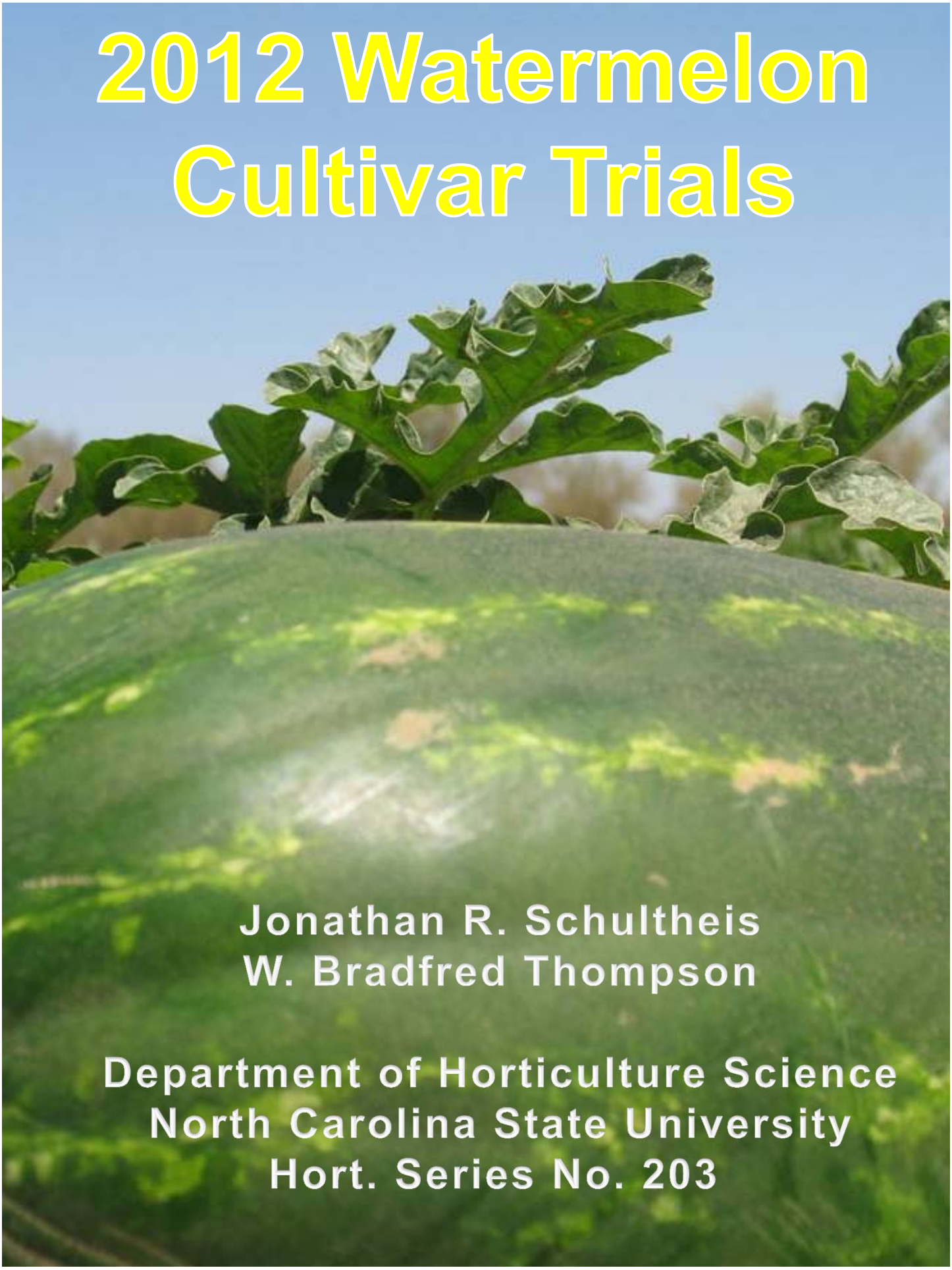
2012 Watermelon Cultivar Trials



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Department of Horticulture Science
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Hort. Series No. 203

2012
North Carolina
Watermelon
Cultivar Trials

Hort. Series # 203

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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, (2012 North Carolina Agricultural Chemicals Manual, (http://ipm.ncsu.edu/Agchem/agchem.html).

Acknowledgments

We gratefully acknowledge the assistance of Cathy Herring (Superintendent) and Kirby Jones (Horticulture Supervisor), Central Crops Research Station, Clayton, NC, as well as, the personnel at the research station for their help in establishing, maintaining, and harvesting the cultivar evaluation trials. We want to also acknowledge the following for their assistance with the trials: Gwyndolyn Jones, Whitney Phillips, Susan Barkley, Chen Jiang, and Ben McMurray. The cooperation and support of Abbott & Cobb, Inc.; Clifton Seed Company; DP Seeds; Harris Moran; Nunhems; Origene Seeds; Sakata Seed Company; Seminis/Monsanto; Syngenta Seeds, Inc.; United Genetics; Willhite Seed, Inc.; and Zeraim Gedera Seed were also appreciated.

Disclaimer
This publication presents data from the cultivar evaluation trials conducted during 2012. 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 2012 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 eighth in production among U.S. states nationally in 2011 representing 5.0% of the nation's watermelon production. Approximately 7,600 acres valued at nearly $29.1 million were produced in North Carolina in 2011. Growers in NC are always interested in finding varieties that are high yielding and consistent quality. Some of the watermelon quality issues that are being given more consideration by seed companies and consumers are the health benefits that might be gained from eating this product. For example, lycopene and citrulline are specific traits of interest and the savvy consumer is more attune to the benefits that watermelons in general can confer. In addition, more focus has been given to breeding deeper red flesh cultivars, reducing seed trace size, reducing the incidence and severity of hollow heart, improving presentation of watermelons sold as halves or quarters by distinct rind flesh delineation, and the development of firm flesh for the fresh cut market in retail grocery stores and other outlets. Specifically, we spend considerable efforts and resources evaluating hollow heart, seed trace size, and flesh firmness.

Our focus has been the standard size triploid test as evidenced by the high number of entries in that trial. However, we also evaluate diploid watermelons as well. A substantial amount of the triploid acreage grown does not use dedicated or special pollenizers. Rather, producers are able to market and sell their diploid watermelons. Thus, it is important to continue to evaluate standard diploid watermelons for their yield and quality since there is a market for these watermelons, and these can then serve dual purposes – a marketable producer and pollen source. We also evaluate mini sized watermelons. Although this segment of the market appears to have now stabilized, to those who produce this product, it is still an important part of their portfolio.

In the tables that follow, the adaptability of the various watermelons is evaluated, both for yields and quality. This should help the watermelon industry make informed decisions regarding cultivars that are currently on the market 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, 2012. Seed of the diploid and mini triploid cultigens were sown on 4-5 April, 2012. The planting medium used was Fafard Super-Fine Germinating Mix, a commercial soil less mix (Conrad Fafard, Inc.; Agawam, ME). 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 8 May 2012. Fertilizer, 30 lb/acre N and 80 lb/acre K_20, was incorporated into the beds on 2 May 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 the field on 14 November 2011 at 10.0 gallons/acre prior to the start of the growing season. Herbicides, Curbit at 4 pints/acre, Paraquat at 3 pints/acre, and Prefar at 5 quarts/acre, were applied between the plastic beds for weed control on 9 May and 8 June. 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 2012 growing season, only one pollinizer cultivar was used to enhance pollination. The pollinizer 'Ace' was interplanted within triploid plots after plants 1, 4, and 7. 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 80.4 lb/acre N and 160.8 lb/acre K_2O was drip applied through the season using a 4-0-8 liquid fertilizer. Cumulative amount of fertilizer applied for the season was 110.4, 0, and 240.8 lb/acre of N, P_2O_5, and K_2O, respectively. Insecticides were applied every week as a preventative measure beginning 25 May and on the following dates (1, 6, 13, 20, and 27 June; 4, 11, 20, and 30 July; and 8 August). The following products were alternated during consecutive spray applications to avoid insect resistance: Agramite, Asana, Capture, Perm Up, Sniper, and Thionex. 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: 25 May; 21, 6, 13, 20, and 27 June; 4, 11, and 20 July.

There were four harvests for all 3 watermelon studies. The first harvest for the triploid/diploid test was 17 July. Subsequent harvests were 26 July; 7 and 23 August. The first harvest for the mini triploid trial was 10 July, and subsequent harvests were 17 and 26 July; and 6 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. In the industry, watermelon size is often referred to as bin count. For example a 32 to 35 bin-count refers to large watermelons that exceed 18 pounds per fruit; a 45 fruit count per bin refers to medium size fruit that are in the 14 to 18 pound range, while a 60 count bin refers to small watermelons that range in size from 10 to 14 pounds. There have been market preferences that seem to ebb and flow each year with some markets preferring a 60 count per bin, while other markets prefer a medium size fruit or 45 fruit count per bin. At one time, it appeared that smaller sized triploid fruit were going to be the size of choice; however, it appears as though retailers may be backing off on this. 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 for all fruit 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 severe 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.

2012 Trial Notice: The standard size triploid test this year yielded well despite a few challenges. The field that the study was located had some areas of the field that had more clay than sand. This clay area of the field has in previous tests delayed watermelon plant growth and fruit set. However, in our 2012 trial, the plants located in the clay area of the field had an even more pronounced delay in plant growth and fruit set (up to 2 weeks) than in previous seasons when this field was used. In spite of differences in development, the yield for those plots in replications 3 and 4 was not affected, but the timing of those plants setting fruit was completely different than plants that were located within replications 1 and 2 in the field. At the end of the harvest season, plots within replications 1 and 2 produced very few fruit and had been nearly harvested completely while plots within replications 3 and 4 were either past their peak for harvest (with a substantial fruit number) or declining in production. Another challenge from the field this year that we were not aware of was the presence of the fungal disease fusarium wilt within the field. As the season progressed, it became obvious that the pollinizer 'Ace' that was used was wilting and plants were dying. 'Ace' has no resistance to any fusarium race. It appeared as though most fruit had been set before a significant portion of the pollenizer plants had died. In addition, there was some supplemental pollen from the diploid trial that likely aided fruit set in the mini-triploid trial. Yields in entries that tended to be late producers might have been affected by the decline in pollinizer plants over time. Overall, the trials were still very good despite the challenges.

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; 2012.

Entry No.	Cultigen	Company	Description
1	Affirmed	Sakata	Indistinct, medium width, medium to dark green stripes on light green background; large fruit are mainly short blocky, small and some medium size fruit are round; size varies from small to large; average to good red flesh color; indistinct rind flesh delineation but somewhat less rind thickness than several entries
2	Bold Ruler	Sakata	Indistinct, medium width, medium to dark green stripes on light green background; mainly short blocky oval; fruit size varies with large fruit being short blocky and small to medium fruit being round; good red flesh color; Indistinct rind flesh delineation
3	Citation	Sakata	Mainly distinct, narrow to medium width, very dark green stripes on a medium green background; fruit are uniformly round; fruit are mostly similar in size from small to medium; deep red flesh color; distinct rind flesh delineation
4	Crunchy Red	Harris Moran	Indistinct, medium wide, medium to dark green stripes on light green background; shape is mainly blocky to oval; shape is very uniform; size is mainly large with a few medium; indistinct rind flesh delineation; good red flesh color
5	CS 741704	Clifton Seed	Indistinct, medium wide, medium to dark green stripes on light green background; uniform shape as all round fruit; size is fairly uniform with primarily medium to medium-large fruit; good red flesh color; water soak noted next to rind around flesh
6	Cut Master ESL	Willhite	Distinct, very narrow dark green stripes that protrude or are raised on fruit when ripe on a medium to dark green background (appears as solid green); uniform blocky oval fruit shape; size is medium to large; good red flesh color; indistinct rind flesh delineation
7	Declaration	Nunhems	Indistinct, medium width, medium to dark green stripes on light green background; mainly oval fruit with a few slightly longer than round or short blocky; size range mainly from medium to large; average red flesh color; indistinct rind flesh delineation
8	Diplomat	Nunhems	Indistinct, medium wide, medium to dark green stripes on a light green background; short oval shape is consistent among fruits; size varies from small to large; average red flesh color; distinct rind flesh delineation
9	Distinction	Syngenta	Distinct, medium to wide width, dark green stripes on a light green background; round fruit, very uniform shape; some small to large size fruit that show size variability; good red flesh color; distinct rind flesh delineation
10	Fascination	Syngenta	Indistinct, medium to wide, very dark green stripes on light green background; oval to short blocky shape; sizes are mainly medium to large; deep red flesh color; excellent rind flesh delineation
11	Fusion	Origene Seeds	Mainly distinct, medium width, dark green stripes on light green background; shape is uniform and round; size varies from a mini watermelon to small standard size / ice box size; blood red flesh; excellent rind flesh delineation
12	Gilboa	Origene Seeds	Indistinct, medium width, medium to dark green stripes on light green background; shape is mainly slightly longer than round to short blocky; size is mainly medium to large; very good red flesh color; indistinct rind flesh delineation
13	HMX 1915	Harris Moran	Mainly distinct, narrow to medium width, very dark green stripes on medium green background; fruit are uniformly round; size is mainly from small to medium with a few large fruit; deep blood red flesh color; fairly distinct rind flesh delineation; water soaking next to rind was observed

Table 1. Cont.

