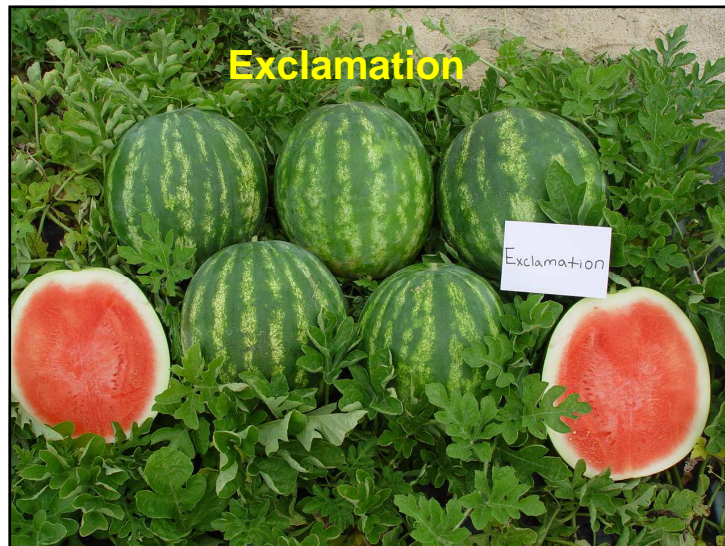
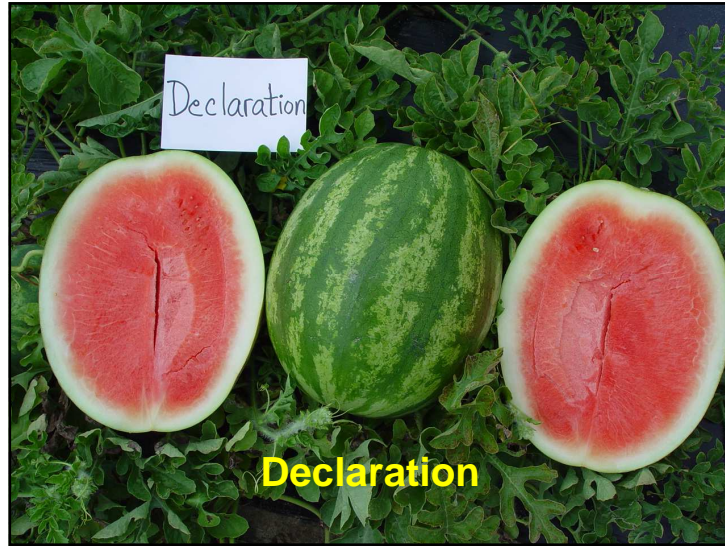


Figure 1. Triploid Cultivar Pictures



Figure 1. Triploid Cultivar Pictures

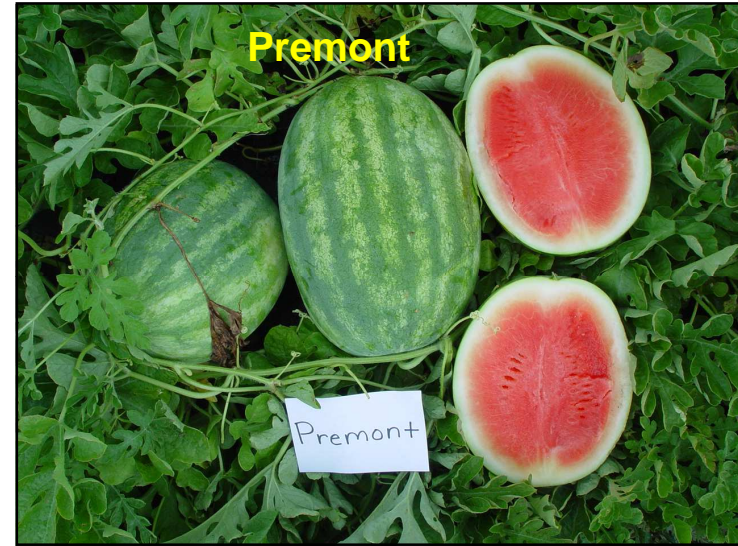
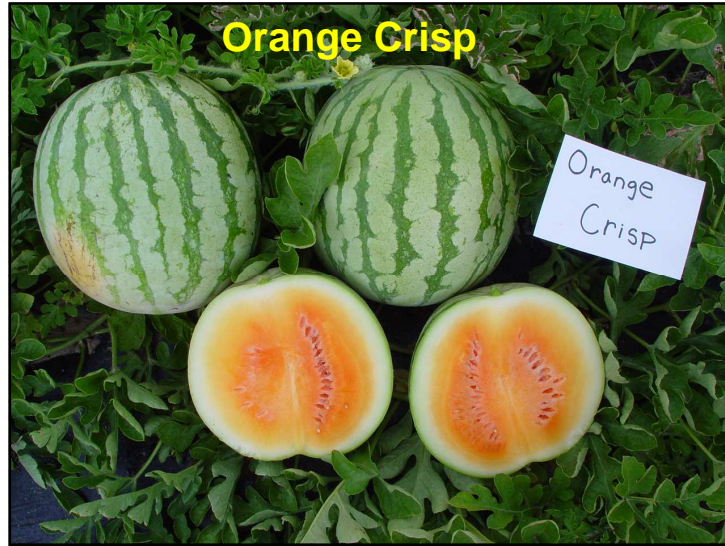


Figure 1. Triploid Cultivar Pictures



Figure 1. Triploid Cultivar Pictures



Figure 1. Triploid Cultivar Pictures

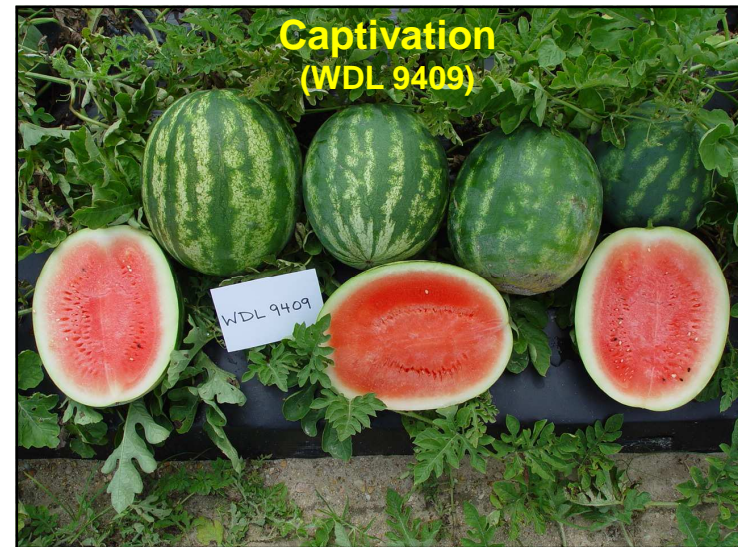


Figure 1. Triploid Cultivar Pictures

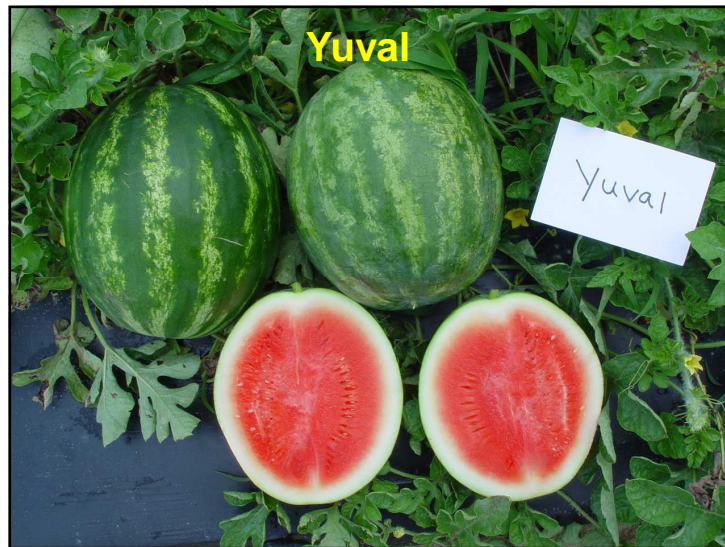


Table 2. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for harvest 1 by weight classes, (per acre), including average fruit size¹. Clayton, N.C. 2013.

Cultivar	Seed Company	Rank ¹	Fruit size category						Total No./Mkt No./		Avg wt.
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+	Acre	Acre ²	
7187	Nunhems	4	58	0	116	407	58	0	639	581	13.1
7197	Nunhems	16	0	58	116	232	58	0	465	407	13.7
11051	Origene seeds	39	0	0	58	58	0	0	116	116	12.0
ACX 6177	Nunhems	29	58	58	116	58	58	0	349	232	12.6
Admiration	Syngenta	33	0	0	116	58	0	0	174	174	12.6
Affirmed	Sakata	1	232	58	116	349	174	0	929	639	12.9
Bold Ruler	Sakata	1	58	0	116	523	0	0	697	639	13.0
Chunky	Willhite Seed	6	58	116	116	290	0	116	697	523	11.8
Citation	Sakata	25	232	0	58	232	0	0	523	290	10.4
Crunchy Red	Harris Moran	33	0	58	58	116	0	0	232	174	12.0
Cut Above	Clifton Seed	10	116	290	290	116	58	0	871	465	11.4
Cut Master	Willhite Seed	33	174	58	0	174	0	0	407	174	11.8
Declaration	Nunhems	33	58	0	58	116	0	0	232	174	10.8
Distinction	Syngenta	19	58	58	58	232	58	0	465	349	14.0
Exclamation	Syngenta	19	0	58	116	116	116	0	407	349	13.4
Fascination	Syngenta	16	0	58	116	174	58	58	465	407	13.9
LaJuya	Origene Seeds	29	232	58	174	58	0	0	523	232	10.7
Liberty	Nunhems	10	0	116	116	349	0	0	581	465	12.0
Maxima	Origene seeds	33	174	58	58	58	58	0	407	174	11.7
NUN 01009	Nunhems	16	0	116	58	116	232	0	523	407	14.5
Orange Crisp	US Seedless	19	232	174	116	232	0	0	755	349	9.6
Premont	Clifton Seed	6	0	0	58	290	116	58	523	523	17.4
Sugar Coat	Syngenta	10	0	0	0	349	58	58	465	465	15.3
Sugar Red	Syngenta	25	174	0	58	174	0	58	465	290	12.7
SV0010WA	Seminis/Monsanto	29	58	116	116	58	0	58	407	232	11.5
SV0051WA	Seminis/Monsanto	10	58	116	58	407	0	0	639	465	12.6
SV0241WA	Seminis/Monsanto	25	349	58	0	174	58	58	697	290	11.3
SV2757WA	Seminis/Monsanto	10	0	58	58	290	116	0	523	465	13.2
SWT 0078	Sakata	19	58	116	174	407	0	0	523	349	11.7
SWT 0079	Sakata	25	58	174	116	58	58	58	523	290	14.0
SWT 0082	Sakata	1	116	58	232	174	0	0	813	639	11.4
Tri-X-313	Syngenta	19	0	0	232	58	58	0	349	349	12.1
UG 711	United Genetics	6	232	232	116	407	0	0	987	523	10.5
WDL 0409	Syngenta	33	116	174	58	58	58	0	465	174	10.3
WDL 1419	Syngenta	4	58	58	174	349	58	0	697	581	12.9
WDL 9409	Syngenta	39	116	0	0	58	0	58	232	116	15.9
WM 8317	Seminis/Monsanto	19	0	58	0	232	116	0	407	349	14.3
XWT 0166	Sakata	10	0	232	116	290	58	0	697	465	13.1
Yuval	Origene seeds	6	0	58	116	232	0	174	581	523	14.8
Average		--	80	74	98	209	43	19	524	369	12.6
LSD (0.05)		--	231	213	243	278	143	99	497	374	--

¹ Ranked according to total marketable number.

