

2009 Watermelon Cultivar Trials

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2009
North Carolina
Watermelon
Cultivar Trials

Hort. Series # 190

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General Cultural Practices

The watermelon trials were grown on black plastic mulch and fertigated with drip irrigation. Pesticides used on all plots were chemicals labeled for that crop, (2009 North Carolina Agricultural Chemicals Manual, (<http://ipm.ncsu.edu/Agchem/agchem.html>)).

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Disclaimer

This publication presents data from the cultivar evaluation trials conducted during 2009. 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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Diploid, Triploid, and Mini Triploid Watermelon Cultural Practices for 2009 Cultivar Trials, Central Crops Research Station, Clayton, NC

Introduction

Watermelon is an important crop grown in North Carolina as the state was ranked eighth in production among U.S. states nationally in 2008. Approximately 6,700 acres valued at nearly \$12.1 million were produced in 2008. 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 have evaluated mini triploid watermelon types since 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 LE 1803 transplant trays (Landmark Plastics Corp.; Akron, OH). Seeds of triploid, diploid, and triploid mini cultigen were sown on 9 April, 2009. 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. Diploids and triploid mini watermelons were established in the field on 6 May 2009 and the standard triploids were established on 12 May 2009. Fertilizer, 30 lb/acre N and 80 lb/acre K₂O, was incorporated into the bed on 8 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) on 9 April. Fumigant (Telone C-17) was injected on 9 April at 9 gallons/acre when the plastic was laid. Herbicides, Curbit at 4 pints/acre, Gramaxone at 3 pint/acre, and Alanap L at 6 quarts/acre were applied between the plastic beds for weed control on 1 May. Sandia at 0.75 oz/acre was applied to row middles on 20 May for nutsedge control. Poast at 2 oz/gal was applied between the plastic beds for weed control on 23 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 15 feet alleys between plots. Plot size for the mini triploid watermelons was one row, 10 plants per plot, 10 feet long with 10 feet alleys between plots. At time of transplant, a starter solution was applied using 20-20-20 (0.5 lb/50 gallons water) and 0.5 lb Diazinon 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. SP-4 pollinizer plants were interplanted in 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 102 lb/acre N and 204 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 110, 0, and 240 lb/acre of N, P₂O₅, and K₂O, respectively. Insecticides were applied every week as a preventative measure beginning 20 May and on the following dates (27 May; 3, 10, 18, 24, and 30 June; 8, 15, 23, and 31 July; and 3 and 6 August). The following products were alternated during consecutive spray applications to avoid insect resistance: Asana XL, Perm Up, Sniper, Thiomax, Kelthane, and Acromite. Fungicides were similarly applied throughout the growing season at weekly intervals. The fungicide program that was implemented consisted of the following fungicide products: Kocide, Previcur Flex, Gavel, Cabrio, and Bravo Weather Stik; and applied on the following dates: 24, 30, and 31 July; 6 August.

There were five diploid harvests, five triploid harvests, and five mini triploid harvests. The first harvest for the diploid test was 14 July, and subsequent harvests were 23 and 29 July; 19 August; and 2 September. The first harvest date for the triploid test was 22 July; subsequent harvests were 28 July, 5, and 19 August, and 2 September. The first harvest for the mini triploid trial was 7 July, and subsequent harvests were 14, 23, and 29 July, and 5 August. Each fruit was harvested when ripe, weighed and categorized statistically by size category. For the diploid watermelon test, fruits were placed in the following categories; < 8 lb, 8-15.9 lb, 16-23.9 lb, and 24 + lb. Fruit less than 8 lb were considered not marketable while fruit greater than 8 lbs were considered marketable. For the triploid trial, fruits were placed in the following weight 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 first or second harvest.

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**Table 1. Diploid Red-Flesh Watermelon Cultivar Descriptions and Seed Sources;
Clayton, N.C., 2009.**

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
1	Crimson Sweet	Clifton Seed	Distinct, medium width, dark green stripes on light green background; uniform shape; mainly round; medium to large size; Excellent flavor
2	Diablo	Willhite	Indistinct, very wide, dark green stripes on light green background; elongated; uniform fruit shape and size; large fruit; a few fruit were blocky and a few fruit had flattened blossom ends
3	Olé	Willhite	Indistinct, very wide, dark green stripes on light green background; elongated fruit; slight bottlenecking in some fruit at stem end; uniform fruit size; large fruit
4	Summer Flavor 800	Abbott & Cobb	Indistinct, very wide, medium to dark green stripes on light green background; uniformly blocky fruit; generally uniform medium size with a few large fruit; good eating quality and flavor
5	WX 0368	Willhite	Indistinct, very wide, medium to dark green stripes on light green background; variable shape, blocky and elongated; variable size, small to large; large percentage of fruit were misshapen by either having bottlenecking occurrence or flattened blossom ends
6	XWD 4046	Sakata	Indistinct, very wide, dark green stripes on light green background; generally consistent uniform shape and size; blocky and medium size; firm flesh