Entry No.	Cultigen	Company	Description
14	Lemon Ice	DP Seeds	Distinct, narrow, dark green stripes on light green background; shape is uniformly round; size is mainly small to medium with a few large fruit; canary yellow flesh; distinct rind flesh delineation; soft flesh
15	Liberty	Nunhems	Indistinct, medium wide, medium green stripes on light green background; mainly oval fruit; size ranges from small to large; indistinct rind flesh delineation; good red flesh color
16	Lil Red Rock	DP Seeds	Distinct, narrow, very dark green stripes shadowed by medium green on a light green background; fruit are uniformly round; size is fairly uniform from small/ice box size to medium size; deep red flesh color; distinct rind flesh delineation; thin rind
17	Maxima	Origene Seeds	Mainly distinct, medium width, very dark green stripes on a medium to light green background (dark rind fruit); mainly short oval fruit to round; size is primarily large; very deep/blood red flesh color; good rind flesh delineation
18	Melody	Syngenta	Indistinct, medium width, dark green stripes shadowed by medium green on a light green background; uniform round shape; fruit size is variable from small to medium to large; deep red flesh color; distinct rind flesh delineation
19	Middie Sweet	Clifton Seed	Indistinct, medium width, dark green stripes on light green background; shape is uniform and round; size is uniform and mainly a small standard size / ice box size; good red flesh color; good rind flesh delineation; relatively thin rind
20	Millionaire	Harris Moran	Indistinct, medium to wide, medium to dark green stripes on a light green background; round, short blocky, slightly longer than round as shapes are somewhat variable; sizes range from small to large and is variable; good red flesh; indistinct rind flesh delineation
21	Orange Crisp	US Seedless	Distinct, narrow, dark green stripes on a light green background; shape is uniformly round; size ranges from small to large; good bright orange flesh color that fades over time after cutting; indistinct rind flesh delineation
22	Red Rock	DP Seeds	Indistinct, medium width, medium to dark green stripes on light green background; fruit mainly short blocky to oval; size can vary from small to large, but mainly medium to large sizes; good red flesh color; distinct rind flesh delineation
23	Sugar Coat	Zeraim Gedera	Indistinct, medium wide, medium to dark green stripes on light green background; fruit are mainly blocky oval and have uniform shape; most are large fruit with a few medium size fruit; deep red flesh color; very thick rind
24	Sugared	Zeraim Gedera	Indistinct, medium width, medium to dark green stripes on light green background; fruits are blocky to short blocky; size is uniformly large; indistinct rind flesh delineation; very thick rind; deep red flesh color
25	Summer Sweet 5234	Abbott & Cobb	Indistinct, medium to wide, medium green stripes on light green background; large fruit are mainly oval/short blocky shape, small fruit are mainly round; sizes are variable from small to large; average red flesh color; indistinct rind flesh delineation with some fruit having yellow watersoaking color next to rind; thick rind
26	Super Seedless 6177	Abbott & Cobb	Mainly distinct, medium to wide, dark green stripes on light green background; uniform round shape; size varies some, but mainly medium to large; average red flesh color; indistinct rind flesh delineation

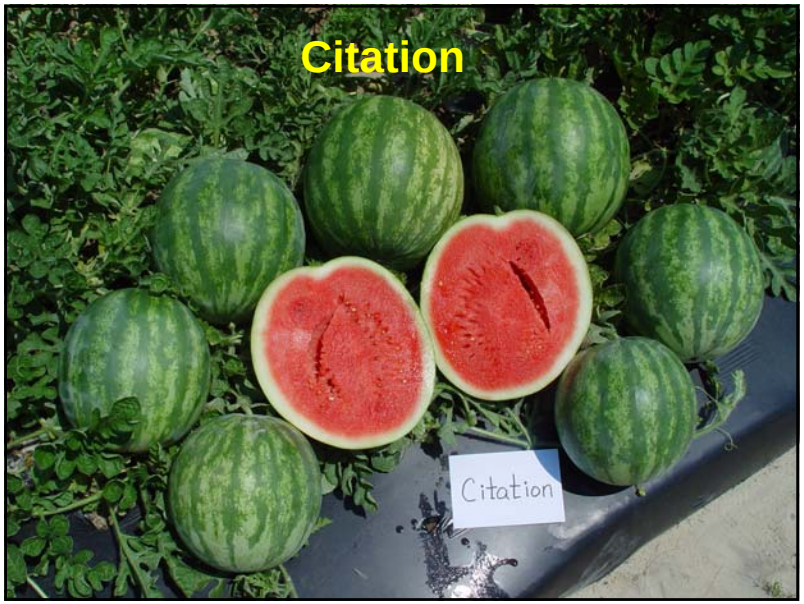
Table 1. Cont.

Entry No.	Cultigen	Company	Description
27	Super Seedless 7177	Abbott & Cobb	Indistinct, medium width, medium to dark green stripes on a light green background; short blocky or an oval block shape, shape is fairly uniform; size is mainly medium to large fruit; average red flesh color; indistinct rind flesh delineation
28	Super Seedless 7187	Abbott & Cobb	Indistinct, medium wide, medium to dark green stripes on light green background; uniform short blocky shape; sizes are mainly medium to large; good red flesh color; some fruit having water soaking appearance next to rind
29	Super Seedless 7197	Abbott & Cobb	Indistinct, medium width, medium to dark green stripes on light green background; fruit shapes vary somewhat; round, short round, short blocky; size varies from small to large; good red flesh color; indistinct rind flesh delineatior
30	Super Seedless 7387	Abbott & Cobb	Indistinct, medium width, medium to dark green stripes on light green background; mainly blocky/oval fruit; mainly large fruit; good deep red flesh color; indistinct rind flesh delineation
31	Super Seedless 9651	Abbott & Cobb	No apparent stripes; mainly a solid medium to dark green with light green background flecks (appears as a solid green); short blocky to round; uniform shape; medium to large size, uniform size; deep red flesh; distinct rind flesh delineation; large seed traces
32	SVR 8039-0241	Monsanto/ Seminis	Indistinct, medium width, dark green stripes on light to medium green background; large fruit are blocky to short oval, small fruit are slightly longer than round; size varies considerably from small to large fruit; deep red flesh; excellent rind flesh delineation
33	SVR 8039-0257	Monsanto/ Seminis	Indistinct, very wide, very dark green stripes on a light green background; large fruit are short blocky, small fruit either are round or slightly longer than round; shape is somewhat variable, but fairly uniform; size is variable from small to large fruit; deep red flesh color; fairly distinct rind flesh delineation; fairly thin rind
34	SWT 7829	Sakata	Indistinct, medium width, medium to dark green stripes on a light green background; oblong and slightly oval; shape somewhat variable; sizes range from small to large; good red flesh color; indistinct rind flesh delineation
35	Tri-X-313	Syngenta	Indistinct, medium width, medium to dark green stripes on light green background; fruit are uniform in shape which is mainly blocky oval; sizes are fairly uniform from medium to large; average red color; indistinct rind flesh delineation
36	Troubadour	Harris Moran	Indistinct, medium wide, dark green stripes with medium green shadow on a light green background; mainly blocky shape; small to medium size; small size tend to round; good deep red flesh
37	WDL 9405	Syngenta	Indistinct, wide, dark green stripes on light green background; mainly blocky, oval fruit with a few round; oval fruit are primarily large size while round fruit are mainly medium to large size; dark red flesh; distinct rind flesh delineation
38	WDL 9408	Syngenta	Indistinct, medium to wide dark green stripes on light green background; blocky oval or most slightly longer than round; fairly uniform shape; size is mainly medium, but varied from small to large; excellent rind flesh delineation; excellent red color; did have a fair amount of hard seeds in several fruit
39	WDL 9409	Syngenta	Mainly indistinct, medium wide, dark green stripes on light green background; mainly oval fruit with some smaller round fruit; uniform in shape; uniform size being medium to large; dark red flesh; distinct rind flesh delineation
40	WDL-0406	Zeraim Gedera	Indistinct, medium width, dark green stripes on light green background; uniformity in shape as all fruit were round; mainly small fruit with a few medium size fruit ; deep red flesh color; excellent rind flesh delineation

Table 1. Cont.

Entry No.	Cultigen	Company	Description
41	WDL-0412	Zeraim Gedera	Indistinct, narrow to medium width, dark green stripes on a light green background; uniform shape with all fruit slightly longer than round; size is mainly small with a few large fruit; very good red flesh color; distinct rind flesh delineation; thin rind
42	WX 4838	Willhite	Indistinct, medium wide, medium to dark green stripes on a light green background; uniformly round fruit; small to large size fruit as size is variable; average red flesh color; indistinct rind flesh delineation; very apparent water soaking appearance next to rind
43	WX 4868	Willhite	Indistinct, medium wide, medium to dark green stripes on a light green background; short, blocky large fruit with uniform shape; size is mainly medium to large; average red color; indistinct rind flesh delineation; very apparent water soaking appearance around flesh next to rind
44	XWT 0079	Sakata	Indistinct, medium width, medium to dark green stripes on a light green background; fruits are fairly uniform in shape as they are mainly round and occasionally short blocky; size is mainly small with a few large fruit; average, but good red flesh color; indistinct rind flesh delineation

Figure 1. Triploid Cultivar Pictures



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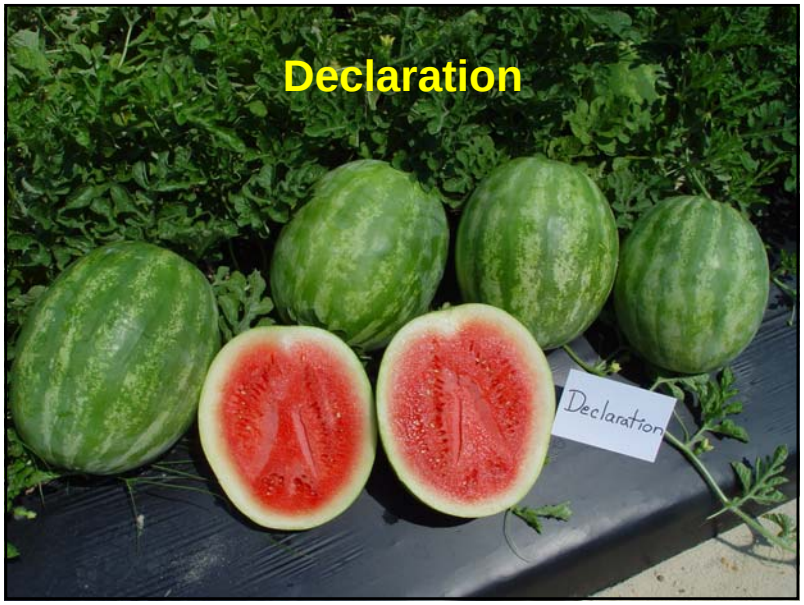

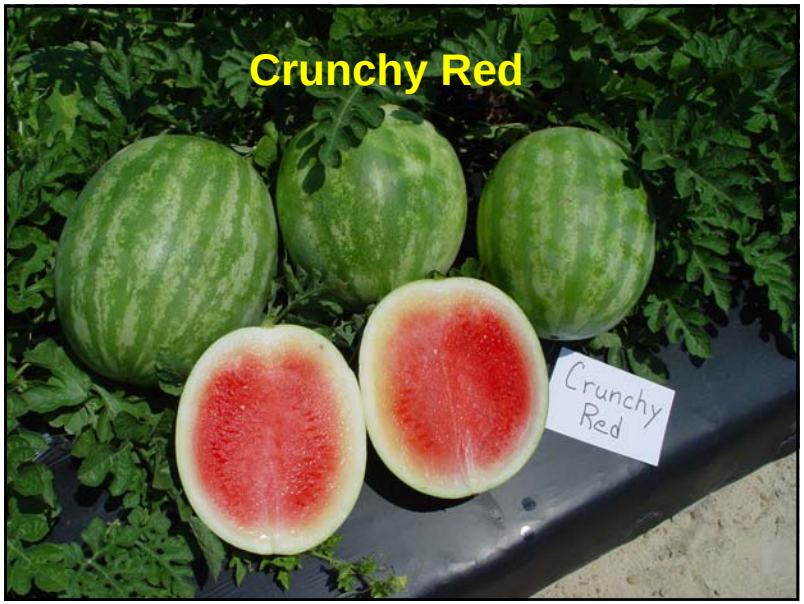

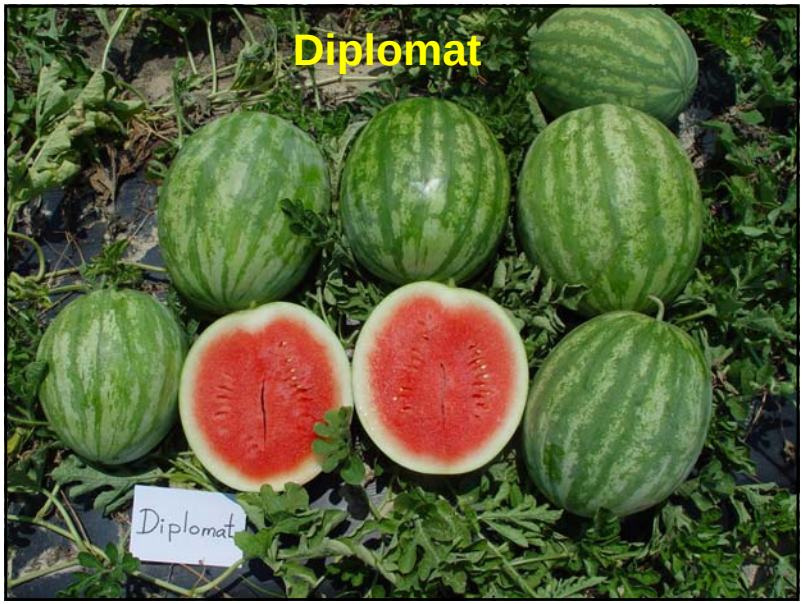

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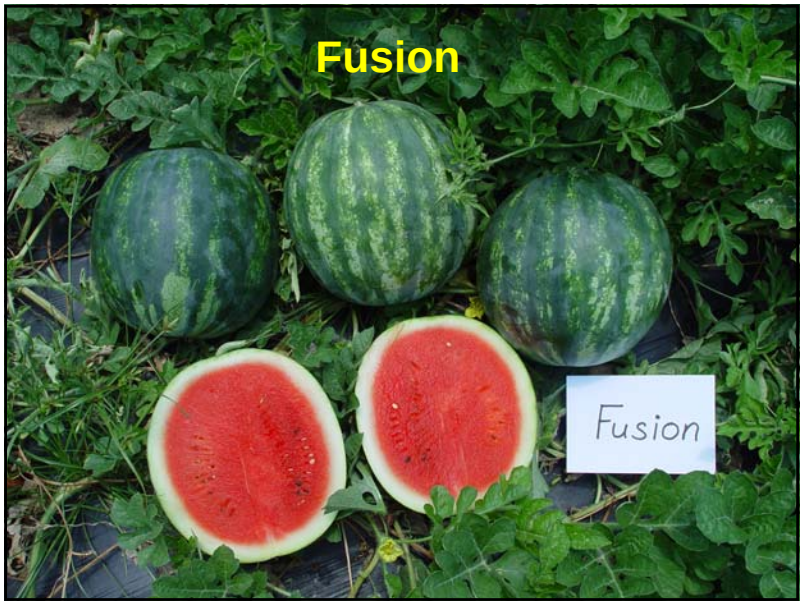