² Includes fruit ≥ 10 pounds.

Table 3. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for early season harvest, (Harvest 1). Clayton, NC, 2013.

<u>Cultivar</u>	<u>Percentages¹ (%) by Fruit Size Category</u>					
	<u><7.9</u>	<u>8-9.9</u>	<u>10-11.9</u>	<u>12-15.9</u>	<u>16-17.9</u>	<u>18 +</u>
7187	9	0	18	64	9	0
7197	0	13	25	50	13	0
11051	0	0	50	50	0	0
ACX 6177	17	17	33	17	17	0
Admiration	0	0	67	33	0	0
Affirmed	25	6	13	38	19	0
Bold Ruler	8	0	17	75	0	0
Chunky	8	17	17	42	0	17
Citation	44	0	11	44	0	0
Crunchy Red	0	25	25	50	0	0
Cut Above	13	33	33	13	7	0
Cut Master	43	14	0	43	0	0
Declaration	25	0	25	50	0	0
Distinction	13	13	13	50	13	0
Exclamation	0	14	29	29	29	0
Fascination	0	13	25	37	13	13
LaJuya	44	11	33	11	0	0
Liberty	0	20	20	60	0	0
Maxima	43	14	14	14	14	0
NUN 01009	0	22	11	22	44	0
Orange Crisp	31	23	15	31	0	0
Premont	0	0	11	56	22	11
Sugar Coat	0	0	0	75	13	13
Sugar Red	37	0	13	37	0	13
SV0010WA	14	29	29	14	0	14
SV0051WA	9	18	9	64	0	0
SV0241WA	50	8	0	25	8	8
SV2757WA	0	11	11	56	22	0
SWT 0078	11	22	33	78	0	0
SWT 0079	11	33	22	11	11	11
SWT 0082	14	7	29	21	0	0
Tri-X-313	0	0	67	17	17	0
UG 711	24	24	12	41	0	0
WDL 0409	25	37	13	13	13	0
WDL 1419	8	8	25	50	8	0
WDL 9409	50	0	0	25	0	25
WM 8317	0	14	0	57	29	0
XWT 0166	0	33	17	42	8	0
Yuval	0	10	20	40	0	30
Average	15	13	21	39	8	4

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 4. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for harvest 2 by weight classes, (per acre), including average fruit size. Clayton, N.C. 2013.

Cultivar	Seed Company	Rank	Fruit size category (lb)						Total No./ Acre	Mkt No./ Acre²	Avg wt.
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +			
7187	Nunhems	36	0	174	58	174	58	58	523	349	12.4
7197	Nunhems	22	0	116	232	174	116	116	755	639	13.9
11051	Origene seeds	30	58	116	290	174	0	58	697	523	12.5
ACX 6177	Nunhems	8	0	0	116	407	349	58	929	929	14.5
Admiration	Syngenta	16	0	290	116	290	116	174	987	697	13.8
Affirmed	Sakata	38	116	116	0	174	116	0	523	290	12.7
Bold Ruler	Sakata	16	0	116	116	465	116	0	813	697	13.2
Chunky	Willhite Seed	26	0	0	58	407	116	0	581	581	13.8
Citation	Sakata	30	116	116	349	174	0	0	755	523	10.2
Crunchy Red	Harris Moran	1	58	58	232	465	174	232	1220	1104	14.6
Cut Above	Clifton Seed	3	58	58	232	523	116	116	1104	987	13.2
Cut Master	Willhite Seed	26	58	0	58	523	0	0	639	581	12.0
Declaration	Nunhems	3	0	58	232	232	349	174	1045	987	14.8
Distinction	Syngenta	8	0	58	174	465	58	232	987	929	14.8
Exclamation	Syngenta	2	58	116	174	349	290	232	1220	1045	15.6
Fascination	Syngenta	11	0	0	407	407	58	0	871	871	12.6
LaJuya	Origene Seeds	33	174	0	174	232	58	0	639	465	9.8
Liberty	Nunhems	26	58	58	174	349	58	0	697	581	12.8
Maxima	Origene seeds	40	58	116	174	0	58	0	407	232	12.1
NUN 01009	Nunhems	8	0	174	174	407	174	174	1104	929	13.1
Orange Crisp	US Seedless	30	58	116	0	290	58	174	697	523	14.1
Premont	Clifton Seed	12	0	0	174	349	58	232	813	813	15.0
Sugar Coat	Syngenta	16	0	58	174	232	58	232	755	697	14.5
Sugar Red	Syngenta	3	116	0	58	523	0	407	1104	987	13.4
SV0010WA	Seminis/Monsanto	13	0	116	174	349	116	116	871	755	13.8
SV0051WA	Seminis/Monsanto	13	58	0	0	290	232	232	813	755	17.0
SV0241	Seminis/Monsanto	38	0	58	0	232	58	0	349	290	13.2
SV2757WA	Seminis/Monsanto	16	116	290	232	349	116	0	1104	697	11.4
SWT 0078	Sakata	22	58	116	232	349	58	0	813	639	12.5
SWT 0079	Sakata	3	0	0	639	349	0	0	987	987	11.6
SWT 0082	Sakata	22	58	58	116	465	58	0	755	639	12.6
Tri-X-313	Syngenta	3	0	0	407	407	58	116	987	987	13.6
UG 711	United Genetics	36	58	116	174	116	58	0	523	349	10.3
WDL 0409	Syngenta	26	0	58	58	349	116	58	639	581	14.2
WDL 1419	Syngenta	16	0	58	232	349	58	58	755	697	12.2
WDL 9409	Syngenta	16	58	0	116	232	174	174	755	697	15.2
WM 8317	Seminis/Monsanto	33	174	116	58	232	174	0	755	465	12.2
XWT 0166	Sakata	13	0	0	116	523	0	116	755	755	13.6
Yuval	Origene seeds	22	0	174	116	290	116	116	813	639	13.9
Average		--	40	79	170	325	101	94	809	690	13.2
LSD (0.05)		--	143	210	282	447	203	233	646	596	--

¹ Ranked according to total marketable number.

² Includes fruit ≥ 10 pounds.

Table 5. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for harvest 2. Clayton, NC, 2013.

<u>Cultivar</u>	<u>Percentages¹ (%) by Fruit Size Category</u>					
	<u><7.9</u>	<u>8-9.9</u>	<u>10-11.9</u>	<u>12-15.9</u>	<u>16-17.9</u>	<u>18 +</u>
7187	0	33	11	33	11	11
7197	0	15	31	23	15	15
11051	8	17	42	25	0	8
ACX 6177	0	0	13	44	38	6
Admiration	0	29	12	29	12	18
Affirmed	22	22	0	33	22	0
Bold Ruler	0	14	14	57	14	0
Chunky	0	0	10	70	20	0
Citation	15	15	46	23	0	0
Crunchy Red	5	5	19	38	14	19
Cut Above	5	5	21	47	11	11
Cut Master	9	0	9	82	0	0
Declaration	0	6	22	22	33	17
Distinction	0	6	18	47	6	24
Exclamation	5	10	14	29	24	19
Fascination	0	0	47	47	7	0
LaJuya	27	0	27	36	9	0
Liberty	8	8	25	50	8	0
Maxima	14	29	43	0	14	0
NUN 01009	0	16	16	37	16	16
Orange Crisp	8	17	0	42	8	25
Premont	0	0	21	43	7	29
Sugar Coat	0	8	23	31	8	31
Sugar Red	11	0	5	47	0	37
SV0010WA	0	13	20	40	13	13
SV0051WA	7	0	0	36	29	29
SV0241WA	0	17	0	67	17	0
SV2757WA	11	26	21	32	11	0
SWT 0078	7	14	29	43	7	0
SWT 0079	0	0	65	35	0	0
SWT 0082	8	8	15	62	8	0
Tri-X-313	0	0	41	41	6	12
UG 711	11	22	33	22	11	0
WDL 0409	0	9	9	55	18	9
WDL 1419	0	8	31	46	8	8
WDL 9409	8	0	15	31	23	23
WM 8317	23	15	8	31	23	0
XWT 0166	0	0	15	69	0	15
Yuval	0	21	14	36	14	14
Average	6	10	21	41	12	10

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 6. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for harvest 3 by weight classes, (per acre), including average fruit size. Clayton, N.C. 2013.

Cultivar	Seed Company	Rank ¹	Fruit size category (lb)						Total No./ Acre	Mkt No./ Acre ²	Avg wt. ³
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +			
7187	Nunhems	27	290	58	0	58	58	0	465	116	8.4
7197	Nunhems	21	116	58	0	58	58	58	349	174	10.4
11051	Origene seeds	2	174	58	174	349	116	58	929	697	12.9
ACX 6177	Nunhems	11	116	116	174	58	0	0	465	232	10.0
Admiration	Syngenta	7	58	0	116	232	0	0	407	349	11.3
Affirmed	Sakata	9	0	0	174	116	0	0	290	290	12.0
Bold Ruler	Sakata	11	290	0	0	174	0	58	523	232	9.9
Chunky	Willhite Seed	31	116	0	0	0	0	58	174	58	10.5
Citation	Sakata	27	116	116	58	58	0	0	349	116	9.6
Crunchy Red	Harris Moran	11	0	58	0	116	116	0	290	232	13.1
Cut Above	Clifton Seed	11	58	58	58	116	58	0	349	232	12.0
Cut Master	Willhite Seed	11	0	0	58	58	58	58	232	232	15.1
Declaration	Nunhems	11	58	116	58	116	58	0	407	232	11.9
Distinction	Syngenta	5	116	0	58	290	0	58	523	407	12.0
Exclamation	Syngenta	2	58	58	58	232	0	407	813	697	15.2
Fascination	Syngenta	31	58	58	0	58	0	0	174	58	10.1
LaJuya	Origene Seeds	21	349	58	0	174	0	0	581	174	8.9
Liberty	Nunhems	31	116	0	0	58	0	0	174	58	9.2
Maxima	Origene seeds	9	116	58	0	232	0	58	465	290	11.5
NUN 01009	Nunhems	21	0	0	58	116	0	0	174	174	12.4
Orange Crisp	US Seedless	39	174	116	0	0	0	0	290	0	6.6
Premont	Clifton Seed	11	0	116	0	232	0	0	349	232	13.3
Sugar Coat	Syngenta	5	0	0	116	174	58	58	407	407	14.5
Sugar Red	Syngenta	31	58	116	0	58	0	0	232	58	10.1
SV0010WA	Seminis/Monsanto	27	58	116	0	0	0	116	290	116	13.5
SV0051WA	Seminis/Monsanto	31	58	58	0	0	58	0	174	58	11.3
SV0241WA	Seminis/Monsanto	7	116	174	58	290	0	0	639	349	11.0
SV2757WA	Seminis/Monsanto	39	0	0	0	0	0	0	0	0	0.0
SWT 0078	Sakata	21	116	58	0	116	0	58	349	174	10.4
SWT 0079	Sakata	31	116	58	58	0	0	0	232	58	8.5
SWT 0082	Sakata	21	0	0	58	116	0	0	174	174	13.0
Tri-X-313	Syngenta	31	116	0	0	0	0	58	174	58	10.0
UG 711	United Genetics	21	0	58	116	58	0	0	232	174	10.7
WDL 0409	Syngenta	4	58	0	116	174	58	116	523	465	14.2
WDL 1419	Syngenta	31	0	0	58	0	0	0	58	58	11.5
WDL 9409	Syngenta	1	0	116	174	465	116	58	929	813	14.5
WM 8317	Seminis/Monsanto	11	0	58	0	116	58	58	290	232	15.8
XWT 0166	Sakata	27	116	58	0	116	0	0	290	116	9.4
Yuval	Origene seeds	11	0	0	116	116	0	0	232	232	12.7
Average		--	82	51	49	121	22	34	359	226	11.2
LSD (0.05)		--	215	159	151	262	112	177	464	367	--

¹ Ranked according to total marketable number.