Figure 1: 2009 Diploid Cultivars

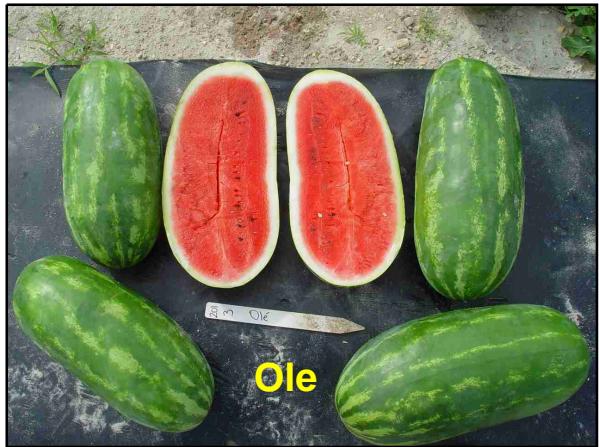
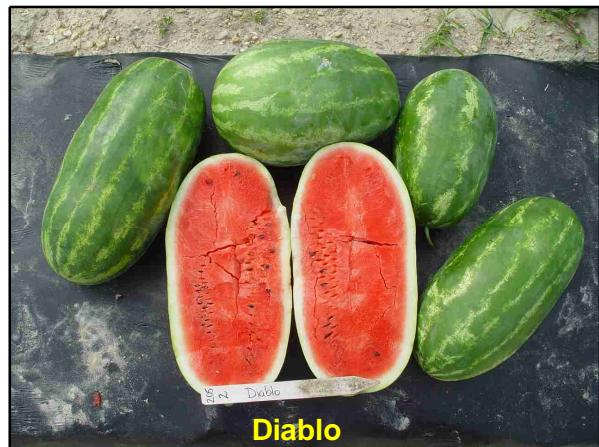


Table 2. Diploid Red-Flesh watermelon hybrid cultivar trial. Number of fruit harvested during **first and second harvests** by various weight classes (per acre) plus average fruit size. Clayton, N.C., 2009.

Cultivar	Rank¹	Fruit size category (lb)				Total	Avg. Wt. (lb)	
		<8	8-15.9	16-23.9	24 +			
Crimson Sweet	5	0	131	828	653	1612	1612	22.8
Diablo	2	0	261	784	871	1917	1917	23.2
Ole	3	0	174	828	871	1873	1873	23.8
Summer Flavor 800	1	0	392	1263	436	2091	2091	20.0
WX 0368	6	131	523	697	305	1655	1525	18.3
XWD 4046	4	87	87	1438	261	1873	1786	19.7
Average	--	36	261	973	566	1837	1800	21.3
LSD(0.05)	--	117	258	603	388	767	800	2.7

¹ Ranked according to total marketable number.

² Includes fruit 8 - 24+ pounds.

Table 3. Diploid Red-Flesh watermelon hybrid cultivar trial. Percentage fruit harvested by number within each size category for **first and second harvests**.
Clayton, N.C., 2009

<u>Cultivar</u>	<u>Percentages¹ (%) by Fruit Size Category (lb)</u>			
	<u><8</u>	<u>8-15.9</u>	<u>16-23.9</u>	<u>24+</u>
Crimson Sweet	0	6	62	32
Diablo	0	14	41	45
Ole	0	8	44	47
Summer Flavor 800	0	18	64	18
WX 0368	7	31	46	16
XWD 4046	6	5	74	15
Average	2	14	55	29
LSD (0.05)	7	14	2	21

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 4. Diploid Red-Flesh watermelon hybrid cultivar trial. Number of fruit harvested during **third and fourth harvests** by various weight classes (per acre) including average fruit size. Clayton, N.C., 2009.