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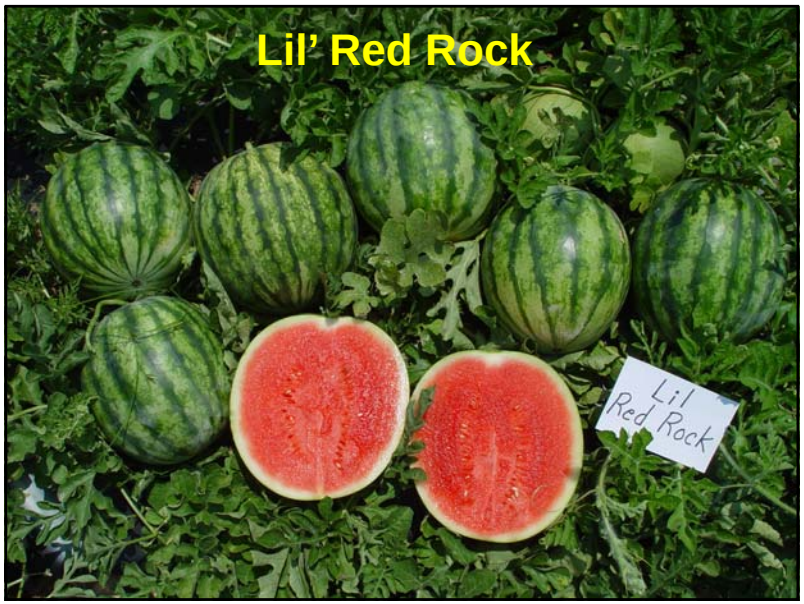

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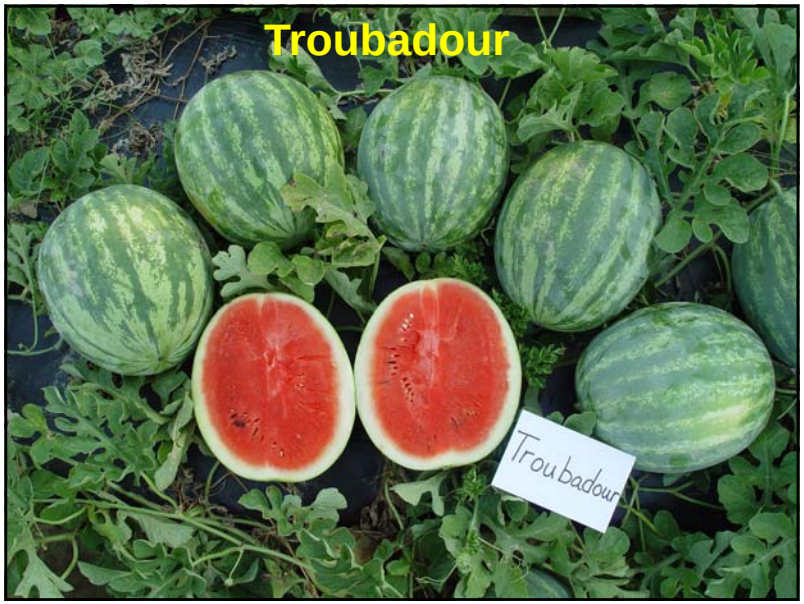

Figure 1. Triploid Cultivar Pictures

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Table 2. Triploid Red-Flesh watermelon hybrid cultivar trial. **Fruit number** for **harvest 1** by various weight classes, (per acre), including average fruit size[1]. **Clayton, N.C. 2012.**

	Seed		Fruit size category						Total No./	Mkt No./	Avg
Cultivar	Company	Rank[1]	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +	Acre	Acre[2]	wt.
Affirmed	Sakata	7	0	44	131	610	174	349	1307	1263	15.6
Bold Ruler	Sakata	7	44	479	436	479	174	174	1786	1263	12.5
Citation	Sakata	10	436	261	697	479	44	0	1917	1220	10.5
Crunchy Red	Harris Moran	32	0	44	174	261	87	261	828	784	17.0
CS 741704	Clifton Seed	22	349	479	44	566	218	131	1786	958	11.8
Cut Master ESL	Willhite	17	0	87	131	436	305	218	1176	1089	15.5
Declaration	Nunhems	10	0	0	174	653	218	174	1220	1220	14.7
Diplomat	Nunhems	10	0	131	218	653	218	131	1350	1220	14.0
Distinction	Syngenta	2	87	131	349	566	261	218	1612	1394	13.3
Fascination	Syngenta	24	0	0	87	131	261	436	915	915	17.7
Fusion	Origene Seeds	44	958	261	87	44	0	0	1350	131	7.0
Gilboa	Origene Seeds	6	0	44	261	566	218	261	1350	1307	15.0
HMX 1915	Harris Moran	17	44	87	261	697	87	44	1220	1089	12.9
Lemon Ice	DP Seeds	10	218	523	479	653	44	44	1960	1220	10.9
Liberty	Nunhems	3	131	174	174	610	261	305	1655	1350	13.6
Lil Red Rock	DP Seeds	16	131	392	653	479	0	0	1655	1133	10.5
Maxima	Origene Seeds	42	44	44	87	44	174	174	566	479	15.5
Melody	Syngenta	28	0	261	131	392	131	218	1133	871	14.4
Middie Sweet	Clifton Seed	42	523	479	392	87	0	0	1481	479	8.7
Millionaire	Harris Moran	3	44	131	174	566	392	218	1525	1350	14.4
Orange Crisp	US Seedless	35	349	349	44	392	44	218	1394	697	11.6
Red Rock	DP Seeds	38	174	87	174	305	87	87	915	653	9.3
Sugar Coat	Zeraim Gedera	32	87	174	0	174	349	261	1045	784	12.0
Sugarred	Zeraim Gedera	30	0	0	44	392	131	261	828	828	15.9
Summer Sweet 5234	Abbott & Cobb	24	44	131	218	261	218	218	1089	915	14.1
Super Seedless 6177	Abbott & Cobb	35	0	87	44	349	87	218	784	697	12.2
Super Seedless 7177	Abbott & Cobb	24	0	174	174	392	131	218	1089	915	14.5
Super Seedless 7187	Abbott & Cobb	32	44	131	87	436	174	87	958	784	14.5
Super Seedless 7197	Abbott & Cobb	28	87	87	131	566	174	0	1045	871	9.6
Super Seedless 7387	Abbott & Cobb	41	0	44	44	261	131	131	610	566	11.6
Super Seedless 9651	Abbott & Cobb	20	0	0	44	523	218	218	1002	1002	12.0
SVR - 0241	Monsanto	3	87	305	392	697	131	131	1742	1350	13.0
SVR - 0257	Monsanto	39	131	131	87	305	87	131	871	610	15.0
SWT 7829	Sakata	1	261	174	392	871	174	174	2047	1612	12.6
Tri-X-313	Syngenta	7	0	87	131	479	392	261	1350	1263	15.5
Troubadour	Harris Moran	17	44	131	174	697	87	131	1263	1089	14.4
WDL 9405	Syngenta	20	0	44	174	174	218	436	1045	1002	15.3
WDL 9408	Syngenta	30	87	44	131	349	174	174	958	828	14.5
WDL 9409	Syngenta	22	0	0	87	523	87	261	958	958	12.0
WDL - 0406	Zeraim Gedera	10	261	305	261	610	261	87	1786	1220	11.6
WDL - 0412	Zeraim Gedera	35	218	305	218	392	87	0	1220	697	10.8
WX 4838	Willhite	39	174	131	131	218	87	174	915	610	13.1
WX 4868	Willhite	24	0	131	87	174	392	261	1045	915	15.9
XWT 0079	Sakata	15	0	131	174	523	131	349	1307	1176	14.6
Average		- -	115	164	195	433	166	178	1251	972	13.2
LSD (0.05)		**- -**	**265**	**236**	**309**	**445**	**250**	**244**	**696**	**664**	**4.7**

[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, 2012.**

	Percentages[1] (%) by Fruit Size Category					
Cultivar	**<7.9**	**8-9.9**	**10-11.9**	**12-15.9**	**16-17.9**	**18 +**
Affirmed	0	3	10	47	13	27
Bold Ruler	2	27	24	27	10	10
Citation	23	14	36	25	2	0
Crunchy Red	0	5	21	32	11	32
CS 741704	20	27	2	32	12	7
Cut Master ESL	0	7	11	37	26	19
Declaration	0	0	14	54	18	14
Diplomat	0	10	16	48	16	10
Distinction	5	8	22	35	16	14
Fascination	0	0	10	14	29	48
Fusion	71	19	6	3	0	0
Gilboa	0	3	19	42	16	19
HMX 1915	4	7	21	57	7	4
Lemon Ice	11	27	24	33	2	2
Liberty	8	11	11	37	16	18
Lil Red Rock	8	24	39	29	0	0
Maxima	8	8	15	8	31	31
Melody	0	23	12	35	12	19
Middie Sweet	35	32	26	6	0	0
Millionaire	3	9	11	37	26	14
Orange Crisp	25	25	3	28	3	16
Red Rock	19	10	19	33	10	10
Sugar Coat	8	17	0	17	33	25
Sugarred	0	0	5	47	16	32
Summer Sweet 5234	4	12	20	24	20	20
Super Seedless 6177	0	11	6	44	11	28
Super Seedless 7177	0	16	16	36	12	20
Super Seedless 7187	5	14	9	45	18	9
Super Seedless 7197	8	8	13	54	17	0
Super Seedless 7387	0	7	7	43	21	21
Super Seedless 9651	0	0	4	52	22	22
SVR - 0241	5	17	22	40	8	8
SVR - 0257	15	15	10	35	10	15
SWT 7829	13	9	19	43	9	9
Tri-X-313	0	6	10	35	29	19
Troubadour	3	10	14	55	7	10
WDL 9405	0	4	17	17	21	42
WDL 9408	9	5	14	36	18	18
WDL 9409	0	0	9	55	9	27
WDL - 0406	15	17	15	34	15	5
WDL - 0412	18	25	18	32	7	0
WX 4838	19	14	14	24	10	19
WX 4868	0	13	8	17	37	25
XWT 0079	0	10	13	40	10	27
Average	8	12	15	35	14	16

[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 various weight classes, (per acre), including average fruit size. **Clayton, N.C. 2012.**