² Includes fruit ≥ 10 pounds.

³ Due to variation between replications in crop development, some replicate plots contained no fruit. When analyzed, if no fruit were produced in a given plot, the default weight was 0.0. Thus, some cultivar average weights may be lower than what is reported.

Table 7. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for late season harvest, (Harvest 3). Clayton, NC, 2013.

Cultivar	Percentages¹ (%) by Fruit Size Category					
	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
7187	63	13	0	13	13	0
7197	33	17	0	17	17	17
11051	19	6	19	38	12	6
ACX 6177	25	25	37	13	0	0
Admiration	14	0	29	57	0	0
Affirmed	0	0	0	0	0	0
Bold Ruler	56	0	0	33	0	11
Chunky	67	0	0	0	0	33
Citation	33	33	17	17	0	0
Crunchy Red	0	20	0	40	40	0
Cut Above	17	17	17	33	17	0
Cut Master	0	0	25	25	25	25
Declaration	14	29	14	29	14	0
Distinction	22	0	11	56	0	11
Exclamation	7	7	7	29	0	50
Fascination	33	33	0	33	0	0
LaJuya	60	10	0	30	0	0
Liberty	67	0	0	33	0	0
Maxima	25	13	0	50	0	13
NUN 01009	0	0	33	67	0	0
Orange Crisp	60	40	0	0	0	0
Premont	0	33	0	67	0	0
Sugar Coat	0	0	29	43	14	14
Sugar Red	25	50	0	25	0	0
SV0010WA	20	40	0	0	0	40
SV0051WA	33	33	0	0	33	0
SV0241WA	18	27	9	45	0	0
SV2757WA	0	0	0	0	0	0
SWT 0078	33	17	0	33	0	17
SWT 0079	50	25	25	0	0	0
SWT 0082	0	0	33	67	0	0
Tri-X-313	67	0	0	0	0	33
UG 711	0	25	50	25	0	0
WDL 0409	11	0	22	33	11	22
WDL 1419	0	0	100	0	0	0
WDL 9409	0	12	19	50	12	6
WM 8317	0	20	0	40	20	20
XWT 0166	40	20	0	40	0	0
Yuval	0	0	50	50	0	0
Average	22	14	15	30	5	8

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 8. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for harvest 4 by various weight classes, (per acre), including average fruit size. Clayton, N.C. 2013.

Cultivar	Seed Company	Rank ¹	Fruit size category (lb)						Total No./ Acre	Mkt No./ Acre ²	Avg wt. ³
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+			
7187	Nunhems	13	58	116	58	116	58	0	407	232	10.6
7197	Nunhems	13	116	58	0	174	58	0	407	232	9.6
11051	Origene seeds	3	232	116	174	232	116	58	929	581	11.5
ACX 6177	Nunhems	13	58	0	58	58	0	116	290	232	15.0
Admiration	Syngenta	31	58	174	0	116	0	0	349	116	10.5
Affirmed	Sakata	13	0	174	116	58	0	58	407	232	12.7
Bold Ruler	Sakata	22	0	58	0	116	58	0	232	174	13.6
Chunky	Willhite Seed	22	0	58	58	116	0	0	232	174	12.0
Citation	Sakata	31	116	58	116	0	0	0	290	116	7.7
Crunchy Red	Harris Moran	5	58	0	58	174	116	58	465	407	13.1
Cut Above	Clifton Seed	10	0	58	58	116	116	0	349	290	14.2
Cut Master	Willhite Seed	7	0	58	116	174	58	0	407	349	12.0
Declaration	Nunhems	37	0	0	0	58	0	0	58	58	15.7
Distinction	Syngenta	31	58	174	0	116	0	0	349	116	9.6
Exclamation	Syngenta	13	0	0	0	174	0	58	232	232	15.3
Fascination	Syngenta	22	0	0	58	58	58	0	174	174	14.1
LaJuya	Origene Seeds	13	116	58	58	116	58	0	407	232	10.2
Liberty	Nunhems	13	0	58	0	58	58	116	290	232	16.2
Maxima	Origene seeds	5	58	0	58	0	0	349	465	407	14.2
NUN 01009	Nunhems	4	0	58	116	232	116	58	581	523	14.3
Orange Crisp	US Seedless	31	174	0	0	0	58	58	290	116	11.5
Premont	Clifton Seed	7	58	116	116	116	58	58	523	349	13.6
Sugar Coat	Syngenta	7	116	116	116	174	58	0	581	349	10.9
Sugar Red	Syngenta	10	0	58	58	116	58	58	349	290	13.9
SV0010WA	Seminis/Monsanto	1	58	58	407	290	116	0	929	813	12.2
SV0051WA	Seminis/Monsanto	37	58	116	0	0	58	0	232	58	9.6
SV0241WA	Seminis/Monsanto	22	58	116	58	58	58	0	349	174	11.0
SV2757WA	Seminis/Monsanto	31	0	58	58	58	0	0	174	116	10.3
SWT 0078	Sakata	13	58	0	58	116	58	0	290	232	12.2
SWT 0079	Sakata	40	58	174	0	0	0	0	232	0	8.8
SWT 0082	Sakata	22	58	116	0	116	0	58	349	174	12.7
Tri-X-313	Syngenta	22	0	0	174	0	0	0	174	174	10.9
UG 711	United Genetics	31	290	174	58	58	0	0	581	116	8.8
WDL 0409	Syngenta	37	58	174	58	0	0	0	290	58	9.5
WDL 1419	Syngenta	22	0	58	58	0	58	58	232	174	12.5
WDL 9409	Syngenta	13	0	58	58	174	0	0	290	232	12.3
WM 8317	Seminis/Monsanto	10	116	58	116	174	0	0	465	290	10.6
XWT 0166	Sakata	22	116	232	58	58	0	58	523	174	9.9
Yuval	Origene seeds	2	58	58	232	116	58	232	755	639	13.6
Average		--	58	77	71	100	39	37	383	247	12.0
LSD (0.05)		--	209	185	164	195	130	153	422	353	--

¹ Ranked according to total marketable number.

² Includes fruit ≥ 10 pounds.

³ Due to variation between replications in crop development, some replicate plots contained no fruit. When analyzed, if no fruit were produced in a given plot, the default weight was 0.0. Thus, some cultivar average weights may be lower than what is reported.

Table 9. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for Harvest 4. Clayton, NC, 2013.

Cultivar	Percentages¹ (%) by Fruit Size Category					
	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
7187	14	29	14	29	14	0
7197	29	14	0	43	14	0
11051	25	13	19	25	13	6
ACX 6177	20	0	20	20	0	40
Admiration	17	50	0	33	0	0
Affirmed	0	43	29	14	0	14
Bold Ruler	0	25	0	50	25	0
Chunky	0	25	25	50	0	0
Citation	40	20	40	0	0	0
Crunchy Red	13	0	13	37	25	13
Cut Above	0	17	17	33	33	0
Cut Master	0	14	29	43	14	0
Declaration	0	0	0	100	0	0
Distinction	17	50	0	33	0	0
Exclamation	0	0	0	75	0	25
Fascination	0	0	33	33	33	0
LaJuya	29	14	14	29	14	0
Liberty	0	20	0	20	20	40
Maxima	13	0	13	0	0	75
NUN 01009	0	10	20	40	20	10
Orange Crisp	60	0	0	0	20	20
Premont	11	22	22	22	11	11
Sugar Coat	20	20	20	30	10	0
Sugar Red	0	17	17	33	17	17
SV0010WA	6	6	44	31	13	0
SV0051WA	25	50	0	0	25	0
SV0241WA	17	33	17	17	17	0
SV2757WA	0	33	33	33	0	0
SWT 0078	20	0	20	40	20	0
SWT 0079	25	75	0	0	0	0
SWT 0082	17	33	0	33	0	17
Tri-X-313	0	0	100	0	0	0
UG 711	50	30	10	10	0	0
WDL 0409	20	60	20	0	0	0
WDL 1419	0	25	25	0	25	25
WDL 9409	0	20	20	60	0	0
WM 8317	25	13	25	37	0	0
XWT 0166	22	44	11	11	0	11
Yuval	8	8	31	15	8	31
Average	13	21	19	27	10	10

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 10. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for harvest 5 by various weight classes, (per acre), including average fruit size. Clayton, N.C. 2013.

Cultivar	Seed Company	Rank ¹	Fruit size category (lb)						Total No./ Acre	Mkt No./ Acre ²	Avg wt. ³
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +			
7187	Nunhems	21	58	349	290	116	0	0	813	407	10.0
7197	Nunhems	37	0	174	116	0	0	0	290	116	9.8
11051	Origene seeds	5	58	58	232	407	58	0	813	697	13.0
ACX 6177	Nunhems	8	0	116	232	290	58	58	755	639	12.9
Admiration	Syngenta	27	58	174	0	174	0	58	465	232	12.8
Affirmed	Sakata	1	58	58	465	232	116	58	987	871	12.8
Bold Ruler	Sakata	10	58	232	232	290	0	0	813	523	11.1
Chunky	Willhite Seed	33	0	116	58	116	0	0	290	174	11.2
Citation	Sakata	39	58	116	58	0	0	0	232	58	9.5
Crunchy Red	Harris Moran	3	116	232	174	290	232	58	1104	755	12.9
Cut Above	Clifton Seed	14	58	174	116	290	0	58	697	465	12.4
Cut Master	Willhite Seed	21	0	174	232	174	0	0	581	407	11.2
Declaration	Nunhems	14	0	58	116	174	58	116	523	465	13.9
Distinction	Syngenta	24	0	174	116	116	58	0	465	290	11.0
Exclamation	Syngenta	14	0	0	174	116	116	58	465	465	14.9
Fascination	Syngenta	33	0	116	58	0	0	116	290	174	14.1
LaJuya	Origene Seeds	33	58	58	58	116	0	0	290	174	10.6
Liberty	Nunhems	10	58	232	232	232	58	0	813	523	11.2
Maxima	Origene seeds	27	0	116	0	232	0	0	349	232	11.3
NUN 01009	Nunhems	8	58	174	290	174	58	116	871	639	13.4
Orange Crisp	US Seedless	39	58	58	0	58	0	0	174	58	10.0
Premont	Clifton Seed	21	116	174	58	349	0	0	697	407	12.0
Sugar Coat	Syngenta	14	0	232	116	290	58	0	697	465	11.2
Sugar Red	Syngenta	1	58	232	232	174	174	290	1162	871	14.9
SV0010WA	Seminis/Monsanto	10	0	0	58	232	174	58	523	523	14.3
SV0051WA	Seminis/Monsanto	14	0	58	0	232	116	116	523	465	14.3
SV0241WA	Seminis/Monsanto	24	0	58	58	116	58	58	349	290	15.0
SV2757WA	Seminis/Monsanto	27	58	116	116	116	0	0	407	232	9.8
SWT 0078	Sakata	14	58	174	174	232	0	58	697	465	11.4
SWT 0079	Sakata	3	0	174	116	465	58	116	929	755	11.7
SWT 0082	Sakata	5	0	58	290	232	58	116	755	697	14.2
Tri-X-313	Syngenta	27	58	232	58	58	58	58	523	232	14.2
UG 711	United Genetics	27	58	174	116	116	0	0	465	232	9.4
WDL 0409	Syngenta	24	0	290	116	174	0	0	581	290	11.4
WDL 1419	Syngenta	33	0	0	116	58	0	0	174	174	11.7
WDL 9409	Syngenta	27	0	174	174	0	0	58	407	232	11.2
WM 8317	Seminis/Monsanto	14	0	58	174	174	58	58	523	465	13.2
XWT 0166	Sakata	10	0	349	174	116	58	174	871	523	11.8
Yuval	Origene seeds	5	58	116	349	174	58	116	871	697	12.2
Average		--	31	144	147	177	45	51	596	420	12.2
LSD (0.05)		--	118	282	312	315	157	163	749	609	--

¹ Ranked according to total marketable number.