<u>Cultivar</u>	<u>Rank¹</u>	<u>Fruit size category (lb)</u>				<u>Total</u>	<u>Avg. Wt.</u> <u>(lb)</u>
		<u><8</u>	<u>8-15.9</u>	<u>16-23.9</u>	<u>24 +</u>		
Crimson Sweet	2	87	1133	697	131	2047	1960 16.0
Diablo	4	0	610	871	261	1742	1742 18.3
Ole	6	0	218	610	436	1263	1263 21.6
Summer Flavor 800	1	44	697	1133	349	2222	2178 18.2
WX 0368	3	44	566	958	392	1960	1917 18.7
XWD 4046	5	44	610	784	218	1655	1612 18.7
Average	--	36	639	842	298	1815	1779 18.6
LSD(0.05)	--	82	550	563	370	650	638 2.9

¹ Ranked according to total marketable number.

² Includes fruit 8 - 24+ pounds.

Table 5. Diploid Red-Flesh watermelon hybrid cultivar trial. Percentage fruit harvested by **number** within each size category for **harvests 3 and 4**.

Clayton, N.C., 2009

<u>Cultivar</u>	Percentages¹ (%) by Fruit Size Category (lb)			
	<u><8</u>	<u>8-15.9</u>	<u>16-23.9</u>	<u>24+</u>
Crimson Sweet	4	54	35	7
Diablo	0	37	49	15
Ole	0	16	47	36
Summer Flavor 800	1	31	50	17
WX 0368	2	29	50	19
XWD 4046	3	34	46	17
Average	2	34	46	19
LSD (0.05)	4	21	22	21

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 6. Diploid Red-Flesh watermelon hybrid cultivar trial. Number of fruit harvested during **fifth harvest** by various weight classes (per acre) including average fruit size. Clayton, N.C., 2009.

Cultivar	Rank¹	Fruit size category (lb)				Total	Avg. Wt. (lb)	
		<8	8-15.9	16-23.9	24 +			
Crimson Sweet	5	0	784	218	0	1002	1002	13.0
Diablo	2	0	523	697	44	1263	1263	15.8
Ole	2	87	523	610	131	1350	1263	17.4
Summer Flavor 800	4	0	566	436	44	1045	1045	16.1
WX 0368	6	44	174	218	174	610	566	18.8
XWD 4046	1	44	697	697	0	1438	1394	16.1
Average	--	29	545	479	65	1118	1089	16.2
LSD(0.05)	--	133	546	359	172	796	718	2.1

¹ Ranked according to total marketable number.

² Includes fruit 8 - 24+ pounds.

Table 7. Diploid Red-Flesh watermelon hybrid cultivar trial. Percentage fruit harvested by **number** within each size category for **harvest 5. Clayton, N.C., 2009.**

Cultivar	Percentages¹ (%) by Fruit Size Category (lb)			
	<8	8-15.9	16-23.9	24+
Crimson Sweet	0	76	24	0
Diablo	0	43	54	2
Ole	4	37	48	11
Summer Flavor 800	0	52	45	3
WX 0368	4	27	44	25
XWD 4046	2	45	54	0
Average	2	47	45	7
LSD (0.05)	8	26	37	19

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 8. Diploid Red-Flesh watermelon hybrid cultivar trial. Cumulative **fruit number** over five harvests by various weight classes (per acre). **Clayton, N.C., 2009.**

Cultivar	Rank¹	Fruit size category (lb)				Total	Total Mkt²
		<8	8-15.9	16-23.9	24+		
Crimson Sweet	4	87	2047	1742	784	4661	4574
Diablo	2	0	1394	2352	1176	4922	4922
Ole	5	87	915	2047	1438	4487	4400
Summer Flavor 800	1	44	1655	2831	828	5358	5314
WX 0368	6	218	1263	1873	871	4225	4008
XWD 4046	3	174	1394	2919	476	4966	4792
Average	--	102	1445	2294	929	4770	4668
LSD (0.05)	--	188	647	770	590	874	830

¹ Ranked according to total marketable number.

² Includes fruit 8 - 24+ pounds.

Table 9. Diploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by **number** over five harvests within each fruit size category.
Clayton, NC., 2009.