Cultivar	Seed Company	Rank [1]	Fruit size category (lb) <7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +	Total No./ Acre	Mkt No./ Acre[2]	Avg wt.
Affirmed	Sakata	5	0	131	261	741	44	131	1307	1176	13.7
Bold Ruler	Sakata	24	87	261	305	261	218	87	1220	871	12.7
Citation	Sakata	17	218	261	479	479	0	0	1438	958	10.5
Crunchy Red	Harris Moran	2	0	87	218	174	349	566	1394	1307	17.3
CS 741704	Clifton Seed	15	218	87	131	610	174	87	1307	1002	12.7
Cut Master ESL	Willhite	7	131	44	218	610	174	131	1307	1133	13.7
Declaration	Nunhems	24	87	87	261	261	87	261	1045	871	14.6
Diplomat	Nunhems	24	131	0	174	349	218	131	1002	871	13.7
Distinction	Syngenta	34	218	87	174	174	87	305	1045	741	14.1
Fascination	Syngenta	7	0	87	87	479	0	566	1220	1133	17.1
Fusion	Origene Seeds	42	653	218	174	174	174	0	1394	523	9.2
Gilboa	Origene Seeds	7	87	174	131	392	218	392	1394	1133	14.3
HMX 1915	Harris Moran	7	44	0	174	523	218	218	1176	1133	15.2
Lemon Ice	DP Seeds	34	436	305	305	392	44	0	1481	741	9.8
Liberty	Nunhems	41	0	87	131	305	174	0	697	610	12.5
Lil Red Rock	DP Seeds	43	305	566	349	131	0	0	1350	479	9.6
Maxima	Origene Seeds	36	0	0	44	218	44	392	697	697	19.6
Melody	Syngenta	15	87	174	261	479	131	131	1263	1002	13.3
Middie Sweet	Clifton Seed	37	87	218	392	261	0	0	958	653	10.5
Millionaire	Harris Moran	30	0	44	0	305	261	261	871	828	16.4
Orange Crisp	US Seedless	24	87	0	305	305	87	174	958	871	13.4
Red Rock	DP Seeds	11	131	218	174	392	174	349	1438	1089	14.9
Sugar Coat	Zeraim Gedera	37	87	87	44	218	131	261	828	653	14.9
Sugarred	Zeraim Gedera	32	0	0	44	349	131	261	784	784	17.0
Summer Sweet 5234	Abbott & Cobb	5	0	131	174	261	392	349	1307	1176	16.0
Super Seedless 6177	Abbott & Cobb	17	0	44	44	218	218	479	1002	958	16.8
Super Seedless 7177	Abbott & Cobb	11	44	44	44	261	436	349	1176	1089	17.1
Super Seedless 7187	Abbott & Cobb	2	44	0	174	566	44	523	1350	1307	16.2
Super Seedless 7197	Abbott & Cobb	13	87	87	392	392	87	174	1220	1045	13.6
Super Seedless 7387	Abbott & Cobb	24	44	44	174	131	131	436	958	871	16.4
Super Seedless 9651	Abbott & Cobb	37	0	44	0	349	87	218	697	653	18.0
SVR - 0241	Monsanto	1	87	131	218	958	174	174	1742	1525	13.2
SVR - 0257	Monsanto	21	87	0	218	305	218	174	1002	915	15.0
SWT 7829	Sakata	37	131	44	218	174	174	87	828	653	12.9
Tri-X-313	Syngenta	30	0	131	174	261	131	261	958	828	15.1
Troubadour	Harris Moran	32	87	87	131	436	87	131	958	784	14.0
WDL 9405	Syngenta	13	44	87	174	305	87	479	1176	1045	17.4
WDL 9408	Syngenta	24	0	0	87	349	0	436	871	871	18.4
WDL 9409	Syngenta	2	0	0	131	610	174	392	1307	1307	15.9
WDL - 0406	Zeraim Gedera	21	0	131	218	479	87	131	1045	915	14.1
WDL - 0412	Zeraim Gedera	17	44	174	131	566	131	131	1176	958	13.9
WX 4838	Willhite	44	131	131	131	131	87	87	697	436	11.7
WX 4868	Willhite	21	44	44	87	174	87	566	1002	915	17.1
XWT 0079	Sakata	17	44	87	44	653	174	87	1089	958	14.7
Average		- -	91	106	177	367	140	236	1117	920	14.5
LSD (0.05)		- -	**188**	**214**	**276**	**394**	**222**	**304**	**670**	**599**	**3.4**

[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, 2012.**

	Percentages[1] (%) by Fruit Size Category					
Cultivar	**<7.9**	**8-9.9**	**10-11.9**	**12-15.9**	**16-17.9**	**18 +**
Affirmed	0	10	20	57	3	10
Bold Ruler	7	21	25	21	18	7
Citation	15	18	33	33	0	0
Crunchy Red	0	6	16	12	25	41
CS 741704	17	7	10	47	13	7
Cut Master ESL	10	3	17	47	13	10
Declaration	8	8	25	25	8	25
Diplomat	13	0	17	35	22	13
Distinction	21	8	17	17	8	29
Fascination	0	7	7	39	0	46
Fusion	47	16	12	12	12	0
Gilboa	6	12	9	28	16	28
HMX 1915	4	0	15	44	19	19
Lemon Ice	29	21	21	26	3	0
Liberty	0	12	19	44	25	0
Lil Red Rock	23	42	26	10	0	0
Maxima	0	0	6	31	6	56
Melody	7	14	21	38	10	10
Middie Sweet	9	23	41	27	0	0
Millionaire	0	5	0	35	30	30
Orange Crisp	9	0	32	32	9	18
Red Rock	9	15	12	27	12	24
Sugar Coat	11	11	5	26	16	32
Sugarred	0	0	6	44	17	33
Summer Sweet 5234	0	10	13	20	30	27
Super Seedless 6177	0	4	4	22	22	48
Super Seedless 7177	4	4	4	22	37	30
Super Seedless 7187	3	0	13	42	3	39
Super Seedless 7197	7	7	32	32	7	14
Super Seedless 7387	5	5	18	14	14	45
Super Seedless 9651	0	6	0	50	12	31
SVR - 0241	5	8	13	55	10	10
SVR - 0257	9	0	22	30	22	17
SWT 7829	16	5	26	21	21	11
Tri-X-313	0	14	18	27	14	27
Troubadour	9	9	14	45	9	14
WDL 9405	4	7	15	26	7	41
WDL 9408	0	0	10	40	0	50
WDL 9409	0	0	10	47	13	30
WDL - 0406	0	13	21	46	8	13
WDL - 0412	4	15	11	48	11	11
WX 4838	19	19	19	19	12	12
WX 4868	4	4	9	17	9	57
XWT 0079	4	8	4	60	16	8
Average	8	9	16	33	13	22

[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 various weight classes, (per acre), including average fruit size. **Clayton, N.C. 2012.**

Cultivar	Seed Company	Rank[1]	Fruit size category (lb) <7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +	Total No./ Acre	Mkt No./ Acre[2]	Avg wt.[3]
Affirmed	Sakata	13	87	87	174	218	87	131	784	610	10.9
Bold Ruler	Sakata	43	44	44	0	0	87	0	174	87	5.9
Citation	Sakata	33	218	131	87	218	44	0	697	349	10.3
Crunchy Red	Harris Moran	13	0	131	44	305	44	218	741	610	11.6
CS 741704	Clifton Seed	27	87	87	87	174	44	87	566	392	11.5
Cut Master ESL	Willhite	42	131	174	0	87	0	0	392	87	9.1
Declaration	Nunhems	17	44	44	87	261	44	174	653	566	13.9
Diplomat	Nunhems	27	44	131	87	305	0	0	566	392	12.1
Distinction	Syngenta	20	87	44	87	87	87	218	610	479	13.9
Fascination	Syngenta	25	44	0	44	131	261	0	479	436	11.0
Fusion	Origene Seeds	44	610	131	0	0	0	0	741	0	6.0
Gilboa	Origene Seeds	27	131	44	44	87	87	174	566	392	10.8
HMX 1915	Harris Moran	11	44	44	0	436	218	44	784	697	15.2
Lemon Ice	DP Seeds	27	349	174	131	218	44	0	915	392	10.2
Liberty	Nunhems	12	44	44	87	349	87	131	741	653	13.2
Lil Red Rock	DP Seeds	33	436	131	218	131	0	0	915	349	8.7
Maxima	Origene Seeds	7	87	131	0	218	261	305	1002	784	13.6
Melody	Syngenta	33	131	131	174	87	87	0	610	349	12.9
Middie Sweet	Clifton Seed	13	349	349	348	261	0	0	1307	610	9.0
Millionaire	Harris Moran	20	87	44	131	218	131	0	610	479	9.3
Orange Crisp	US Seedless	27	87	131	44	174	131	44	610	392	10.6
Red Rock	DP Seeds	9	44	44	348	305	44	44	828	741	11.1
Sugar Coat	Zeraim Gedera	33	0	0	0	174	44	131	349	349	12.4
Sugarred	Zeraim Gedera	38	87	0	44	218	44	0	392	305	10.2
Summer Sweet 5234	Abbott & Cobb	9	174	87	174	218	261	87	1002	741	12.6
Super Seedless 6177	Abbott & Cobb	2	44	0	87	392	261	218	1002	958	15.2
Super Seedless 7177	Abbott & Cobb	5	0	0	218	436	44	131	828	828	14.3
Super Seedless 7187	Abbott & Cobb	20	0	131	44	174	131	131	610	479	14.8
Super Seedless 7197	Abbott & Cobb	27	174	174	87	44	87	174	741	392	8.8
Super Seedless 7387	Abbott & Cobb	33	44	0	44	174	87	44	392	349	14.6
Super Seedless 9651	Abbott & Cobb	1	131	87	131	523	131	392	1394	1176	10.4
SVR - 0241	Monsanto	20	0	87	131	261	87	0	566	479	12.3
SVR - 0257	Monsanto	7	87	305	218	305	131	131	1176	784	12.8
SWT 7829	Sakata	40	131	218	131	44	44	0	566	218	7.0
Tri-X-313	Syngenta	13	87	44	87	218	174	131	741	610	12.9
Troubadour	Harris Moran	4	87	0	131	697	44	0	958	871	12.9
WDL 9405	Syngenta	38	87	44	0	131	44	131	436	305	14.4
WDL 9408	Syngenta	2	0	131	218	392	87	261	1089	958	14.5
WDL 9409	Syngenta	5	44	131	218	523	0	87	1002	828	11.7
WDL - 0406	Zeraim Gedera	20	87	44	44	174	174	87	610	479	13.1
WDL - 0412	Zeraim Gedera	18	131	87	131	305	0	87	741	523	12.1
WX 4838	Willhite	18	261	436	87	305	87	44	1220	523	10.8
WX 4868	Willhite	40	44	0	44	87	87	0	261	218	5.9
XWT 0079	Sakata	25	44	131	131	87	218	0	610	436	9.4
Average		- -	112	100	105	231	92	87	727	515	11.5
LSD (0.05)		**- -**	**214**	**201**	**198**	**288**	**200**	**211**	**592**	**490**	**5.8**

[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 t 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, 2012.**

	Percentages[1] (%) by Fruit Size Category					
Cultivar	**<7.9**	**8-9.9**	**10-11.9**	**12-15.9**	**16-17.9**	**18 +**
Affirmed	11	11	22	28	11	17
Bold Ruler	25	25	0	0	50	0
Citation	31	19	12	31	6	0
Crunchy Red	0	18	6	41	6	29
CS 741704	15	15	15	31	8	15
Cut Master ESL	0	0	0	0	0	0
Declaration	7	7	13	40	7	27
Diplomat	8	23	15	54	0	0
Distinction	14	7	14	14	14	36
Fascination	9	0	9	27	55	0
Fusion	82	18	0	0	0	0
Gilboa	23	8	8	15	15	31
HMX 1915	6	6	0	56	28	6
Lemon Ice	38	19	14	24	5	0
Liberty	6	6	12	47	12	18
Lil Red Rock	48	14	24	14	0	0
Maxima	9	13	0	22	26	30
Melody	21	21	29	14	14	0
Middie Sweet	27	27	27	20	0	0
Millionaire	14	7	21	36	21	0
Orange Crisp	14	21	7	29	21	7
Red Rock	5	5	42	37	5	5
Sugar Coat	0	0	0	50	13	38
Sugarred	22	0	11	56	11	0
Summer Sweet 5234	17	9	17	22	26	9
Super Seedless 6177	4	0	9	39	26	22
Super Seedless 7177	0	0	26	53	5	16
Super Seedless 7187	0	21	7	29	21	21
Super Seedless 7197	24	24	12	6	12	24
Super Seedless 7387	11	0	11	44	22	11
Super Seedless 9651	9	6	9	37	9	28
SVR - 0241	0	15	23	46	15	0
SVR - 0257	7	26	19	26	11	11
SWT 7829	23	38	23	8	8	0
Tri-X-313	12	6	12	29	24	18
Troubadour	9	0	14	73	5	0
WDL 9405	20	10	0	30	10	30
WDL 9408	0	12	20	36	8	24
WDL 9409	4	13	22	52	0	9
WDL - 0406	14	7	7	29	29	14
WDL - 0412	18	12	18	41	0	12
WX 4838	21	36	7	25	7	4
WX 4868	17	0	17	33	33	0
XWT 0079	7	21	21	14	36	0
Average	15	12	14	31	14	12