² Includes fruit ≥ 10 pounds.

³ Due to variation between replications in crop development, some replicate plots contained no fruit. When analyzed, if no fruit were produced in a given plot, the default weight was 0.0. Thus, some cultivar average weights may be lower than what is reported.

Table 11. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for Harvest 5. Clayton, NC, 2013.

Cultivar	Percentages¹ (%) by Fruit Size Category					
	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
7187	7	43	36	14	0	0
7197	0	60	40	0	0	0
11051	7	7	29	50	7	0
ACX 6177	0	15	31	38	8	8
Admiration	13	37	0	37	0	13
Affirmed	6	6	47	24	12	6
Bold Ruler	7	29	29	36	0	0
Chunky	0	40	20	40	0	0
Citation	25	50	25	0	0	0
Crunchy Red	11	21	16	26	21	5
Cut Above	8	25	17	42	0	8
Cut Master	0	30	40	30	0	0
Declaration	0	11	22	33	11	22
Distinction	0	37	25	25	13	0
Exclamation	0	0	37	25	25	13
Fascination	0	40	20	0	0	40
LaJuya	20	20	20	40	0	0
Liberty	7	29	29	29	7	0
Maxima	0	33	0	67	0	0
NUN 01009	7	20	33	20	7	13
Orange Crisp	33	33	0	33	0	0
Premont	17	25	8	50	0	0
Sugar Coat	0	33	17	42	8	0
Sugar Red	5	20	20	15	15	25
SV0010WA	0	0	11	44	33	11
SV0051WA	0	11	0	44	22	22
SV0241WA	0	17	17	33	17	17
SV2757WA	14	29	29	29	0	0
SWT 0078	8	25	25	33	0	8
SWT 0079	0	19	13	50	6	13
SWT 0082	0	8	38	31	8	15
Tri-X-313	11	44	11	11	11	11
UG 711	13	37	25	25	0	0
WDL 0409	0	50	20	30	0	0
WDL 1419	0	0	67	33	0	0
WDL 9409	0	43	43	0	0	14
WM 8317	0	11	33	33	11	11
XWT 0166	0	40	20	13	7	20
Yuval	7	13	40	20	7	13
Average	6	25	24	31	7	8

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 12. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for cumulative harvests, (5), by various weight classes (per acre) including fruit number per plant. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank</u> ¹	<u>Fruit size category (lb)</u>						<u>Total</u>	<u>Total</u>	<u>Fruit No./</u>
		<u><7.9</u>	<u>8-9.9</u>	<u>10-11.9</u>	<u>12-15.9</u>	<u>16-17.9</u>	<u>18 +</u>	<u>Number</u>	<u>Mkt. No.</u> ²	<u>Plant</u>
7187	26	465	697	523	871	232	58	2846	1684	1.6
7197	29	232	465	465	639	290	174	2265	1568	1.3
11051	5	523	349	929	1220	290	174	3485	2614	2.0
ACX 6177	13	232	290	697	871	465	232	2788	2265	1.6
Admiration	29	174	639	349	871	116	232	2381	1568	1.4
Affirmed	10	407	407	871	929	407	116	3136	2323	1.8
Bold Ruler	13	407	407	465	1568	174	0	3078	2265	1.8
Chunky	32	174	290	290	929	116	174	1975	1510	1.1
Citation	39	639	407	639	465	0	0	2149	1104	1.2
Crunchy Red	3	232	407	523	1162	639	349	3311	2672	1.9
Cut Above	7	290	639	755	1162	349	174	3369	2439	1.9
Cut Master	25	232	290	465	1104	116	58	2265	1742	1.3
Declaration	19	116	232	465	697	465	290	2265	1917	1.3
Distinction	15	232	465	407	1220	174	290	2788	2091	1.6
Exclamation	1	116	232	523	987	523	755	3136	2788	1.8
Fascination	26	58	232	639	697	174	174	1975	1684	1.1
LaJuya	37	929	232	465	697	116	0	2439	1278	1.4
Liberty	20	232	465	523	1045	174	116	2556	1859	1.5
Maxima	36	407	349	290	523	116	407	2091	1336	1.2
NUN 01009	3	58	523	697	1045	581	349	3253	2672	1.9
Orange Crisp	40	697	465	116	581	116	0	2207	1045	1.3
Premont	10	174	407	407	1336	232	349	2904	2323	1.7
Sugar Coat	9	116	407	523	1220	290	349	2904	2381	1.7
Sugar Red	6	407	407	407	1045	232	813	3311	2497	1.9
SV0010WA	7	174	407	755	929	407	349	3020	2439	1.7
SV0051WA	22	232	349	58	929	465	349	2381	1801	1.4
SV0241WA	34	523	465	174	871	232	116	2381	1394	1.4
SV2757WA	32	174	523	465	813	232	0	2207	1510	1.3
SWT 0078	20	349	465	639	987	116	116	2672	1859	1.5
SWT 0079	15	232	581	929	871	116	174	2904	2091	1.7
SWT 0082	10	232	290	697	1336	116	174	2846	2323	1.6
Tri-X-313	22	174	232	871	523	174	232	2207	1801	1.3
UG 711	34	639	755	581	755	58	0	2788	1394	1.6
WDL 0409	29	232	697	407	755	232	174	2497	1568	1.4
WDL 1419	26	58	174	639	755	174	116	1917	1684	1.1
WDL 9409	15	174	349	523	929	290	349	2614	2091	1.5
WM 8317	22	290	349	349	929	407	116	2439	1801	1.4
XWT 0166	18	232	871	465	1104	116	349	3136	2033	1.8
Yuval	2	116	407	929	929	232	639	3253	2730	1.9
Average	--	292	426	536	931	250	228	2670	1952	1.5
LSD(0.05)	--	395	392	456	723	371	445	945	1067	0.5

¹ Ranked according to total marketable number.

² Includes fruit ≥ 10 pounds.

Table 13. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for cumulative harvests. Clayton, NC., 2013.

Cultivar	Percentages ¹ (%) by Fruit Size Category (lb)					
	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
7187	16	24	18	31	8	2
7197	10	21	21	28	13	8
11051	15	10	27	35	8	5
ACX 6177	8	10	25	31	17	8
Admiration	7	27	15	37	5	10
Affirmed	13	13	28	30	13	4
Bold Ruler	13	13	15	51	6	0
Chunky	9	15	15	47	6	9
Citation	30	19	30	22	0	0
Crunchy Red	7	12	16	35	19	11
Cut Above	9	19	22	34	10	5
Cut Master	10	13	21	49	5	3
Declaration	5	10	21	31	21	13
Distinction	8	17	15	44	6	10
Exclamation	4	7	17	31	17	24
Fascination	3	12	32	35	9	9
LaJuya	38	10	19	29	5	0
Liberty	9	18	20	41	7	5
Maxima	19	17	14	25	6	19
NUN 01009	2	16	21	32	18	11
Orange Crisp	32	21	5	26	5	0
Premont	6	14	14	46	8	12
Sugar Coat	4	14	18	42	10	12
Sugar Red	12	12	12	32	7	25
SV0010WA	6	13	25	31	13	12
SV0051WA	10	15	2	39	20	15
SV0241WA	22	20	7	37	10	5
SV2757WA	8	24	21	37	11	0
SWT 0078	13	17	24	37	4	4
SWT 0079	8	20	32	30	4	6
SWT 0082	8	10	24	47	4	6
Tri-X-313	8	11	39	24	8	11
UG 711	23	27	21	27	2	0
WDL 0409	9	28	16	30	9	7
WDL 1419	3	9	33	39	9	6
WDL 9409	7	13	20	36	11	13
WM 8317	12	14	14	38	17	5
XWT 0166	7	28	15	35	4	11
Yuval	4	13	29	29	7	20
Average	11	16	20	35	9	8

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 14. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number by harvest for all 5 harvests for total and total marketable categories. Clayton, NC., 2013.

		Percentages ¹ (%) by Harvest for Total and Total Marketable fruit									
		Harvest 1		Harvest 2		Harvest 3		Harvest 4		Harvest 5	
Cultivar	Seed Company	Total		Total		Total		Total		Total	
		Total	Mrkt.	Total	Mrkt.	Total	Mrkt.	Total	Mrkt.	Total	Mrkt.
7187	Nunhems	22	34	18	21	16	7	14	14	29	24
7197	Nunhems	21	26	33	41	15	11	18	15	13	7
11051	Origene seeds	3	4	20	20	27	27	27	22	23	27
ACX 6177	Nunhems	13	10	33	41	17	10	10	10	27	28
Admiration	Syngenta	7	11	41	44	17	22	15	7	20	15
Affirmed	Sakata	30	28	17	13	9	13	13	10	31	38
Bold Ruler	Sakata	23	28	26	31	17	10	8	8	26	23
Chunky	Willhite Seed	35	35	29	38	9	4	12	12	15	12
Citation	Sakata	24	26	35	47	16	11	14	11	11	5
Crunchy Red	Harris Moran	7	7	37	41	9	9	14	15	33	28
Cut Above	Clifton Seed	26	19	33	40	10	10	10	12	21	19
Cut Master	Willhite Seed	18	10	28	33	10	13	18	20	26	23
Declaration	Nunhems	10	9	46	52	18	12	3	3	23	24
Distinction	Syngenta	17	17	35	44	19	19	13	6	17	14
Exclamation	Syngenta	13	13	39	37	26	25	7	8	15	17
Fascination	Syngenta	24	24	44	52	9	3	9	10	15	10
LaJuya	Origene Seeds	21	18	26	36	24	14	17	18	12	14
Liberty	Nunhems	23	25	27	31	7	3	11	12	32	28
Maxima	Origene seeds	19	13	19	17	22	22	22	30	17	17
NUN 01009	Nunhems	16	15	34	35	5	7	18	20	27	24
Orange Crisp	US Seedless	34	33	32	50	13	0	13	11	8	6
Premont	Clifton Seed	18	22	28	35	12	10	18	15	24	18
Sugar Coat	Syngenta	16	20	26	29	14	17	20	15	24	20
Sugar Red	Syngenta	14	12	33	40	7	2	11	12	35	35
SV0010WA	Seminis/Monsantc	13	10	29	31	10	5	31	33	17	21
SV0051WA	Seminis/Monsantc	27	26	34	42	7	3	10	3	22	26
SV0241WA	Seminis/Monsantc	29	21	15	21	27	25	15	12	15	21
SV2757WA	Seminis/Monsantc	24	31	50	46	0	0	8	8	18	15
SWT 0078	Sakata	20	19	30	34	13	9	11	12	26	25
SWT 0079	Sakata	18	14	34	47	8	3	8	0	32	36
SWT 0082	Sakata	29	28	27	28	6	7	12	7	27	30
Tri-X-313	Syngenta	16	19	45	55	8	3	8	10	24	13
UG 711	United Genetics	35	37	19	25	8	12	21	8	17	17
WDL 0409	Syngenta	19	11	26	37	21	30	12	4	23	19
WDL 1419	Syngenta	36	34	39	41	3	3	12	10	9	10
WDL 9409	Syngenta	9	6	29	33	36	39	11	11	16	11
WM 8317	Seminis/Monsantc	17	19	31	26	12	13	19	16	21	26
XWT 0166	Sakata	22	23	24	37	9	6	17	9	28	26
Yuval	Origene seeds	18	19	25	23	7	9	23	23	27	26
Average		20	20	31	36	13	11	14	12	22	20

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 15. Triploid Red-Flesh watermelon hybrid cultivar trial. Cumulative weight, (cwt.), per acre of fruit harvested over five harvests by various weight classes plus average fruit size¹. Clayton, N.C. 2013.

Cultivar	Rank ²	Fruit size category (lb)						Total Cwt./ Acre	Mkt Cwt./ Acre ³	Avg lb./ fruit
		<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+			
7187	28	26	63	57	120	39	12	317	228	10.9
7197	29	14	42	51	90	48	35	279	223	12.2
11051	6	34	32	102	118	48	39	422	357	11.8
ACX 6177	12	16	26	75	118	78	43	356	314	12.7
Admiration	26	12	60	39	126	19	48	304	232	12.8
Affirmed	11	24	37	94	130	70	24	380	318	11.8
Bold Ruler	15	24	36	51	214	29	11	365	305	11.8
Chunky	32	10	27	31	127	20	33	249	212	12.6
Citation	40	40	35	70	59	0	0	204	129	9.4
Crunchy Red	4	15	36	58	160	107	66	442	391	13.3
Cut Above	10	20	58	83	154	59	34	409	330	12.2
Cut Master	25	16	26	51	153	20	14	280	238	11.8
Declaration	19	7	22	52	96	77	54	308	279	13.6
Distinction	16	13	42	45	164	29	62	356	301	12.6
Exclamation	1	7	21	58	139	88	158	472	444	14.9
Fascination	27	4	21	71	95	30	33	253	229	12.8
LaJuya	37	58	21	52	96	19	0	246	167	9.7
Liberty	22	15	40	55	144	30	23	307	252	12.0
Maxima	33	22	31	32	71	20	87	263	210	12.1
NUN 01009	5	4	47	75	143	96	70	434	383	12.9
Orange Crisp	39	44	41	13	78	20	45	242	157	10.9
Premont	7	12	38	46	195	39	70	401	350	13.8
Sugar Coat	9	4	36	59	163	48	71	381	341	13.2
Sugar Red	2	24	37	45	143	40	173	461	401	12.6
SV0010WA	8	12	35	80	129	68	66	391	344	12.9
SV0051WA	17	16	32	7	132	80	72	339	291	13.6
SV0241WA	35	32	42	19	114	38	23	268	195	10.5
SV2757WA	34	13	49	51	109	39	0	260	199	11.8
SWT 0078	23	22	42	70	133	20	23	310	245	11.7
SWT 0079	20	16	53	101	116	19	34	339	269	11.4
SWT 0082	13	16	26	76	181	20	36	355	313	12.3
Tri-X-313	24	10	20	95	72	30	45	272	242	12.4
UG 711	36	41	68	63	99	9	0	280	172	10.1
WDL 0409	30	17	63	45	104	39	35	302	222	12.1
WDL 1419	31	4	15	67	100	29	23	239	220	12.3
WDL 9409	14	13	32	57	127	50	73	352	307	13.4
WM 8317	21	19	31	38	130	70	24	313	262	13.1
XWT 0166	18	17	78	52	147	20	71	385	290	12.0
Yuval	3	9	37	101	132	40	126	444	398	13.5
Average	--	19	38	59	126	42	48	333	276	12.2
LSD (0.05)	--	25	36	50	99	63	93	157	169	2.5

¹ Yields are calculated using 100 percent seedless watermelon population. Ace pollinizers were interplanted after triploid plants 1, 4, and 7, (3 plants/plot). Fruit numbers for each category are rounded to the nearest whole number.

² Ranked according to total marketable weight.

³ Includes fruit ≥ 10 pounds.

Table 16. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested over five harvests by weight within each fruit size category. Clayton, NC, 2013.

Cultivar	Percentages ¹ (%) by Fruit Size Category					
	< 7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
7187	8	20	18	38	12	4
7197	5	15	18	32	17	13
11051	8	8	24	28	11	9
ACX 6177	4	7	21	33	22	12
Admiration	4	20	13	41	6	16
Affirmed	6	10	25	34	18	6
Bold Ruler	7	10	14	58	8	3
Chunky	4	11	13	51	8	13
Citation	20	17	34	29	0	0
Crunchy Red	3	8	13	36	24	15
Cut Above	5	14	20	38	15	8
Cut Master	6	9	18	55	7	5
Declaration	2	7	17	31	25	17
Distinction	4	12	13	46	8	17
Exclamation	2	4	12	30	19	34
Fascination	2	8	28	38	12	13
LaJuya	24	8	21	39	8	0
Liberty	5	13	18	47	10	8
Maxima	8	12	12	27	8	33
NUN 01009	1	11	17	33	22	16
Orange Crisp	18	17	5	32	8	19
Premont	3	10	11	49	10	17
Sugar Coat	1	10	15	43	13	19
Sugar Red	5	8	10	31	9	38
SV0010WA	3	9	21	33	17	17
SV0051WA	5	9	2	39	24	21
SV0241WA	12	16	7	43	14	9
SV2757WA	5	19	19	42	15	0
SWT 0078	7	14	22	43	6	7
SWT 0079	5	16	30	34	6	10
SWT 0082	4	7	21	51	6	10
Tri-X-313	4	7	35	27	11	16
UG 711	15	24	23	35	3	0
WDL 0409	6	21	15	35	13	11
WDL 1419	2	6	28	42	12	10
WDL 9409	4	9	16	36	14	21
WM 8317	6	10	12	42	22	8
XWT 0166	4	20	13	38	5	18
Yuval	2	8	23	30	9	28
Average	6	12	18	38	12	14

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

Table 17. Triploid Red-Flesh watermelon hybrid cultivar trial. Interior fruit quality. Clayton, N.C., 2013.¹

Cultivar	SS ²	Flesh Color ³	Sd. Trace Size ⁴	Hard Seed Population ⁵	LD ⁶	Rind ⁷	Flesh Firmness ⁸	Hollow Heart Ratings ⁹				
								HH0	HH1	HH2	HH3	HH4
7187	12.0	3.9	1.7	1.3	1.2	16.9	3.0	85	10	5	0	0
7197	12.5	4.0	1.9	2.9	1.2	16.8	3.4	90	5	5	0	0
11051	11.5	4.1	2.6	0.4	1.0	15.4	3.1	100	0	0	0	0
ACX 6177	11.9	4.0	1.7	5.2	1.0	17.4	3.4	80	20	0	0	0
Admiration	12.2	4.4	3.1	0.4	1.1	14.3	3.1	90	10	0	0	0
Affirmed	11.9	3.9	2.1	0.3	1.2	14.8	2.5	70	15	10	0	5
Bold Ruler	11.7	4.1	2.3	0.4	1.1	16.9	2.4	65	20	5	5	0
Chunky	11.6	3.9	2.3	0.3	1.2	14.8	2.9	90	0	5	5	0
Citation	11.5	4.2	2.1	3.6	1.1	13.3	2.7	80	10	5	5	0
Crunchy Red	12.0	3.8	1.6	3.0	1.2	16.0	3.3	100	0	0	0	0
Cut Above	11.7	3.8	2.0	4.2	1.1	13.4	2.7	75	20	5	0	0
Cut Master	12.2	4.2	2.3	2.8	1.1	15.0	2.5	70	15	10	5	0
Declaration	12.0	3.8	2.3	0.3	1.1	15.3	2.9	75	25	0	0	0
Distinction	11.9	4.2	2.5	0.8	1.0	17.1	3.2	95	5	0	0	0
Exclamation	11.9	4.2	1.4	3.8	1.1	16.3	3.5	100	0	0	0	0
Fascination	12.0	4.6	1.2	8.0	1.1	15.9	3.2	100	0	0	0	0
LaJuya	11.9	4.3	2.0	0.5	1.0	14.9	3.9	100	0	0	0	0
Liberty	11.8	3.7	2.0	0.2	1.2	17.8	2.8	75	15	5	5	0
Maxima	11.1	4.1	1.4	1.0	1.0	16.1	3.6	100	0	0	0	0
NUN 01009	11.3	3.9	1.9	0.3	1.1	17.2	3.1	90	10	0	0	0
Orange Crisp	11.7	1.8	1.6	8.5	1.0	14.0	3.1	85	5	10	0	0
Premont	11.5	3.7	1.5	3.9	1.2	17.0	3.5	100	0	0	0	0
Sugar Coat	11.8	4.3	1.5	0.2	1.2	16.8	2.6	80	10	5	0	5
Sugar Red	12.7	4.3	1.8	0.2	1.2	15.5	2.8	75	10	10	5	0
SV0010WA	10.4	4.1	1.3	1.3	1.2	16.2	5.0	95	5	0	0	0
SV0051WA	12.0	3.9	1.4	2.1	1.2	16.7	5.4	100	0	0	0	0
SV0241WA	11.6	4.4	1.7	0.4	1.2	13.7	3.0	95	5	0	0	0
SV2757WA	11.3	4.6	1.6	0.7	1.1	13.4	3.6	100	0	0	0	0
SWT 0078	11.9	4.3	1.5	4.1	1.1	17.0	3.0	90	0	10	0	0
SWT 0079	12.2	4.1	1.6	7.4	1.1	16.5	3.0	90	10	0	0	0
SWT 0082	11.8	4.1	1.2	4.8	1.1	16.9	3.2	75	15	10	0	0
Tri-X-313	11.6	3.6	2.5	0.3	1.1	16.4	2.3	70	15	15	0	0
UG 711	11.7	3.7	1.7	3.7	1.1	13.5	2.6	90	5	5	0	0
WDL 0409	12.0	4.3	1.7	0.6	1.1	15.2	2.6	95	5	0	0	0

Table 17. Triploid Red-Flesh watermelon hybrid cultivar trial. Interior fruit quality. Clayton, N.C., 2013¹ (Cont.).

Cultivar	SS ²	Flesh	Sd. Trace	Hard Seed			Flesh	Hollow Heart Ratings ⁹				
		Color ³	Size ⁴	Population ⁵	LD ⁶	Rind ⁷	Firmness ⁸	HH0	HH1	HH2	HH3	HH4
WDL 1419	11.9	4.6	2.3	11.6	1.2	12.8	3.0	100	0	0	0	0
WDL 9409	11.7	4.2	1.6	0.6	1.1	14.6	3.1	100	0	0	0	0
WM 8317	11.2	4.1	2.3	0.7	1.1	15.7	2.8	95	5	0	0	0
XWT 0166	12.0	4.0	1.6	1.4	1.1	16.3	3.2	95	0	5	0	0
Yuval	11.3	3.9	2.1	0.1	1.2	15.9	2.7	85	10	5	0	0
Average	11.6	4.2	2.0	2.9	1.1	15.0	2.9	95	3	2	0	0
LSD (0.05)	0.8	0.5	0.7	4.3	0.1	2.6	0.5	24	18	12	5	3

¹ Most measurements were obtained from fruits in harvest 1.

² SS = Indicates sweetness, average of 5 melons per replication (20 total).

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

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

⁵ Average number of hard seeds counted within 5 melons per replication (20 total).

⁶ LD = Length and diameter ratio, average of 5 melons per replication (20 total).

⁷ Rind = Rind thickness (mm), measured from rind to where white and colored flesh meet, average of 5 melons per replication.

⁸ Fruit pressure was taken by a penetrometer, Fruit Pressure Tester - FT011 from QA Supplies LLC, Norfolk Va. Five melons per replicate, per cultivar, were probed 1/2 the distance between the rind and the center of the melon.

⁹ **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

Table 18. Triploid mini-watermelon cultivar seed sources and descriptions; 2013.