[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. 2012.**

Cultivar	Seed Company	Rank[1]	Fruit size category (lb) <7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +	Total No./ Acre	Mkt No./ Acre[2]	Avg wt.[3]
Affirmed	Sakata	4	44	87	218	349	131	44	871	741	12.8
Bold Ruler	Sakata	13	131	218	305	174	0	131	958	610	5.8
Citation	Sakata	36	610	349	87	261	0	0	1307	349	9.9
Crunchy Red	Harris Moran	5	44	218	261	349	44	44	958	697	12.2
CS 741704	Clifton Seed	5	218	218	261	349	87	0	1133	697	10.7
Cut Master ESL	Willhite	29	566	436	261	174	0	0	1438	436	8.9
Declaration	Nunhems	1	0	87	261	392	218	261	1220	1133	13.7
Diplomat	Nunhems	16	261	87	174	261	87	44	915	566	12.6
Distinction	Syngenta	23	44	87	261	174	0	44	610	479	8.7
Fascination	Syngenta	5	87	174	349	174	131	44	958	697	12.0
Fusion	Origene Seeds	39	828	87	174	0	44	44	1176	261	6.9
Gilboa	Origene Seeds	35	174	349	87	261	44	0	915	392	6.6
HMX 1915	Harris Moran	2	131	218	261	479	87	0	1176	828	12.8
Lemon Ice	DP Seeds	44	392	218	44	44	0	0	697	87	8.2
Liberty	Nunhems	21	87	174	174	305	44	0	784	523	12.0
Lil Red Rock	DP Seeds	37	1045	697	218	87	0	0	2047	305	7.7
Maxima	Origene Seeds	16	218	174	218	174	131	44	958	566	8.2
Melody	Syngenta	42	261	305	87	131	0	0	784	218	7.1
Middie Sweet	Clifton Seed	39	610	479	131	131	0	0	1350	261	8.1
Millionaire	Harris Moran	16	174	174	305	218	44	0	915	566	10.4
Orange Crisp	US Seedless	23	392	131	131	305	44	0	1002	479	10.0
Red Rock	DP Seeds	21	87	261	131	87	131	174	871	523	13.2
Sugar Coat	Zeraim Gedera	37	0	44	87	131	0	87	349	305	6.8
Sugarred	Zeraim Gedera	16	87	44	44	218	44	261	697	566	10.1
Summer Sweet 5234	Abbott & Cobb	5	349	44	218	349	87	44	1089	697	10.2
Super Seedless 6177	Abbott & Cobb	10	0	261	87	261	87	218	915	653	13.8
Super Seedless 7177	Abbott & Cobb	10	87	131	218	436	0	0	871	653	11.4
Super Seedless 7187	Abbott & Cobb	13	218	87	174	349	44	44	915	610	11.4
Super Seedless 7197	Abbott & Cobb	16	131	131	261	174	44	87	828	566	11.8
Super Seedless 7387	Abbott & Cobb	39	87	131	131	44	0	87	479	261	8.4
Super Seedless 9651	Abbott & Cobb	23	87	174	174	174	87	44	741	479	11.5
SVR - 0241	Monsanto	29	218	174	174	131	44	87	828	436	7.3
SVR - 0257	Monsanto	29	131	218	174	174	44	44	784	436	7.6
SWT 7829	Sakata	23	44	261	261	131	87	0	784	479	11.5
Tri-X-313	Syngenta	43	174	87	131	0	0	0	392	131	6.2
Troubadour	Harris Moran	29	131	349	174	174	44	44	915	436	11.4
WDL 9405	Syngenta	23	0	131	131	174	44	131	610	479	13.4
WDL 9408	Syngenta	3	0	131	218	261	131	174	915	784	11.0
WDL 9409	Syngenta	13	44	131	261	87	87	174	784	610	13.5
WDL - 0406	Zeraim Gedera	29	174	436	261	131	44	0	1045	436	7.9
WDL - 0412	Zeraim Gedera	10	261	392	305	174	131	44	1307	653	11.1
WX 4838	Willhite	29	305	261	87	174	44	131	1002	436	11.4
WX 4868	Willhite	5	131	261	261	436	0	0	1089	697	8.4
XWT 0079	Sakata	23	131	131	131	261	44	44	741	479	11.1
Average		- -	209	210	190	212	54	59	935	516	10.1
LSD (0.05)		**- -**	**377**	**323**	**267**	**279**	**147**	**173**	**742**	**521**	**5.2**

[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 tl 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, 2012.**

	Percentages[1] (%) by Fruit Size Category					
Cultivar	**<7.9**	**8-9.9**	**10-11.9**	**12-15.9**	**16-17.9**	**18 +**
Affirmed	5	10	25	40	15	5
Bold Ruler	14	23	32	18	0	14
Citation	47	27	7	20	0	0
Crunchy Red	5	23	27	36	5	5
CS 741704	19	19	23	31	8	0
Cut Master ESL	39	30	18	12	0	0
Declaration	0	7	21	32	18	21
Diplomat	29	10	19	29	10	5
Distinction	7	14	43	29	0	7
Fascination	9	18	36	18	14	5
Fusion	70	7	15	0	4	4
Gilboa	19	38	10	29	5	0
HMX 1915	11	19	22	41	7	0
Lemon Ice	56	31	6	6	0	0
Liberty	11	22	22	39	6	0
Lil Red Rock	51	34	11	4	0	0
Maxima	23	18	23	18	14	5
Melody	33	39	11	17	0	0
Middie Sweet	45	35	10	10	0	0
Millionaire	19	19	33	24	5	0
Orange Crisp	39	13	13	30	4	0
Red Rock	10	30	15	10	15	20
Sugar Coat	0	13	25	38	0	25
Sugarred	12	6	6	31	6	37
Summer Sweet 5234	32	4	20	32	8	4
Super Seedless 6177	0	29	10	29	10	24
Super Seedless 7177	10	15	25	50	0	0
Super Seedless 7187	24	10	19	38	5	5
Super Seedless 7197	16	16	32	21	5	11
Super Seedless 7387	18	27	27	9	0	18
Super Seedless 9651	12	24	24	24	12	6
SVR - 0241	26	21	21	16	5	11
SVR - 0257	17	28	22	22	6	6
SWT 7829	6	33	33	17	11	0
Tri-X-313	44	22	33	0	0	0
Troubadour	14	38	19	19	5	5
WDL 9405	0	21	21	29	7	21
WDL 9408	0	14	24	29	14	19
WDL 9409	6	17	33	11	11	22
WDL - 0406	17	42	25	13	4	0
WDL - 0412	20	30	23	13	10	3
WX 4838	30	26	9	17	4	13
WX 4868	12	24	24	40	0	0
XWT 0079	18	18	18	35	6	6
Average	20	22	21	23	6	7

[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 cumulative harvests, (4), by various weight classes (per acre)including fruit number per plant. **Clayton, N.C., 2012.**

		Fruit size category (lb)						Total	Total	Fruit No./
Cultivar	Rank[1]	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +	Number	Mkt. No.[2]	Plant
Affirmed	1	131	349	784	1917	436	653	4269	3790	2.5
Bold Ruler	27	479	1002	1045	915	479	392	4312	2831	2.5
Citation	25	1481	1002	1350	1438	87	0	5358	2875	3.1
Crunchy Red	9	44	479	697	1089	523	1089	3920	3398	2.3
CS 741704	19	871	871	523	1699	523	305	4792	3049	2.8
Cut Master ESL	31	828	741	610	1307	479	349	4312	2744	2.5
Declaration	1	131	218	784	1568	566	871	4138	3790	2.4
Diplomat	19	436	349	653	1568	523	305	3833	3049	2.2
Distinction	18	479	349	871	1002	436	784	3920	3093	2.3
Fascination	14	174	261	566	915	653	1045	3616	3180	2.1
Fusion	44	3093	697	436	218	218	44	4705	915	2.7
Gilboa	12	479	610	523	1307	566	828	4312	3223	2.5
HMX 1915	4	261	349	697	2134	610	305	4356	3746	2.5
Lemon Ice	36	1394	1220	958	1307	131	44	5053	2439	2.9
Liberty	17	261	479	566	1568	566	436	3877	3136	2.2
Lil Red Rock	39	1917	1786	1438	828	0	0	5968	2265	3.4
Maxima	34	349	349	349	653	610	915	3223	2527	1.9
Melody	36	523	871	653	1089	349	349	3833	2439	2.2
Middie Sweet	42	1568	1525	1263	741	0	0	5097	2004	2.9
Millionaire	12	305	392	610	1307	828	479	3920	3223	2.3
Orange Crisp	36	915	610	523	1176	305	436	3964	2439	2.3
Red Rock	23	479	610	828	1089	436	653	4095	3006	2.4
Sugar Coat	40	261	305	131	697	523	741	2657	2091	1.5
Sugarred	35	174	44	174	1176	349	784	2701	2483	1.6
Summer Sweet 5234	6	566	392	784	1089	958	697	4487	3528	2.6
Super Seedless 6177	11	87	392	261	1220	653	1133	3746	3267	2.2
Super Seedless 7177	7	131	349	653	1525	610	697	3964	3485	2.3
Super Seedless 7187	14	305	349	479	1525	392	784	3833	3180	2.2
Super Seedless 7197	24	566	479	871	1176	392	436	3920	2875	2.3
Super Seedless 7387	41	261	218	392	610	349	697	2527	2047	1.5
Super Seedless 9651	10	261	305	349	1568	523	871	3877	3311	2.2
SVR - 0241	1	436	697	915	2047	436	392	4922	3790	2.8
SVR - 0257	31	479	653	697	1089	479	479	3877	2744	2.2
SWT 7829	24	610	697	1002	1220	479	261	4269	2962	2.5
Tri-X-313	27	261	349	523	958	697	653	3441	2831	2.0
Troubadour	14	349	566	610	2004	261	305	4095	3180	2.4
WDL 9405	27	131	305	479	784	392	1176	3267	2831	1.9
WDL 9408	8	131	305	653	1350	392	1045	3877	3441	2.2
WDL 9409	5	87	261	697	1742	349	915	4051	3703	2.3
WDL - 0406	19	566	915	784	1394	566	305	4530	3049	2.6
WDL - 0412	27	653	958	784	1438	349	261	4443	2831	2.6
WX 4838	42	871	958	436	828	305	436	3833	2004	2.2
WX 4868	31	305	436	479	871	566	828	3485	2744	2.0
XWT 0079	19	218	479	479	1525	566	479	3746	3049	2.2
Average	- -	552	580	667	1242	452	560	4055	2922	2.3
LSD(0.05)	**- -**	**625**	**501**	**476**	**654**	**416**	**468**	**1103**	**975**	**0.6**

[1] Ranked according to total marketable number.

[2] Includes fruit ≥ 10 pounds.

Table 11. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by **number** within each fruit size category for **cumulative** harvests. **Clayton, NC., 2012.**

	Percentages[1] (%) by Fruit Size Category (lb)					
Cultivar	**<7.9**	**8-9.9**	**10-11.9**	**12-15.9**	**16-17.9**	**18 +**
Affirmed	3	8	18	45	10	15
Bold Ruler	11	23	24	21	11	9
Citation	28	19	25	27	2	0
Crunchy Red	1	12	18	28	13	28
CS 741704	18	18	11	35	11	6
Cut Master ESL	19	17	14	30	11	8
Declaration	3	5	19	38	14	21
Diplomat	11	9	17	41	14	8
Distinction	12	9	22	26	11	20
Fascination	5	7	16	25	18	29
Fusion	66	15	9	5	5	1
Gilboa	11	14	12	30	13	19
HMX 1915	6	8	16	49	14	7
Lemon Ice	28	24	19	26	3	1
Liberty	7	12	15	40	15	11
Lil Red Rock	32	30	24	14	0	0
Maxima	11	11	11	20	19	28
Melody	14	23	17	28	9	9
Middie Sweet	31	30	25	15	0	0
Millionaire	8	10	16	33	21	12
Orange Crisp	12	17	18	28	12	12
Red Rock	14	16	23	29	11	6
Sugar Coat	8	10	15	28	20	19
Sugarred	9	14	15	49	6	7
Summer Sweet 5234	4	9	15	24	12	36
Super Seedless 6177	3	8	17	35	10	27
Super Seedless 7177	2	6	17	43	9	23
Super Seedless 7187	13	20	17	31	13	7
Super Seedless 7197	15	22	18	32	8	6
Super Seedless 7387	23	25	11	22	8	11
Super Seedless 9651	9	13	14	25	16	24
SVR - 0241	6	13	13	41	15	13
SVR - 0257	14	16	23	29	11	6
SWT 7829	8	10	15	28	20	19
Tri-X-313	9	14	15	49	6	7
Troubadour	4	9	15	24	12	36
WDL 9405	3	8	17	35	10	27
WDL 9408	2	6	17	43	9	23
WDL 9409	13	20	17	31	13	7
WDL - 0406	15	22	18	32	8	6
WDL - 0412	23	25	11	22	8	11
WX 4838	9	13	14	25	16	24
WX 4868	6	13	13	41	15	13
XWT 0079	6	13	13	41	15	13
Average	13	15	17	31	11	14

[1] Fruit number (per cultivar and weight class) divided by the total number (per cultivar) times 100. Percentages may

Table 12. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by **number** by harvest for all 4 harvests for total and total marketable categories. **Clayton, NC., 2012.**

		Percentages[1] (%) by Harvest for Total and Total Marketable fruit							
		Harvest 1		Harvest 2		Harvest 3		Harvest 4	
Cultivar	Seed Company	Total	Total Mrkt.	Total	Total Mrkt.	Total	Total Mrkt.	Total	Total Mrkt.
Affirmed	Sakata	31	33	31	31	18	16	20	20
Bold Ruler	Sakata	41	45	28	31	4	3	22	22
Citation	Sakata	36	42	27	33	13	12	24	12
Crunchy Red	Harris Moran	21	23	36	38	19	18	24	21
CS 741704	Clifton Seed	37	31	27	33	12	13	24	23
Cut Master ESL	Willhite	27	40	30	41	9	3	33	16
Declaration	Nunhems	29	32	25	23	16	15	29	30
Diplomat	Nunhems	35	40	26	29	15	13	24	19
Distinction	Syngenta	41	45	27	24	16	15	16	15
Fascination	Syngenta	25	29	34	36	13	14	27	22
Fusion	Origene Seeds	29	14	30	57	16	0	25	29
Gilboa	Origene Seeds	31	41	32	35	13	12	21	12
HMX 1915	Harris Moran	28	29	27	30	18	19	27	22
Lemon Ice	DP Seeds	39	50	29	30	18	16	14	4
Liberty	Nunhems	43	43	18	19	19	21	20	17
Lil Red Rock	DP Seeds	28	50	23	21	15	15	34	13
Maxima	Origene Seeds	18	19	22	28	31	31	30	22
Melody	Syngenta	30	36	33	41	16	14	20	9
Middie Sweet	Clifton Seed	29	24	19	33	26	30	26	13
Millionaire	Harris Moran	39	42	22	26	16	15	23	18
Orange Crisp	US Seedless	35	29	24	36	15	16	25	20
Red Rock	DP Seeds	22	22	35	36	20	25	21	17
Sugar Coat	Zeraim Gedera	39	38	31	31	13	17	13	15
Sugarred	Zeraim Gedera	31	33	29	32	15	12	26	23
Summer Sweet 5234	Abbott & Cobb	24	26	29	33	22	21	24	20
Super Seedless 6177	Abbott & Cobb	21	21	27	29	27	29	24	20
Super Seedless 7177	Abbott & Cobb	27	26	30	31	21	24	22	19
Super Seedless 7187	Abbott & Cobb	25	25	35	41	16	15	24	19
Super Seedless 7197	Abbott & Cobb	27	30	31	36	19	14	21	20
Super Seedless 7387	Abbott & Cobb	24	28	38	43	16	17	19	13
Super Seedless 9651	Abbott & Cobb	26	30	18	20	36	36	19	14
SVR - 0241	Monsanto	35	36	35	40	12	13	17	11
SVR - 0257	Monsanto	22	22	26	33	30	29	20	16
SWT 7829	Sakata	48	54	19	22	13	7	18	16
Tri-X-313	Syngenta	39	45	28	29	22	22	11	5
Troubadour	Harris Moran	31	34	23	25	23	27	22	14
WDL 9405	Syngenta	32	35	36	37	13	11	19	17
WDL 9408	Syngenta	25	24	22	25	28	28	24	23
WDL 9409	Syngenta	24	26	32	35	25	22	19	16
WDL - 0406	Zeraim Gedera	39	40	23	30	13	16	23	14
WDL - 0412	Zeraim Gedera	27	25	26	34	17	18	29	23
WX 4838	Willhite	24	30	18	22	32	26	26	22
WX 4868	Willhite	30	33	29	33	8	8	31	25
XWT 0079	Sakata	35	39	29	31	16	14	20	16
Average		31	33	28	32	18	17	23	18