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
1	11005a	Origene Seeds	Indistinct, medium to wide, very dark green stripes on a medium to light green background; fruit are slightly longer than round; good mini melon size and very uniformed shape and size; deep red flesh; seed traces are tomatoes size; very firm flesh; indistinct rind flesh delineation; thick rind.
2	Petite Perfection	Syngenta	Distinct, narrow, dark green stripes on a light green background; uniform round shape; good small to large mini watermelon sizes; thin rind; good rind flesh delineation; small, white seed traces with a few hard seeds
3	Pixie	Nunhems	Distinct, narrow, very dark green stripes bordered by a dark green shadow on a medium green background; uniform round shape; mini melon size to small ice box size; very wide rind thickness; fairly average flesh color; fairly small to medium seed traces
4	Sweet Bite	Zeraim Gedera	Indistinct, medium width, dark green stripes on a light green background; uniform round shape; small to very large mini watermelon size; average red flesh color; very small seed traces; thick rind

Figure 2. Mini-triploid Cultivar Pictures

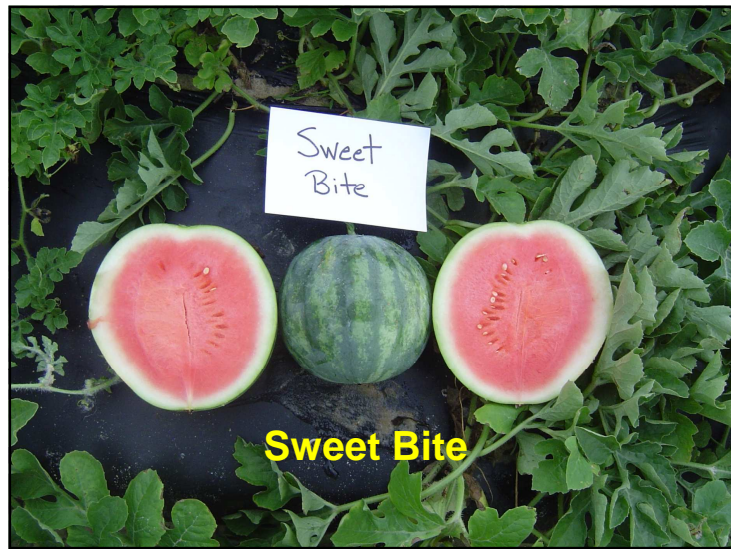
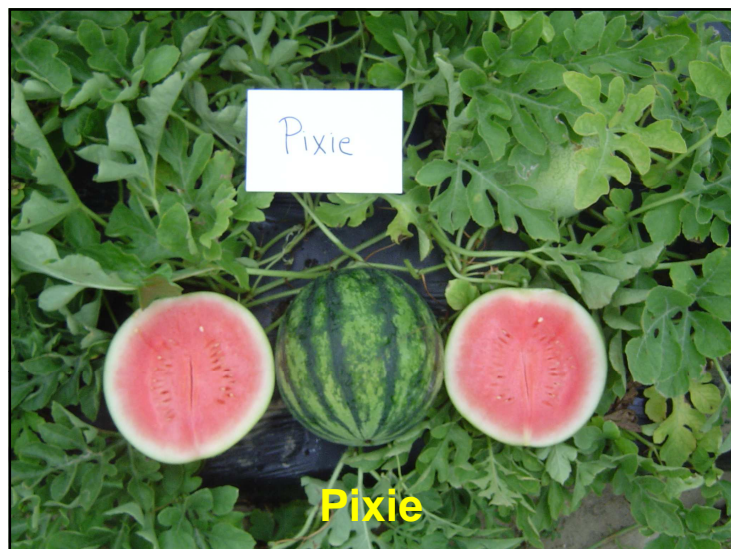


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2	Petite Perfection	Syngenta	Distinct, narrow, dark green stripes on a light green background; uniform round shape; good small to large mini watermelon sizes; thin rind; good rind flesh delineation; small, white seed traces with a few hard seeds
3	Pixie	Nunhems	Distinct, narrow, very dark green stripes bordered by a dark green shadow on a medium green background; uniform round shape; mini melon size to small ice box size; very wide rind thickness; fairly average flesh color; fairly small to medium seed traces
4	Sweet Bite	Zeraim Gedera	Indistinct, medium width, dark green stripes on a light green background; uniform round shape; small to very large mini watermelon size; average red flesh color; very small seed traces; thick rind

Table 19. Triploid mini watermelon hybrid cultivar trial. Number of fruit harvested in first harvest by various weight classes (per acre) and average fruit size¹. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank²</u>	<u>Fruit Size Category</u>							<u>Total</u>	<u>Total Mkt³</u>	<u>Avg. Wt. (lb)</u>
		<u>≤3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>			
11005a	4	109	0	218	0	0	0	0	327	218	2.8
Petite Perfection	3	762	653	436	0	0	0	0	1851	1089	3.5
Pixie	1	109	436	1416	0	0	0	0	1960	1851	4.7
Sweet Bite	2	109	218	1198	0	0	0	0	1525	1416	4.6
Average	--	272	327	817	0	0	0	0	1416	1143	3.9
LSD(0.05)	--	557	519	936	0	0	0	0	805	936	2.1

Table 20. Triploid mini watermelon hybrid cultivar trial. Number of fruit harvested in second harvest by various weight classes (per acre) and average fruit size¹. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank²</u>	<u>Fruit Size Category</u>							<u>Total</u>	<u>Total Mkt³</u>	<u>Avg. Wt. (lb)</u>
		<u>≤3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>			
11005a	4	0	218	218	0	0	0	0	436	436	4.2
Petite Perfection	2	218	327	545	0	0	0	0	1089	871	2.9
Pixie	3	327	218	545	109	0	0	0	1198	762	3.0
Sweet Bite	1	0	109	1198	109	0	0	0	1416	1307	5.7
Average	--	136	218	626	54	0	0	0	1035	844	3.9
LSD(0.05)	--	334	592	1356	201	0	0	0	1580	1576	1.7

Table 21. Triploid mini watermelon hybrid cultivar trial. Number of fruit harvested in third and fourth harvests by various weight classes (per acre) and average fruit size¹. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank²</u>	<u>Fruit Size Category</u>							<u>Total</u>	<u>Total Mkt³</u>	<u>Avg. Wt. (lb)</u>
		<u>≤3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>			
11005a	3	0	327	545	0	0	109	0	980	871	5.9
Petite Perfection	4	545	0	436	0	0	0	0	980	436	2.9
Pixie	2	545	327	762	0	0	0	0	1634	1089	4.0
Sweet Bite	1	218	327	871	109	0	218	218	1960	1198	4.8
Average	--	327	245	653	27	0	82	54	1388	898	4.4
LSD(0.05)	--	636	406	929	174	0	406	348	1859	1040	3.3

¹ Yields are calculated using 100 percent seedless watermelon population. Ace pollinizers were interplanted after triploid plants 1, 4, and 7, (3 plants/plot). Fruit numbers for each category are rounded to the nearest whole number.

² Ranked according to total marketable number.

³ Includes fruit 3 to 7 lbs.

Table 22. Tripliod mini watermelon hybrid cultivar trial. Percentage of fruit number harvested in first harvest by various weight classes (per acre). Clayton, N.C., 2013.

Percentages¹ (%) by Fruit Size Category								
Cultivar	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Mrkt²
11005a	33	0	67	0	0	0	0	67
Petite Perfection	41	35	24	0	0	0	0	59
Pixie	6	22	72	0	0	0	0	94
Sweet Bite	7	14	79	0	0	0	0	93
Average	6	18	75	0	0	0	0	94

Table 23. Tripliod mini watermelon hybrid cultivar trial. Percentage of fruit number harvested in second harvest by various weight classes (per acre). Clayton, N.C., 2013.

Percentages¹ (%) by Fruit Size Category								
Cultivar	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Mrkt²
11005a	0	50	50	0	0	0	0	100
Petite Perfection	20	30	50	0	0	0	0	80
Pixie	27	18	45	9	0	0	0	64
Sweet Bite	0	8	85	8	0	0	0	92
Average	12	26	58	4	0	0	0	84

Table 24. Tripliod mini watermelon hybrid cultivar trial. Percentage of fruit number harvested in third and fourth harvests by various weight classes (per acre). Clayton, N.C., 2013.

Percentages¹ (%) by Fruit Size Category								
Cultivar	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Mrkt²
11005a	0	33	56	0	0	11	0	89
Petite Perfection	56	0	44	0	0	0	0	44
Pixie	33	20	47	0	0	0	0	67
Sweet Bite	11	17	44	6	0	11	11	61
Average	25	18	48	1	0	6	3	65

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 25. Triploid mini watermelon hybrid cultivar trial. Number of fruit harvested in the fifth harvest by various weight classes (per acre) and average fruit size¹. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank²</u>	<u>Fruit Size Category</u>							<u>Total</u>	<u>Total Mkt³</u>	<u>Avg. Wt. (lb)</u>
		<u>≤3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>			
11005a	3	0	109	545	327	218	327	327	1851	653	7.8
Petite Perfection	2	327	436	653	0	0	0	0	1416	1089	3.9
Pixie	4	0	218	327	109	218	0	0	871	545	5.6
Sweet Bite	1	218	327	871	109	0	0	0	1525	1198	5.1
Average	- -	136	272	599	136	109	82	82	1416	871	5.6
LSD(0.05)	- -	523	479	450	372	328	174	334	900	697	1.8

Table 26. Triploid mini watermelon hybrid cultivar trial. Number of fruit harvested in sixth harvest by various weight classes (per acre) and average fruit size¹. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank²</u>	<u>Fruit Size Category</u>							<u>Total</u>	<u>Total Mkt³</u>	<u>Avg. Wt. (lb)</u>
		<u>≤3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>			
11005a	3	109	218	1307	218	327	218	327	2723	1525	6.9
Petite Perfection	4	436	545	109	0	0	0	0	1089	653	3.3
Pixie	1	218	762	1634	109	0	109	0	2831	2396	4.6
Sweet Bite	2	0	762	1307	218	109	0	327	2723	2069	5.6
Average	- -	191	572	1089	136	109	82	163	2341	1661	5.1
LSD(0.05)	- -	334	871	1293	372	232	239	532	1803	1488	1.2

¹ Yields are calculated using 100 percent seedless watermelon population. Ace pollinizers were interplanted after triploid plants 1, 4, and 7, (3 plants/plot). Fruit numbers for each category are rounded to the nearest whole number.

² Ranked according to total marketable number.

³ Includes fruit 3 to 7 lbs.

Table 27. Triploid mini watermelon hybrid cultivar trial. Percentage of fruit number harvested in fifth harvest by various weight classes (per acre). Clayton, N.C., 2013.

Percentages¹ (%) by Fruit Size Category								
Cultivar	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Mrkt²
11005a	0	6	29	18	12	18	18	35
Petite Perfection	23	31	46	0	0	0	0	77
Pixie	0	25	38	13	25	0	0	63
Sweet Bite	14	21	57	7	0	0	0	79
Average	7	23	47	10	13	0	0	71

Table 28. Triploid mini watermelon hybrid cultivar trial. Percentage of fruit number harvested in sixth harvest by various weight classes (per acre). Clayton, N.C., 2013.

Percentages¹ (%) by Fruit Size Category								
Cultivar	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Mrkt²
11005a	4	8	48	8	12	8	12	56
Petite Perfection	40	50	10	0	0	0	0	60
Pixie	8	27	58	4	0	4	0	85
Sweet Bite	0	28	48	8	4	0	12	76
Average	13	28	41	5	4	3	6	69

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 29. Triploid mini watermelon hybrid cultivar trial. Cumulative number of fruit harvested over 6 harvests by various weight classes (per acre)¹. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank²</u>	<u>Fruit Size Category</u>							<u>Total</u>	<u>Mkt³</u>
		<u><3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>		
11005a	3	545	871	2831	545	545	653	653	6643	3703
Petite Perfection	3	2505	1960	2178	0	0	0	0	6643	4138
Pixie	2	1416	1960	4683	327	218	109	0	8712	6643
Sweet Bite	1	762	1742	5445	545	109	218	545	9365	7187
Average	- -	1307	1634	3784	354	218	245	299	7841	5418
LSD(0.05)	- -	943	1218	1716	639	326	523	945	1769	1479

¹ Yields are calculated using 100 percent seedless watermelon population. Ace pollinizers were interplanted after triploid plants 1, 4, and 7, (3 plants/plot). Fruit numbers for each category are rounded to the nearest whole number.

² Ranked according to total marketable number.

³ Includes fruit 3 to 7 lbs.

Table 30. Triploid mini watermelon hybrid cultivar trial. Cumulative Percentage harvested by number within each fruit size category. Clayton, NC, 2013.

<u>Cultivar</u>	<u>Percentages¹ (%) by Fruit Size Category</u>							<u>Mkt²</u>
	<u><3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>	
11005a	8	14	43	8	9	9	9	56
Petite Perfection	38	30	33	0	0	0	0	62
Pixie	17	23	53	3	3	1	0	76
Sweet Bite	9	18	59	6	1	2	5	78
Average	18	21	47	4	3	3	3	68
LSD(0.05)	14	15	22	8	5	6	9	15

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 31. Triploid mini watermelon hybrid cultivar trial. Percent harvested by number by harvest within total and total marketable categories. Clayton, NC, 2013.

Cultivar	Percentages¹ (%) by harvest for Total and Total Marketable Fruit									
	Harvest 1		Harvest 2		Harvest 3 and 4		Harvest 5		Harvest 6	
	Total	Total Mrkt.	Total	Total Mrkt.	Total	Total Mrkt.	Total	Total Mrkt.	Total	Total Mrkt.
11005a	5	6	7	12	15	24	28	18	41	41
Petite Perfection	28	26	16	21	15	11	21	26	16	16
Pixie	23	28	14	11	19	16	10	8	33	36
Sweet Bite	16	20	15	18	21	17	16	17	29	29
Average	18	20	13	16	17	17	19	17	30	30

¹ Fruit number (per cultivar and harvest) divided by the total number and total marketable number (per cultivar) times 100.

Table 32. Mini Triploid watermelon hybrid cultivar trial. Cumulative weight (x 100) of fruit harvested over 6 harvests by various weight classes (per acre) including average fruit weight. Clayton, N.C., 2013.

<u>Cultivar</u>	<u>Rank¹</u>	<u>Fruit Size Category (lb)</u>							<u>Total</u>	<u>Total Mkt²</u>	<u>Avg. Wt</u>
		<u><3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>			
11005a	3	5	31	150	42	45	63	79	146	181	6.2
Petite Perfection	4	51	69	103	0	0	0	0	224	172	3.3
Pixie	2	25	69	241	24	19	11	0	389	310	4.4
Sweet Bite	1	9	60	290	40	10	21	64	494	350	5.1
Average	--	23	57	196	26	18	24	36	313	253	4.8
LSD(0.05)	--	24	41	89	49	29	51	107	190	78	1.1

¹ Ranked according to total marketable number.

² Includes fruit 3 to 7 lbs.

Table 33. Triploid mini watermelon hybrid cultivar trial. Cumulative Percentage harvested by weight within each fruit size category. Clayton, NC, 2013.

<u>Cultivar</u>	<u>Percentages¹ (%) by Fruit Size Category</u>								<u>Mkt²</u>
	<u><3</u>	<u>3-3.9</u>	<u>4.0-7.0</u>	<u>7.1-8.0</u>	<u>8.1-9.0</u>	<u>9.1-10</u>	<u>>10</u>		
11005a	1	8	37	11	12	14	18	44	
Petite Perfection	23	32	45	0	0	0	0	77	
Pixie	7	19	61	5	5	2	0	81	
Sweet Bite	2	13	65	8	1	3	8	78	
Average	8	18	52	6	4	5	6	70	
LSD	8	12	25	12	9	8	15	21	

¹ Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may not equal 100% due to rounding to nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 34. Mini Triploid watermelon hybrid cultivar trial. Interior fruit quality. Clayton, NC, 2013.¹

Cultivar	Rind	Soluble	Flesh	Average	Fruit	Hollow Heart Ratings⁶					
	Thickness (mm)²	Solids³	Color⁴	Fruit	Pressure⁵	LD	HH0	HH1	HH2	HH3	HH4
11005a	15.0	11.3	4.2	4.2	1.05		100	0	0	0	0
Petite Perfection	7.2	12.4	4.3	3.8	1.06		100	0	0	0	0
Pixie	13.8	12.2	3.9	3.0	0.84		100	0	0	0	0
Sweet Bite	14.4	12.1	4.3	3.5	0.98		70	5	20	5	0
Average	12.6	12.0	4.2	3.6	1.0		93	1	5	1	0
LSD (0.05)	3.4	0.7	0.3	0.4	0.27		16	8	23	8	0

¹ Most measurements were obtained from fruits in harvest 1.

² Rind Thickness=Rinds were measured in 2 regions of the fruit (on one side and directly opposite on the other side) and an average was taken for 5 fruits per replication (20 total).

³ SS = Soluble solids indicates sweetness, average of 5 melons per replication (20 total).

⁴ Rating: 3=red, 3.5=bright red, 4=dark red, 5=blood red.

⁵ Fruit pressure was taken by a penetrometer, Fruit Pressure Tester - FT011 from QA Supplies LLC, Norfolk Va. Five melons per replicate, per cultivar, were probed 1/2 the distance between the rind and the center of the melon on the top and bottom sides of each fruit.

⁶ **Hollow Heart Ratings** (Percentage occurrence in each category).

HH0 = Fruit with no hollow heart, (Marketable fruit).

HH1 = Fruit with minimal / hairline crack in flesh; (Marketable fruit).

HH2 = Fruit with small crack in flesh; (Marketable fruit).

HH3 = Fruit with medium to large flesh separations; (Non marketable fruit).

HH4 = Fruit with flesh separation to rind; (Non marketable fruit).

Table 35. Diploid watermelon cultivar descriptions and seed sources; Clayton, N.C., 2013.

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
1	Crimson Sweet	Monsanto/ Seminis	Distinct, medium width, medium to dark green stripes on light green background; uniform shape, slightly longer than round to round shape; medium to large size; excellent flavor
2	Sentinel	Monsanto/ Seminis	Indistinct, medium width, dark green stripes on light green background; uniform shape; blocky; medium to large size fruit
3	Summer Flavor 800	Abbott & Cobb	Indistinct, very wide dark green stripes on light green background; mainly blocky fruit that are uniform in shape; fruit size mainly medium to large; dark black seeds; good rind flesh delineation; deep red flesh
4	UGR 1163	United Genetics	Indistinct, medium to wide dark green stripes on light green background; uniformly blocky fruit; medium to large size fruit; deep red flesh color; medium to large seeds; average rind thickness; dark black brown seeds; distinct rind flesh interface; average rind thickness.
5	WT2527	Monsanto/ Seminis	Indistinct, very wide, very dark green stripes on light green background; mainly elongated to slightly elongated shape; mainly large size fruits; distinct, waxy bloom on fruits which gives the fruit a fresh picked look; deep red flesh with dark brown seeds; fairly thick rind
6	XMD 4046	Sakata	Indistinct, wide dark green stripes on light green background; uniform blocky fruit; mainly medium size; good red color; medium to large fruit seeds; average rind thickness; dark black brown seeds; distinct rind flesh interface.

Figure 3. Diploid Cultivar Pictures

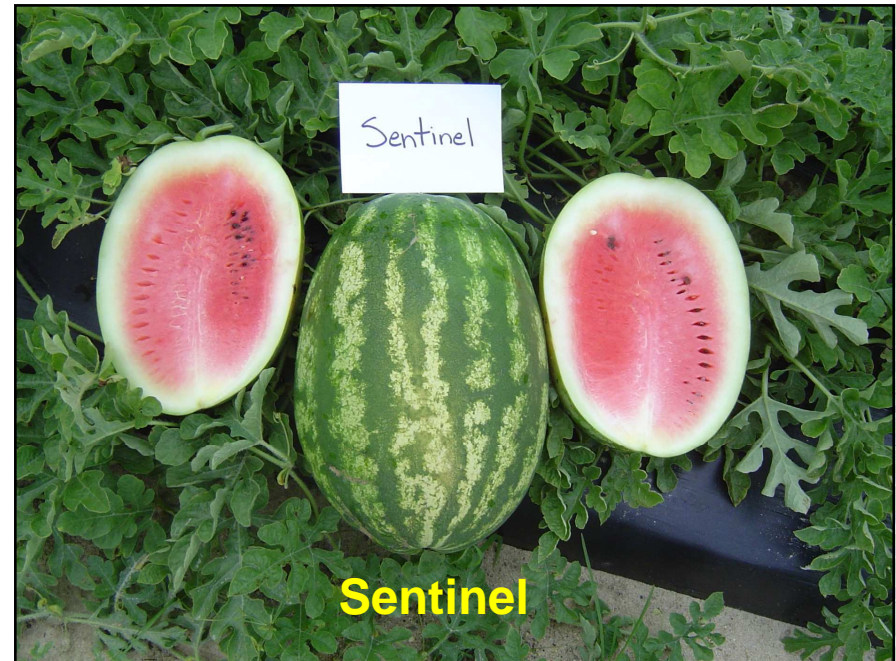


Figure 3. Diploid Cultivar Pictures

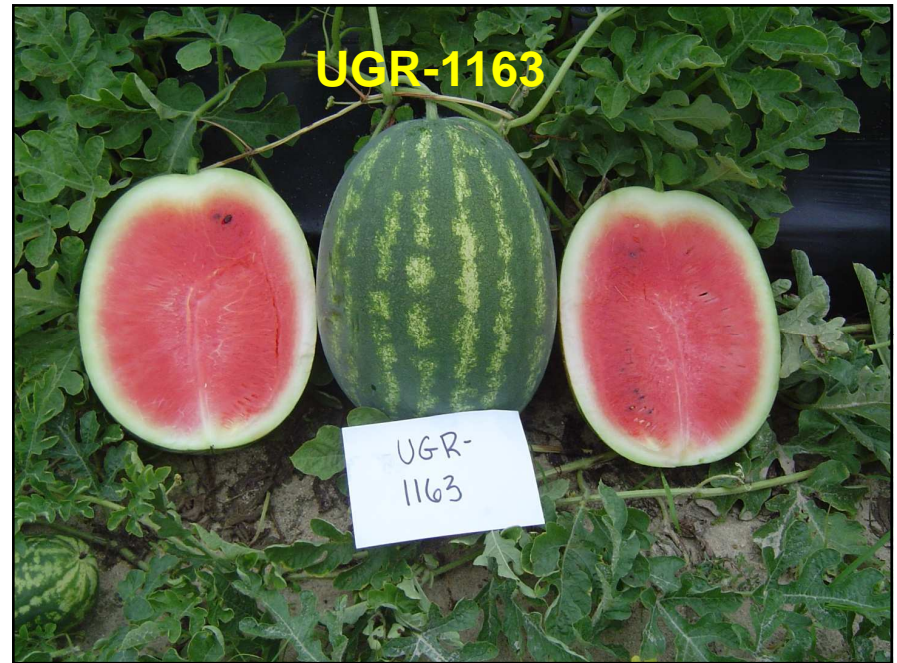


Figure 3. Diploid Cultivar Pictures



Table 36. Diploid watermelon hybrid cultivar trial. Number of fruit harvested during the first harvest by various weight classes (per acre) and average fruit size. Clayton, N.C., 2013.