[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 13. Triploid Red-Flesh watermelon hybrid cultivar trial. **Cumulative** weight, (**cwt.**), per acre of fruit harvested over four harvests by various weight classes plus average fruit size[1]. **Clayton, N.C. 2012.**

		Fruit size category (lb)						Total Cwt./	Mkt Cwt./	Avg lb./
Cultivar	Rank[2]	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +	Acre	Acre[3]	fruit
Affirmed	3	9	32	85	270	74	131	601	560	14.1
Bold Ruler	33	23	89	115	129	82	75	513	401	11.7
Citation	37	99	87	146	189	14	0	535	349	10.0
Crunchy Red	6	3	43	77	152	88	231	593	548	15.3
CS 741704	25	59	80	56	233	89	58	575	436	11.9
Cut Master ESL	32	55	67	66	186	81	71	526	403	12.4
Declaration	1	10	18	87	215	95	178	602	574	14.4
Diplomat	24	28	32	74	214	86	63	496	437	13.1
Distinction	17	29	32	95	144	73	159	532	471	13.6
Fascination	12	9	23	61	127	113	216	550	517	15.5
Fusion	44	172	62	48	29	37	9	357	123	7.8
Gilboa	13	27	55	58	181	94	164	579	497	13.3
HMX 1915	7	18	31	77	298	105	64	593	543	13.8
Lemon Ice	40	89	110	103	171	22	8	503	303	9.9
Liberty	18	17	43	63	220	94	83	520	460	13.4
Lil Red Rock	42	114	160	156	108	0	0	538	264	9.1
Maxima	26	24	30	37	94	103	198	487	433	15.2
Melody	38	34	79	72	150	58	67	461	348	12.0
Middie Sweet	43	102	135	137	95	0	0	469	232	9.1
Millionaire	15	21	36	65	178	139	95	534	478	13.6
Orange Crisp	36	55	54	59	158	52	86	464	355	11.7
Red Rock	21	30	54	93	151	73	131	531	447	12.9
Sugar Coat	35	11	29	14	96	88	159	398	357	15.2
Sugarred	31	12	4	19	164	59	163	421	406	16.1
Summer Sweet 5234	5	38	33	87	152	162	147	620	548	13.9
Super Seedless 6177	9	3	36	29	169	110	231	577	539	15.3
Super Seedless 7177	8	9	31	71	214	103	151	579	539	14.7
Super Seedless 7187	14	22	32	52	216	66	158	546	491	14.2
Super Seedless 7197	28	33	43	94	163	67	90	491	415	12.5
Super Seedless 7387	39	13	20	43	84	58	147	365	333	14.8
Super Seedless 9651	11	16	27	38	217	88	177	563	520	14.6
SVR - 0241	10	24	64	101	282	74	75	619	531	12.6
SVR - 0257	30	27	60	76	150	81	101	496	408	12.7
SWT 7829	29	41	63	107	167	80	53	512	409	12.1
Tri-X-313	20	17	31	57	130	117	144	496	448	14.8
Troubadour	22	23	50	68	278	43	57	520	447	12.7
WDL 9405	16	9	26	54	106	67	249	510	475	15.9
WDL 9408	4	6	27	71	190	66	224	585	552	15.0
WDL 9409	2	7	24	76	243	59	187	596	565	14.7
WDL - 0406	27	32	82	86	189	97	60	546	432	12.2
WDL - 0412	34	42	85	85	200	58	56	526	399	11.9
WX 4838	41	54	86	48	115	52	84	438	298	11.3
WX 4868	23	14	40	52	121	95	178	500	446	14.5
XWT 0079	19	14	43	54	216	94	96	517	460	13.6
Average	**- -**	34	52	73	172	76	115	522	436	13.2
LSD (0.05)	**- -**	**38**	**45**	**52**	**92**	**71**	**98**	**149**	**152**	**2.1**

[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 14. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested over four harvests by **weight** within each fruit size category. **Clayton, NC, 2012.**

	Percentages[1] (%) by Fruit Size Category					
Cultivar	**< 7.9**	**8-9.9**	**10-11.9**	**12-15.9**	**16-17.9**	**18 +**
Affirmed	1	5	14	45	12	22
Bold Ruler	4	17	22	25	16	15
Citation	18	16	27	35	3	0
Crunchy Red	0	7	13	26	15	39
CS 741704	10	14	10	41	15	10
Cut Master ESL	10	13	12	35	15	13
Declaration	2	3	14	36	16	30
Diplomat	6	6	15	43	17	13
Distinction	5	6	18	27	14	30
Fascination	2	4	11	23	20	39
Fusion	48	17	14	8	10	3
Gilboa	5	9	10	31	16	28
HMX 1915	3	5	13	50	18	11
Lemon Ice	18	22	20	34	4	2
Liberty	3	8	12	42	18	16
Lil Red Rock	21	30	29	20	0	0
Maxima	5	6	8	19	21	41
Melody	7	17	16	33	13	15
Middie Sweet	22	29	29	20	0	0
Millionaire	4	7	12	33	26	18
Orange Crisp	12	12	13	34	11	18
Red Rock	6	10	17	28	14	25
Sugar Coat	3	7	4	24	22	40
Sugarred	3	1	5	39	14	39
Summer Sweet 5234	6	5	14	25	26	24
Super Seedless 6177	1	6	5	29	19	40
Super Seedless 7177	2	5	12	37	18	26
Super Seedless 7187	4	6	9	40	12	29
Super Seedless 7197	7	9	19	33	14	18
Super Seedless 7387	3	5	12	23	16	40
Super Seedless 9651	3	5	7	38	16	31
SVR - 0241	4	10	16	45	12	12
SVR - 0257	5	12	15	30	16	20
SWT 7829	8	12	21	33	16	10
Tri-X-313	4	6	12	26	24	29
Troubadour	4	10	13	54	8	11
WDL 9405	2	5	11	21	13	49
WDL 9408	1	5	12	32	11	38
WDL 9409	1	4	13	41	10	31
WDL - 0406	6	15	16	35	18	11
WDL - 0412	8	16	16	38	11	11
WX 4838	12	20	11	26	12	19
WX 4868	3	8	10	24	19	36
XWT 0079	3	8	10	42	18	19
Average	7	10	14	32	15	22

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

Table 15. Triploid Red-Flesh watermelon hybrid cultivar trial. Interior fruit quality. **Clayton, N.C., 2012.**[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
Affirmed	11.9	4.0	2.2	0.1	1.1	18.1	2.5	40	25	20	10	5
Bold Ruler	10.8	4.1	1.9	0.1	1.1	18.3	2.6	50	15	30	0	5
Citation	11.1	4.4	1.8	0.3	1.0	15.3	3.2	55	25	15	5	0
Crunchy Red	11.6	4.0	1.4	0.7	1.2	21.2	3.9	95	0	0	5	0
CS 741704	12.0	4.1	1.6	0.8	1.0	17.8	3.1	35	35	10	20	0
Cut Master ESL	11.7	4.3	2.1	0.1	1.2	18.1	2.7	45	5	20	10	20
Declaration	11.7	4.0	2.6	0.1	1.1	18.5	3.0	50	5	30	15	0
Diplomat	11.6	4.0	2.5	0.1	1.1	16.7	2.6	50	25	20	5	0
Distinction	12.5	4.3	1.8	0.1	1.0	16.8	4.0	85	5	5	5	0
Fascination	12.6	4.5	1.0	0.3	1.2	17.3	3.1	45	25	30	0	0
Fusion	11.4	4.9	1.6	0.6	1.0	14.7	4.0	100	0	0	0	0
Gilboa	12.5	4.0	2.4	0.1	1.1	18.2	2.5	55	15	10	20	0
HMX 1915	10.9	4.2	2.5	0.2	1.1	16.4	3.3	100	0	0	0	0
Lemon Ice	11.5	1.0	2.0	0.1	1.0	15.2	3.3	85	5	5	5	0
Liberty	12.1	4.1	2.3	0.1	1.1	17.3	2.9	40	20	25	15	0
Lil Red Rock	12.9	4.6	1.6	0.7	1.0	11.4	3.6	65	15	15	5	0
Maxima	12.1	4.4	1.4	0.8	1.0	17.8	3.9	90	0	10	0	0
Melody	11.6	4.4	2.3	0.4	1.0	15.7	2.7	90	5	0	5	0
Middie Sweet	11.1	4.4	1.4	0.8	1.0	13.2	3.2	85	5	0	10	0
Millionaire	11.9	3.8	1.1	0.6	1.1	20.9	3.2	70	0	15	15	0
Orange Crisp	11.3	2.0	1.3	0.3	1.0	18.8	3.3	75	20	5	0	0
Red Rock	12.1	4.1	1.4	0.5	1.2	16.0	3.2	60	10	15	10	5
Sugar Coat	12.0	4.1	1.6	0.0	1.2	20.3	3.3	60	5	0	30	5
Sugarred	12.8	4.3	1.8	0.1	1.1	18.8	3.1	50	10	10	25	5
Summer Sweet 5234	11.5	4.1	1.1	0.3	1.1	21.9	3.0	65	5	15	15	0
Super Seedless 6177	11.5	4.1	0.9	0.1	1.0	18.7	3.7	90	0	0	5	5
Super Seedless 7177	11.9	3.9	1.0	0.3	1.1	22.1	3.5	60	10	20	10	0
Super Seedless 7187	11.8	3.9	1.3	0.5	1.1	20.7	3.3	70	10	10	10	0
Super Seedless 7197	12.5	4.1	1.6	0.2	1.1	17.3	3.4	70	25	0	5	0
Super Seedless 7387	12.2	4.1	1.7	0.4	1.1	19.0	3.1	65	15	10	5	5
Super Seedless 9651	11.8	4.3	1.9	0.5	1.1	18.7	3.4	75	10	10	5	0
SVR - 0241	12.0	4.2	1.3	0.1	1.2	16.0	3.5	65	15	20	0	0
SVR - 0257	12.5	4.5	1.1	0.1	1.1	16.1	3.6	90	10	0	0	0
SWT 7829	11.7	4.1	1.3	0.3	1.1	17.3	2.9	40	40	10	10	0
Tri-X-313	12.1	3.8	1.8	0.0	1.1	18.2	2.8	55	25	10	5	5

Table 15. Triploid Red-Flesh watermelon hybrid cultivar trial. Interior fruit quality. **Clayton, N.C., 2012[1] (Cont.).**

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
Troubadour	11.9	4.1	2.1	0.7	1.1	16.0	3.3	100	0	0	0	0
WDL 9405	12.2	4.4	2.2	0.4	1.1	15.5	3.5	65	5	10	15	5
WDL 9408	11.8	4.6	1.2	0.9	1.2	15.3	3.1	75	10	15	0	0
WDL 9409	11.9	4.3	1.2	0.5	1.1	17.0	3.7	100	0	0	0	0
WDL - 0406	11.4	4.4	1.9	0.3	1.0	16.1	2.8	95	5	0	0	0
WDL - 0412	11.7	4.3	1.3	0.1	1.1	15.1	3.0	80	10	5	5	0
WX 4838	11.5	3.6	2.4	0.1	1.0	19.4	3.0	65	15	10	10	0
WX 4868	11.6	4.1	2.6	0.5	1.2	17.8	2.9	45	5	10	35	5
XWT 0079	11.9	3.9	0.6	0.5	1.1	18.9	3.4	60	30	10	0	0
Average	11.8	4.2	1.7	0.4	1.1	16.8	3.2	76	9	7	7	1
LSD (0.05)	**0.8**	**0.3**	**0.7**	**0.7**	**0.1**	**2.6**	**0.5**	**33**	**24**	**22**	**17**	**8**

[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] Rating: 1 = few, 3 = some, 5 = many. Averaged out among 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 16. Triploid mini-watermelon cultivar seed sources and descriptions; 2012