Cultivar	Rank¹	Fruit size category (lb)				Total	Total Mkt²	Avg. Wt. (lb)³
		<8	8-15.9	16-23.9	24 +			
Crimson Sweet	4	44	392	349	87	871	828	17.4
Sentinel	2	218	566	523	87	1394	1176	14.9
Summer Flavor 800	5	44	349	349	87	828	784	17.3
UGR 1163	6	87	436	218	44	784	697	16.2
WT2527	1	131	261	697	261	1350	1220	17.5
XWD 4046	3	87	653	392	0	1133	1045	15.2
Average	--	102	443	421	94	1060	958	16.4
LSD(0.05)	--	230	477	328	199	492	451	--

Table 37. Diploid watermelon hybrid cultivar trial. Number of fruit harvested during the second harvest by various weight classes (per acre) including average fruit size. Clayton, N.C., 2013.

Cultivar	Rank¹	Fruit size category (lb)				Total	Total Mkt²	Avg. Wt. (lb)³
		<8	8-15.9	16-23.9	24 +			
Crimson Sweet	3	0	131	1742	0	305	305	15.5
Sentinel	5	0	131	87	0	218	218	15.3
Summer Flavor 800	1	0	349	174	44	566	566	15.9
UGR 1163	2	0	392	131	0	523	523	15.0
WT2527	5	0	174	44	0	218	218	13.8
XWD 4046	4	0	131	131	0	261	261	13.7
Average	--	0	218	385	7	348	348	14.9
LSD(0.05)	--	0	319	223	54	352	352	--

¹ Ranked according to total marketable number.

² Includes fruit ≥ 8 pounds.

³ Represents average weights of fruit across all reps for representative harvest.

Table 38. Diploid watermelon hybrid cultivar trial. Percentage fruit harvested by number within each size category for the first harvest. Clayton, N.C., 2013

Cultivar	Percentages¹ (%) by Fruit Size Category (lb)			
	<8	8-15.9	16-23.9	24+
Crimson Sweet	0	45	40	10
Sentinel	0	41	37	6
Summer Flavor 800	0	42	42	11
UGR 1163	0	56	28	6
WT2527	0	19	52	19
XWD 4046	0	58	35	0
Average	0	43	39	9

Table 39. Diploid watermelon hybrid cultivar trial. Percentage fruit harvested by number within each size category for the second harvest. Clayton, N.C., 2013.

Cultivar	Percentages¹ (%) by Fruit Size Category (lb)			
	<8	8-15.9	16-23.9	24+
Crimson Sweet	0	43	57	0
Sentinel	0	60	40	0
Summer Flavor 800	0	62	31	8
UGR 1163	0	75	25	0
WT2527	0	80	20	0
XWD 4046	0	50	50	0
Average	0	62	123	1

¹ Fruit number (per cultivar weight class) divided by the total number (per cultivar) times 100. Percentages are rounded to the nearest whole number.

Table 40. Diploid watermelon hybrid cultivar trial. Number of fruit harvested during the third and fourth harvest by various weight classes (per acre) including average fruit size. Clayton, N.C., 2013.

Cultivar	Rank ¹	Fruit size category (lb)				Total	Total Mkt ²	Avg. Wt. (lb) ³
		<8	8-15.9	16-23.9	24 +			
Crimson Sweet	1	0	392	131	0	523	523	13.1
Sentinel	5	0	174	261	0	436	436	14.9
Summer Flavor 800	3	0	261	218	0	479	479	13.7
UGR 1163	3	44	349	131	0	523	479	15.1
WT2527	6	174	218	44	44	479	305	11.1
XWD 4046	1	0	349	174	0	523	523	14.8
Average	--	36	290	160	7	494	457	13.8
LSD(0.05)	--	140	329	297	54	496	508	--

Table 41. Diploid watermelon hybrid cultivar trial. Number of fruit harvested during the fifth harvest by various weight classes (per acre) including average fruit size. Clayton, N.C., 2013.

Cultivar	Rank ¹	Fruit size category (lb)				Total	Total Mkt ²	Avg. Wt. (lb) ³
		<8	8-15.9	16-23.9	24 +			
Crimson Sweet	5	0	523	0	0	523	523	11.3
Sentinel	3	0	523	174	0	697	697	13.5
Summer Flavor 800	2	0	566	218	0	784	784	13.6
UGR 1163	6	0	261	44	0	305	305	11.5
WT2527	4	0	566	87	44	697	697	12.9
XWD 4046	1	0	653	218	0	871	871	13.8
Average	--	0	515	123	7	646	646	12.8
LSD(0.05)	--	0	529	216	54	553	553	--

Table 42. Diploid watermelon hybrid cultivar trial. Percentage fruit harvested by number within each size category for third and fourth harvests; Clayton, N.C., 2013.

Cultivar	Percentages¹ (%) by Fruit Size Category (lb)			
	<8	8-15.9	16-23.9	24+
Crimson Sweet	0	75	25	0
Sentinel	0	40	60	0
Summer Flavor 800	0	55	45	0
UGR 1163	8	67	25	0
WT2527	36	45	9	9
XWD 4046	0	67	33	0
Average	11	58	28	2

Table 43. Diploid watermelon hybrid cultivar trial. Percentage of fruit harvested by number within each size category for the fifth harvest; Clayton, N.C., 2013.

Cultivar	Percentages¹ (%) by Fruit Size Category (lb)			
	<8	8-15.9	16-23.9	24+
Crimson Sweet	0	100	0	0
Sentinel	0	75	25	0
Summer Flavor 800	0	72	28	0
UGR 1163	0	86	14	0
WT2527	0	81	12	6
XWD 4046	0	75	25	0
Average	0	79	20	2

¹ Fruit number (per cultivar weight class) divided by the total number (per cultivar) times 100. Percentages are rounded to the nearest whole number.

Table 44. Diploid watermelon hybrid cultivar trial. Percentage harvested by harvest in total and total marketable number categories. Clayton, NC, 2013.

Cultivar	Percentages ¹ (%) by Harvest for Total and Total Marketable fruit							
	1st Harvest		2nd Harvest		3rd and 4th Harves		5th Harvest	
	Total	Total Mkt.	Total	Total Mkt.	Total	Total Mkt.	Total	Total Mkt.
Crimson Sweet	38	38	13	14	23	24	23	24
Sentinel	50	47	8	9	16	17	25	28
Summer Flavor 800	30	30	21	22	17	18	29	30
UGR 1163	35	35	24	26	24	24	14	15
WT2527	48	50	8	9	17	12	25	29
XWD 4046	39	39	9	10	18	19	30	32
Average	40	40	14	15	19	19	24	26

¹ Fruit weight (per cultivar total and total marketable weight classes) divided by the cumulative total and total marketable number (per cultivar) times 100. Percentages are rounded to the nearest whole number.

Table 45. Diploid watermelon hybrid cultivar trial. Cumulative fruit number by various weight classes (per acre) and fruit number per plant. Clayton, N.C., 2013.

Cultivar	Rank¹	Fruit size category (lb)				Total	Total Mkt²	Fruit / Plant
		<8	8-15.9	16-23.9	24+			
Crimson Sweet	5	87	1438	653	87	2265	2178	1.3
Sentinel	3	261	1394	1045	87	2788	2527	1.6
Summer Flavor 800	2	131	1525	958	131	2744	2614	1.6
UGR 1163	6	218	1438	523	44	2222	2004	1.3
WT2527	4	392	1220	871	349	2831	2439	1.6
XWD 4046	1	174	1786	915	0	2875	2701	1.7
Average	--	211	1467	828	116	2621	2410	1.5
LSD (0.05)	--	364	652	405	264	677	670	0.4

¹ Ranked according to total marketable number. If stars are all the same then there was no statistical differences among varieties.

² Includes fruit ≥ 8 pounds.

³ Represents average weights of fruit across all reps for representative harvest.

Table 46. Diploid watermelon hybrid cultivar trial. Cumulative weight (x 100), of fruit harvested by various weight classes (per acre) and average fruit size. Clayton, N.C., 2013

Cultivar	Rank¹	Fruit size category (lb)				Total	Total Mkt²	Avg. Wt. (lb)³
		<8	8-15.9	16-23.9	24 +			
Crimson Sweet	5	3.4	175.1	121.4	24.5	324.4	321.0	14.6
Sentinel	4	14.9	171.4	191.5	22.0	399.8	384.9	14.6
Summer Flavor 800	3	2.2	186.6	181.6	33.2	403.6	401.4	14.8
UGR 1163	6	7.9	182.3	100.5	13.1	303.8	295.9	13.7
WT2527	1	10.9	153.9	156.7	95.3	416.8	405.9	14.7
XWD 4046	2	4.5	222.9	179.9	0.0	407.2	402.8	14.1
Average	--	7.3	182.0	155.3	31.4	375.9	368.6	14.4
LSD(0.05)	--	16.7	76.3	72.9	73.6	92.8	95.5	2.0

¹ Ranked according to total marketable number.

² Includes fruit ≥ 8 lb.

³ Represents average weights of fruit across all reps for cumulative harvests.

Table 47. Diploid watermelon hybrid cultivar trial. Percentage harvested by weight over five harvests within each fruit size category. Clayton, NC., 2013.

Cultivar	Percentages¹ (%) by Fruit Size Category (lb)			
	<8	8-15.9	16-23.9	24+
Crimson Sweet	1	53	39	6
Sentinel	4	40	49	7
Summer Flavor 800	1	45	46	8
UGR 1163	3	59	33	5
WT2527	3	37	39	21
XWD 4046	1	54	45	0
Average	2	48	42	8
LSD (0.05)	4	16	22	18

¹ Fruit weight (per cultivar weight class) divided by the total weight (per cultivar) times 100. Percentages are rounded to the nearest whole number.

Table 48. Diploid watermelon hybrid cultivar trial. Interior fruit quality. Clayton, NC, 2013.¹

Cultivar	SS ²	Color ³	Seed	Flesh	LD ⁶	Rind ⁷	Hollow Heart Ratings ⁸				
			Size ⁴	Pressure ⁵			HH0	HH1	HH2	HH3	HH4
Crimson Sweet	11.3	3.3	2.8	2.2	1.1	18.1	90	5	0	0	5
Sentinel	12.1	3.9	3.4	2.6	1.4	15.5	85	5	5	5	0
Summer Flavor 800	11.4	3.8	3.8	2.4	2.2	18.1	100	0	0	0	0
UGR 1163	11.9	3.8	2.9	2.8	1.4	16.6	85	10	0	5	0
WT2527	11.1	3.5	2.6	2.6	1.8	16.9	80	15	0	0	5
XWD 4046	11.1	3.5	3.9	2.4	1.6	15.9	100	0	0	0	0
Average	11.5	3.6	3.2	2.5	1.6	16.8	90	6	1	2	2
LSD(0.05)	0.5	0.7	0.6	0.3	0.7	2.5	24	15	6	8	9

¹ Most measurements were obtained from fruits in harvest 1.

² SS = Soluble solids indicates sweetness, average of 5 melons per replication (20 total).

³ Rating: 1 = white, 2 = pink, 3 = red, 4 = medium-dark red, 5 = blood red.

⁴ Rating: 1 = small, 3 = medium (i.e. Crimson Sweet), 5 = large (i.e. Jubilee).

⁵ Pressure was taken from 2 sides of fruit flesh on 5 fruit per replication.

⁶ LD = Length and diameter ratio, average of 5 melons per replication (20 total).

⁷ Rind = Rind thickness (mm), measured from rind to where white and colored flesh meet, average of 5 melons per replication (20 total).

⁸ Five fruits per replication were rated for hollow heart incidence and severity (20 total).

Hollow Heart Ratings (Percentage occurrence in each category).

HH0 = Fruit with no hollow heart, (Marketable fruit).

HH1 = Fruit with minimal / hairline crack in flesh; (Marketable fruit).

HH2 = Fruit with small crack in flesh; (Marketable fruit).

HH3 = Fruit with medium to large flesh separations; (Non marketable fruit).

HH4 = Fruit with flesh separation to rind; (Non marketable fruit).