Entry No.	Cultigen	Company	Description
1	Ladybelle	Nunhems	Distinct, very narrow, very dark green stripes on a dark green background (appears to be solid dark green); uniform round shape; uniform mini melon size; average rind thickness; average seed trace size that are white to brown; good red flesh color
2	Mini Blue (seeded)	United Genetics	Indistinct, medium width, dark green stripes on a light green background; uniform round shape; mini watermelon size ranges from normal to large with some fruit being more of a ice box size; very dark blood red flesh color; fairly thin rind; fruits had many brown and black hard seeds; good rind flesh delineation *** This variety is subject to splitting and apprears to have explosive gene characteristic ***
3	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
4	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
5	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
6	Sweet n Early	Zeraim Gedera	Distinct, narrow, dark green stripes on light green background; uniform, round shape; mini melon size to more ice box size; average rind thickness; good red flesh color; small seed traces
7	Vanessa	Nunhems	Distinct, very narrow protruding dark green stripes on a dark green background (appears to be solid dark green); uniform round shape; mini melon size to small ice box size; average rind thickness; excellent red flesh color; good rind flesh delineation
8	WMZ-9162	Zeraim Gedera	Distinct, narrow, dark green stripes on a light green background; uniform round shapes; uniform mini watermelon size; good rind flesh delineation; deep red flesh color; very small white seed traces

Figure 2. Mini-triploid Cultivar Pictures

Figure 2. Mini-triploid Cultivar Pictures

Table 17. **Triploid mini watermelon** hybrid cultivar trial. **Number** of fruit harvested in **first** harvest by various weight classes (per acre) and average fruit size[1]. **Clayton, N.C., 2012.**

		Fruit Size Category									
Cultivar	Rank[2]	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total	Total Mkt[3]	Avg. Wt. (lb)
Ladybelle	3	0	109	980	327	109	109	0	1634	1089	6.6
Mini Blue	8	0	0	218	109	327	436	1089	2178	218	11.5
Petite Perfection	1	327	327	1634	109	109	0	0	2505	1960	4.7
Pixie	7	0	0	327	545	327	109	0	1307	327	7.5
Sweet Bite	5	436	327	653	218	327	0	109	2069	980	5.2
Sweet n Early	6	109	109	762	327	109	109	218	1742	871	6.8
Vanessa	3	109	109	980	327	109	0	0	1634	1089	5.7
WMZ-9162	2	545	436	762	109	109	0	0	1960	1198	4.3
Average	- -	191	177	790	259	191	95	177	1879	966	6.5
LSD(0.05)	**- -**	**461**	**456**	**764**	**472**	**548**	**393**	**340**	**1360**	**995**	**2.0**

Table 18. **Triploid mini watermelon** hybrid cultivar trial. **Number** of fruit harvested in **second** harvest by various weight classes (per acre) and average fruit size[1]. **Clayton, N.C., 2012.**

		Fruit Size Category									
Cultivar	Rank[2]	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total	Total Mkt[3]	Avg. Wt. (lb)
Ladybelle	2	0	0	2069	871	218	109	109	3376	2069	6.5
Mini Blue	6	0	0	1089	653	327	218	762	3049	1089	8.6
Petite Perfection	3	109	436	1307	436	218	436	109	3049	1742	6.9
Pixie	6	0	218	871	653	327	762	0	2831	1089	7.4
Sweet Bite	6	0	0	1307	218	218	109	109	1742	1307	6.7
Sweet n Early	5	109	109	1089	218	980	218	545	3267	1198	7.2
Vanessa	1	109	218	2178	327	545	436	109	3594	2396	6.5
WMZ-9162	4	0	327	1198	436	109	0	218	2287	1525	6.6
Average	- -	41	163	1388	476	368	286	245	2899	1552	7.0
LSD(0.05)	**- -**	**166**	**305**	**1019**	**604**	**557**	**472**	**613**	**1498**	**1086**	**1.4**

[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 19. **Triploid mini watermelon** hybrid cultivar trial. **Percentage** of fruit number harvested in **first** harvest by various weight classes (per acre).**Clayton, N.C., 2012.**

	Percentages[1] (%) 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**	**Mrkt[2]**
Ladybelle	0	7	60	20	7	7	0	67
Mini Blue	0	0	10	5	15	20	50	10
Petite Perfection	13	13	65	4	4	0	0	78
Pixie	0	0	25	42	25	8	0	25
Sweet Bite	21	16	32	11	16	0	5	47
Sweet n Early	6	6	44	19	6	6	13	50
Vanessa	7	7	60	20	7	0	0	67
WMZ-9162	28	22	39	6	6	0	0	61
Average	9	9	42	16	11	5	8	51

Table 20. **Triploid mini watermelon** hybrid cultivar trial. **Percentage** of fruit number harvested in **second and third** harvests by various weight classes (per acre). **Clayton, N.C., 2012.**

	Percentages[1] (%) 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**	**Mrkt[2]**
Ladybelle	0	0	61	26	6	3	3	61
Mini Blue	0	0	36	21	11	7	25	36
Petite Perfection	4	14	43	14	7	14	4	57
Pixie	0	8	31	23	12	27	0	38
Sweet Bite	0	0	75	13	13	6	6	75
Sweet n Early	3	3	33	7	30	7	17	37
Vanessa	3	6	61	9	15	12	3	67
WMZ-9162	0	14	52	19	5	0	10	67
Average	1	6	49	16	12	10	8	55

[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 21. **Triploid mini watermelon** hybrid cultivar trial. **Number** of fruit harvested in **third** harvest by various weight classes (per acre) and average fruit size[1]. **Clayton, N.C., 2012.**

		Fruit Size Category									
Cultivar	Rank[2]	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total	Total Mkt[3]	Avg. Wt. (lb)
Ladybelle	2	0	327	871	109	0	218	0	1525	1198	5.9
Mini Blue	7	109	0	545	327	0	109	109	1198	545	7.0
Petite Perfection	4	109	109	545	0	327	218	0	1307	653	6.8
Pixie	3	109	109	871	218	436	545	545	2831	980	7.9
Sweet Bite	7	0	109	436	109	0	218	327	1198	545	7.1
Sweet n Early	4	327	0	653	545	109	109	218	1960	653	5.8
Vanessa	1	109	545	1742	218	109	0	327	3049	2287	6.1
WMZ-9162	4	218	327	327	218	109	109	218	1525	653	7.4
Average	- -	123	191	749	218	136	191	218	1824	939	6.8
LSD(0.05)	**- -**	**354**	**466**	**913**	**559**	**392**	**309**	**518**	**1314**	**1031**	**2.8**

Table 22. **Triploid mini watermelon** hybrid cultivar trial. **Number** of fruit harvested in **fourth** harvest by various weight classes (per acre) and average fruit size[1]. **Clayton, N.C., 2012.**

		Fruit Size Category									
Cultivar	Rank[2]	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total	Total Mkt[3]	Avg. Wt. (lb)
Ladybelle	2	218	545	436	218	109	0	0	1525	980	4.9
Mini Blue	5	0	218	653	0	0	0	0	871	871	5.6
Petite Perfection	2	436	218	762	109	0	0	0	1525	980	5.0
Pixie	1	0	0	1198	653	327	109	0	2287	1198	6.6
Sweet Bite	6	0	0	545	327	218	0	0	1089	545	6.7
Sweet n Early	6	0	218	327	218	218	109	0	1089	545	7.0
Vanessa	2	0	218	762	436	0	0	218	1634	980	6.1
WMZ-9162	8	218	0	109	327	109	218	109	1089	109	7.5
Average	- -	109	177	599	286	123	54	41	1388	776	6.2
LSD(0.05)	**- -**	**413**	**354**	**637**	**507**	**340**	**271**	**180**	**960**	**802**	**2.4**

[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 23. **Triploid mini watermelon** hybrid cultivar trial. **Percentage** of fruit number harvested in **third** harvest by various weight classes (per acre).**Clayton, N.C., 2012.**

	Percentages[1] (%) 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**	**Mrkt[2]**
Ladybelle	0	21	57	7	0	14	0	79
Mini Blue	9	0	45	27	0	9	9	45
Petite Perfection	8	8	42	0	25	17	0	50
Pixie	4	4	31	8	15	19	19	35
Sweet Bite	0	9	36	9	0	18	27	45
Sweet n Early	17	0	33	28	6	6	11	33
Vanessa	4	18	57	7	4	0	11	75
WMZ-9162	14	21	21	14	7	7	14	43
Average	7	10	40	13	7	11	11	51

Table 24. **Triploid mini watermelon** hybrid cultivar trial. **Percentage** of fruit number harvested in fourth harvest by various weight classes (per acre). **Clayton, N.C., 2012.**

	Percentages[1] (%) 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**	**Mrkt[2]**
Ladybelle	14	36	29	14	7	0	0	64
Mini Blue	0	25	75	0	0	0	0	100
Petite Perfection	29	14	50	7	0	0	0	64
Pixie	0	0	52	29	14	5	0	52
Sweet Bite	0	0	50	30	20	0	0	50
Sweet n Early	0	20	30	20	20	10	0	50
Vanessa	0	13	47	27	0	0	13	60
WMZ-9162	20	0	10	30	10	20	10	10
Average	8	14	43	20	9	4	3	56

[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 25. **Triploid mini watermelon** hybrid cultivar trial. Cumulative **number** of fruit harvested over 4 harvests by various weight classes (per acre)[1]. **Clayton, N.C., 2012.**

		Fruit Size Category								
Cultivar	Rank[2]	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total	Total Mkt[3]
Ladybelle	2	218	980	4356	1525	436	436	109	8059	5336
Mini Blue	8	109	218	2505	1089	653	762	1960	7296	2723
Petite Perfection	2	980	1089	4247	653	653	653	109	8385	5336
Pixie	4	109	327	3267	2069	1416	1525	545	9257	3594
Sweet Bite	6	436	436	2940	871	762	327	545	6316	3376
Sweet n Early	7	545	436	2831	1307	1416	545	1198	8276	3267
Vanessa	1	327	1089	5663	1307	762	436	653	10237	6752
WMZ-9162	5	980	1089	2396	1089	436	327	545	6861	3485
Average	- -	463	708	3526	1239	817	626	708	8086	4234
LSD(0.05)	**- -**	**502**	**842**	**1054**	**899**	**1085**	**783**	**830**	**1863**	**1593**

[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 26. Triploid mini watermelon hybrid cultivar trial. **Cumulative** Percentage harvested by **number** within each fruit size category. **Clayton, NC, 2012.**

	Percentages[1] (%) 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	Mkt[2]
Ladybelle	3	12	54	19	6	5	1	66
Mini Blue	1	3	35	15	9	10	27	38
Petite Perfection	11	11	52	9	8	7	2	63
Pixie	1	4	36	22	14	17	6	40
Sweet Bite	8	8	46	12	13	7	7	54
Sweet n Early	6	5	35	16	17	6	15	39
Vanessa	3	10	56	12	7	4	7	66
WMZ-9162	14	16	35	16	6	5	8	51
Average	6	9	44	15	10	8	9	52
LSD(0.05)	**6**	**9**	**12**	**12**	**11**	**10**	**10**	**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.

[2]Includes fruit 3 to 7 lbs.

Table 27. Triploid mini watermelon hybrid cultivar trial. **Percent** harvested by **number** by harvest within total and total marketable categories. **Clayton, NC, 2012.**

	Percentages[1] (%) by harvest for Total and Total Marketable Fruit							
	Harvest 1		Harvest 2		Harvest 3		Harvest 4	
Cultivar	Total	Total Mrkt.	Total	Total Mrkt.	Total	Total Mrkt.	Total	Total Mrkt.
Ladybelle	20	20	42	39	19	22	19	18
Mini Blue	30	8	42	40	16	20	12	32
Petite Perfection	30	37	36	33	16	12	18	18
Pixie	14	9	31	30	31	27	25	33
Sweet Bite	33	29	28	39	19	16	17	16
Sweet n Early	21	27	39	37	24	20	13	17
Vanessa	16	16	35	35	30	34	16	15
WMZ-9162	29	34	33	44	22	19	16	3
Average	24	23	36	37	22	21	17	19

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

Table 28. **Mini Triploid** watermelon hybrid cultivar trial. Cumulative **weight** (x 100) of fruit harvested over 3 harvests by various weight classes (per acre) including average fruit weight. **Clayton, N.C., 2012.**

		Fruit Size Category (lb)									
Cultivar	Rank[1]	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total	Total Mkt[2]	Avg. Wt
Ladybelle	2	5	33	252	114	37	42	11	494	284	6.2
Mini Blue	8	3	7	155	82	56	72	269	646	163	8.9
Petite Perfection	3	23	38	227	48	55	62	16	469	265	5.7
Pixie	4	3	11	184	157	118	146	63	683	196	7.3
Sweet Bite	6	9	14	163	65	64	32	58	405	177	6.4
Sweet n Early	7	12	15	161	100	121	52	128	589	176	7.2
Vanessa	1	7	39	312	98	65	42	72	634	351	6.2
WMZ-9162	5	20	37	143	83	37	31	58	410	180	6.0
Average	- -	10	24	200	94	69	60	84	541	224	6.7
LSD(0.05)	**- -**	**12**	**29**	**55**	**68**	**93**	**74**	**97**	**125**	**70**	**0.8**

[1] Ranked according to total marketable number.
[2] Includes fruit 3 to 7 lbs.

Table 29. Triploid mini watermelon hybrid cultivar trial. Cumulative **Percentage** harvested by weight within each fruit size category. **Clayton, NC, 2012.**

	Percentages[1] (%) 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	Mkt[2]
Ladybelle	1	7	51	22	8	8	2	58
Mini Blue	0	1	24	13	9	10	42	25
Petite Perfection	5	7	48	11	12	12	4	56
Pixie	0	2	28	24	16	22	9	30
Sweet Bite	3	4	41	14	16	10	12	45
Sweet n Early	2	2	28	17	22	8	21	31
Vanessa	1	6	50	15	10	7	11	56
WMZ-9162	5	9	35	21	9	7	13	45
Average	2	5	38	17	13	11	14	43
LSD	**2**	**5**	**12**	**13**	**14**	**13**	**16**	**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.
[2] Includes fruit 3 to 7 lbs.

Table 30. Mini Triploid watermelon hybrid cultivar trial. Interior fruit quality. **Clayton, NC, 2012**.[1]

Cultivar	Rind Thickness (mm)[2]	Soluble Solids[3]	Flesh Color[4]	Average Fruit Pressure[5]	Fruit LD	Hollow Heart Ratings[6]				
						HH0	HH1	HH2	HH3	HH4
Ladybelle	14.4	11.6	4.1	3.2	0.99	100	0	0	0	0
Mini Blue	12.9	12.3	3.9	2.6	0.99	100	0	0	0	0
Petite Perfection	8.0	12.6	4.5	3.3	1.02	100	0	0	0	0
Pixie	15.9	12.5	3.8	2.8	0.97	75	0	10	15	0
Sweet Bite	13.0	11.4	4.0	3.2	0.98	95	0	0	5	0
Sweet n Early	13.6	12.2	4.1	3.2	1.00	85	5	0	10	0
Vanessa	13.7	11.8	4.2	2.6	1.00	100	0	0	0	0
WMZ-9162	11.3	12.0	4.1	3.7	0.98	90	0	5	5	0
Average	12.8	12.0	4.1	3.1	0.99	93	1	2	4	0
LSD (0.05)	**2.2**	**0.8**	**0.3**	**0.3**	**0.03**	**19**	**5**	**8**	**14**	**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 31. Diploid watermelon cultivar descriptions and seed sources; **Clayton, N.C., 2012.**

Entry No.	Cultigen	Company	Description
1	Catira	Nunhems	Indistinct, wide, dark green stripes on light green background; blocky fruit; uniform shape; size somewhat variable from medium to large; seeds are dark brown to black; deep red flesh with good rind flesh delineation
2	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
3	Montreal	Nunhems	Indistinct, very wide, dark green stripes on light green background; blocky fruit; uniform shape; size ranges from medium to large fruit; large dark seeds
4	Sentinel	Monsanto/ Seminis	Indistinct, medium width, dark green stripes on light green background; uniform shape; blocky; medium to large size fruit
5	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
6	SVR 8039-1548	Monsanto/ Seminis	Indistinct, wide, dark green stripes on light green background; blocky fruit; uniform shaped fruit; mainly large sized fruits; deep red to blood red flesh with dark brown/black seeds; good rind flesh delineation
7	WT 2527	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

Figure 3. Diploid Cultivar Pictures

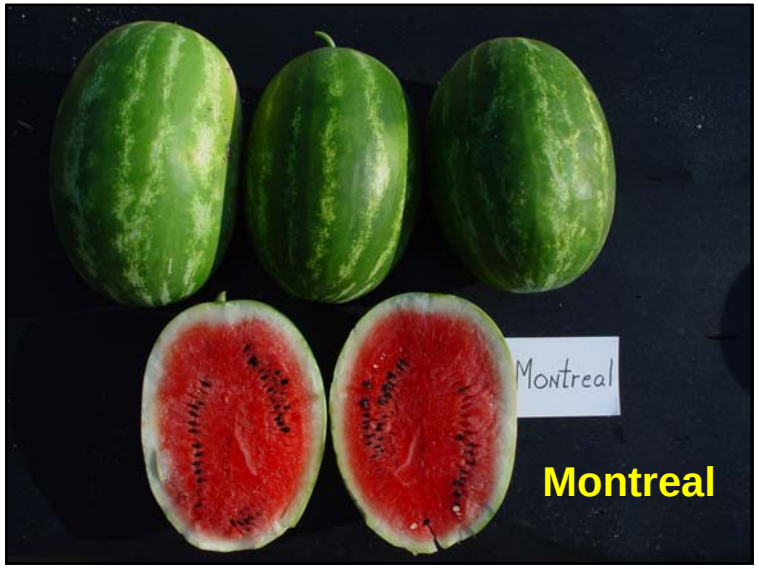

Figure 3. Diploid Cultivar Pictures

Table 32. 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., 2012.**

		Fruit size category (lb)					Total	Avg. Wt.
Cultivar	Rank[1]	<8	8-15.9	16-23.9	24 +	Total	Mkt[2]	(lb)[3]
Catira	2	0	249	828	218	1394	1394	19.0
Crimson Sweet	5	0	305	741	261	1307	1307	19.6
Montreal	3	0	349	697	305	1350	1350	19.3
Sentinel	6	0	261	349	523	1133	1133	22.0
Summer Flavor 800	7	0	349	523	174	1045	1045	19.1
SVR 8039-1548	3	0	218	566	566	1350	1350	22.4
WT 2527	1	0	305	566	610	1481	1481	21.8
Average	- -	0	291	610	380	1294	1294	20
LSD(0.05)	**- -**	**0**	**253**	**329**	**329**	**494**	**494**	**3.1**

Table 33. 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., 2012.**

		Fruit size category (lb)					Total	Avg. Wt.
Cultivar	Rank[1]	<8	8-15.9	16-23.9	24 +	Total	Mkt[2]	(lb)[3]
Catira	2	0	479	392	261	1133	1133	18.0
Crimson Sweet	4	0	261	305	349	915	915	20.7
Montreal	3	0	348	436	218	1002	1002	17.8
Sentinel	4	0	174	261	479	915	915	22.2
Summer Flavor 800	1	0	566	523	87	1176	1176	16.4
SVR 8039-1548	6	0	348	392	87	828	828	16.9
WT 2527	6	0	218	305	305	828	828	19.5
Average	- -	0	342	373	255	971	971	19
LSD(0.05)	**- -**	**0**	**204**	**385**	**415**	**481**	**481**	**5.2**

[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 34. Diploid watermelon hybrid cultivar trial. Percentage fruit harvested by **number** within each size category for the **first harvest**. **Clayton, N.C., 2012**

	Percentages[1] (%) by Fruit Size Category (lb)			
Cultivar	**<8**	**8-15.9**	**16-23.9**	**24+**
Catira	0	18	59	16
Crimson Sweet	0	23	57	20
Montreal	0	26	52	23
Sentinel	0	23	31	46
Summer Flavor 800	0	33	50	17
SVR 8039-1548	0	16	42	42
WT 2527	0	21	38	41
Average	0	23	47	29

Table 35. Diploid watermelon hybrid cultivar trial. Percentage fruit harvested by **number** within each size category for the **second harvest**. **Clayton, N.C., 2012.**

	Percentages[1] (%) by Fruit Size Category (lb)			
Cultivar	**<8**	**8-15.9**	**16-23.9**	**24+**
Catira	0	42	35	23
Crimson Sweet	0	29	33	38
Montreal	0	35	43	22
Sentinel	0	19	29	52
Summer Flavor 800	0	48	44	7
SVR 8039-1548	0	42	47	11
WT 2527	0	26	37	37
Average	0	34	38	27

[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 36. Diploid watermelon hybrid cultivar trial**. Number** of fruit harvested during the **third harvest** by various weight classes (per acre) including average fruit size. **Clayton, N.C., 2012.**

		Fruit size category (lb)					Total	Avg. Wt.
Cultivar	Rank[1]	<8	8-15.9	16-23.9	24 +	Total	Mkt[2]	(lb)[3]
Catira	5	0	261	131	0	392	392	12.3
Crimson Sweet	3	0	305	174	0	479	479	13.2
Montreal	7	0	261	87	0	349	349	11.7
Sentinel	2	0	305	174	44	523	523	14.0
Summer Flavor 800	1	0	566	87	44	697	697	13.8
SVR 8039-1548	3	0	392	87	0	479	479	11.6
WT 2527	5	0	218	174	0	392	392	14.1
Average	- -	0	330	131	12	473	473	13.0
LSD(0.05)	**- -**	**0**	**270**	**291**	**71**	**500**	**500**	**4.5**

Table 37. Diploid watermelon hybrid cultivar trial. Cumulative **fruit number** by various weight classes (per acre) and fruit number per plant. **Clayton, N.C.**, **2012.**

		Fruit size category (lb)					Total	Fruit /
Cultivar	Rank[1]	<8	8-15.9	16-23.9	24+	Total	Mkt[2]	Plant
Catira	1	0	1089	1350	479	2919	2919	1.7
Crimson Sweet	3	0	871	1220	610	2701	2701	1.6
Montreal	3	0	958	1220	523	2701	2701	1.6
Sentinel	7	0	741	784	1045	2570	2570	1.5
Summer Flavor 800	1	0	1481	1133	305	2919	2919	1.7
SVR 8039-1548	6	0	958	1045	653	2657	2657	1.5
WT 2527	3	0	741	1045	915	2701	2701	1.6
Average	- -	0	977	1114	647	2738	2738	1.6
LSD (0.05)	**- -**	**0**	**452**	**472**	**504**	**594**	**594**	**0.3**

[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 38. Diploid watermelon hybrid cultivar trial. Percentage fruit harvested by **number** within each size category for **third harvest; Clayton, N.C., 2012.**

	Percentages[1] (%) by Fruit Size Category (lb)			
Cultivar	**<8**	**8-15.9**	**16-23.9**	**24+**
Catira	0	67	33	0
Crimson Sweet	0	64	36	0
Montreal	0	75	25	0
Sentinel	0	58	33	8
Summer Flavor 800	0	81	12	6
SVR 8039-1548	0	82	18	0
WT 2527	0	56	44	0
Average	0	71	26	2

Table 39. Diploid watermelon hybrid cultivar trial. Percentage of fruit harvested by **number** within each size category for cumulative harvests **; Clayton, N.C., 2012.**

	Percentages[1] (%) by Fruit Size Category (lb)			
Cultivar	**<8**	**8-15.9**	**16-23.9**	**24+**
Catira	0	38	46	15
Crimson Sweet	0	32	46	22
Montreal	0	35	47	18
Sentinel	0	29	31	41
Summer Flavor 800	0	51	39	10
SVR 8039-1548	0	35	40	25
WT 2527	0	27	39	34
Average	0	35	41	24
LSD	**0**	**13**	**19**	**17**

[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. Percentage harvested by harvest in **total** and **total marketable** number categories. **Clayton, NC, 2012.**

	Percentages[1] (%) by Harvest for Total and Total Marketable fruit					
	1st Harvest		2nd Harvest		3rd Harvest	
Cultivar	Total	Total Mkt.	Total	Total Mkt.	Total	Total Mkt.
Catira	48	48	39	39	13	13
Crimson Sweet	48	48	34	34	18	18
Montreal	50	50	37	37	13	13
Sentinel	44	44	36	36	20	20
Summer Flavor 800	36	36	40	40	24	24
SVR 8039-1548	51	51	31	31	18	18
WT 2527	55	55	31	31	15	15
Average	47	47	36	36	18	18

[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 41. 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., 2012.**

		Fruit size category (lb)					Total	Avg. Wt.
Cultivar	Rank[1]	≤8	8-15.9	16-23.9	24 +	Total	Mkt[2]	(lb)[3]
Catira	2	0	128	268	142	538	538	18.2
Crimson Sweet	4	0	99	248	168	515	515	19.0
Montreal	5	0	112	235	148	495	495	18.2
Sentinel	3	0	78	167	287	532	532	20.7
Summer Flavor 800	7	0	182	224	89	495	495	16.9
SVR 8039-1548	5	0	109	207	188	504	504	19.0
WT 2527	1	0	80	215	258	552	552	20.5
Average	- -	0	113	223	183	519	519	19
LSD(0.05)	**- -**	**0**	**60**	**93**	**145**	**142**	**142**	**2.3**

[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 42. Diploid watermelon hybrid cultivar trial. Percentage **harvested by weight** over **three harvests** within each fruit size category. **Clayton, NC., 2012.**

	Percentages[1] (%) by Fruit Size Category (lb)			
Cultivar	**<8**	**8-15.9**	**16-23.9**	**24+**
Catira	0	26	51	23
Crimson Sweet	0	19	49	32
Montreal	0	23	51	26
Sentinel	0	15	32	54
Summer Flavor 800	0	38	45	16
SVR 8039-1548	0	21	42	37
WT 2527	0	14	39	46
Average	0	22	44	33
LSD (0.05)	**0**	**12**	**23**	**24**

[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 43. Diploid watermelon hybrid cultivar trial. Interior fruit quality. **Clayton, NC, 2012.**[1]

Cultivar	SS[2]	Color[3]	Seed Size[4]	Flesh Pressure [5]	LD[6]	Rind[7]	Hollow Heart Ratings [8]				
							HH0	HH1	HH2	HH3	HH4
Catira	12.3	3.9	2.7	2.5	1.3	14.8	85	15	0	0	0
Crimson Sweet	11.5	3.1	3.0	2.5	1.1	15.4	85	10	5	0	0
Montreal	11.7	4.1	3.6	2.6	1.4	15.1	100	0	0	0	0
Sentinel	12.9	4.3	3.1	3.0	1.4	14.7	90	0	5	5	0
Summer Flavor 800	11.9	4.1	3.8	2.6	1.6	16.3	85	15	0	0	0
SVR 8039-1548	12.1	4.3	3.6	3.0	1.4	13.7	90	5	5	0	0
WT 2527	11.6	4.1	2.6	2.6	1.7	15.3	90	0	10	0	0
Average	12.0	4.0	3.2	2.7	1.4	15.0	89	6	4	1	0
LSD(0.05)	**0.5**	**0.3**	**0.2**	**0.3**	**0.1**	**1.9**	**21**	**14**	**12**	**6**	**0**

[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).