<u>Cultivar</u>	Percentages ¹ (%) by Fruit Size Category (lb)			
	<u><8</u>	<u>8-15.9</u>	<u>16-23.9</u>	<u>24+</u>
Crimson Sweet	2	44	39	16
Diablo	0	29	48	23
Ole	2	20	46	33
Summer Flavor 800	1	31	53	16
WX 0368	5	30	45	19
XWD 4046	4	28	59	9
Average	2	30	48	19
LSD (0.05)	4	12	13	14

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

Table 10. Diploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by harvest in **total** and **total marketable** number categories. **Clayton, NC, 2009.**

Cultivar	Percentages¹ (%) by Harvest for Total and Total Marketable fruit					
	Early (1-2)		Mid (3-4)		Harvest 5	
	Total	Mkt.	Total	Mkt.	Total	Mkt.
Crimson Sweet	35	35	44	43	21	22
Diablo	39	39	35	35	26	26
Ole	42	43	28	29	30	29
Summer Flavor 800	39	39	41	41	20	20
WX 0368	39	38	46	48	14	14
XWD 4046	38	37	33	34	29	29
Average	39	39	38	38	23	23

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 11. Diploid Red-Flesh watermelon hybrid cultivar trial. Cumulative **weight** (x 100) of fruit harvested over five harvests by various weight classes (per acre) plus average fruit size. **Clayton, N.C., 2009.**

Cultivar	Rank¹	Fruit size category (lb)					Total	Avg. Wt. (lb)
		<8	8-15.9	16-23.9	24 +	Total		
Crimson Sweet	5	7	261	340	233	840	834	17.9
Diablo	2	0	173	462	334	968	968	19.6
Ole	3	6	128	408	400	943	936	21.2
Summer Flavor 800	1	3	224	548	213	989	986	18.5
WX 0368	6	14	167	363	244	788	774	18.6
XWD 4046	4	12	179	576	131	898	886	18.1
Average	--	7	449	259	259	904	897	19
LSD(0.05)	--	14	83	147	169	176	176	2.2

¹ Ranked according to total marketable weight.

² Includes fruit 8 - 23.9 lb.

Table 12. Diploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by **weight** over **five harvests** within each fruit size category.

Clayton, NC., 2009.

Cultivar	Percentages¹ (%) by Fruit Size Category (lb)			
	<8	8-15.9	16-23.9	24+
Crimson Sweet	1	31	44	24
Diablo	0	18	48	33
Ole	1	13	43	43
Summer Flavor 800	0	23	56	21
WX 0368	2	22	48	28
XWD 4046	1	20	64	14
Average	1	21	51	27
LSD (0.05)	2	11	15	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 13. Diploid Red-Flesh watermelon hybrid cultivar trial. Interior fruit quality. Clayton, NC, 2009.¹

Cultivar	Seed						Flesh					Hollow Heart Ratings⁸				
	SS²	Color³	Size⁴	Pressure⁵	LD⁶	Rind⁷	HH0	HH1	HH2	HH3	HH4					
Crimson Sweet	11.8	3.1	2.8	2.5	1.1	1.9	90	5	5	0	0					
Diablo	12.9	3.9	3.3	2.4	2.1	1.6	45	25	25	5	0					
Ole	12.4	4.0	3.2	2.7	2.0	1.4	35	35	25	5	0					
Summer Flavor 800	12.2	3.8	3.2	2.6	1.7	1.8	45	45	10	0	0					
WX 0368	12.1	3.9	3.4	2.7	2.2	2.0	75	25	0	0	0					
XWD 4046	12.2	4.2	3.1	2.7	1.7	1.7	80	20	0	0	0					
Average	12.3	3.8	3.2	2.6	1.8	1.7	62	26	11	2	0					
LSD(0.05)	0.6	0.5	0.6	0.3	0.2	0.2	43	41	24	9	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).

Table 14. Triploid Red-Flesh Watermelon Seed Sources and Descriptions; 2009.

Entry No.	Cultigen	Company	Description
1	9135	Zeraim Gedera	Indistinct, medium width, dark green stripes on light green background; slightly oval to short blocky shape; fairly uniform shape; somewhat variable fruit size (small to large)
2	9139	Zeraim Gedera	Indistinct, medium width, dark green stripes on light green background; mainly oval, uniformly shaped fruit; standard, uniform marketable fruit size
3	ACX 4674	Abbott & Cobb	Indistinct, medium to wide, dark green stripes on light green background; uniformly short, blocky fruit; generally larger size fruit
4	Crunchy Red	Harris-Moran	Indistinct, medium dark green stripes on light green background; blocky fruit with uniform shape; standard to large size fruit
5	Cut Master ESL	Willhite	Appears as solid, dark green but has medium green flecks sporadically on fruit; short blocky to oval; size ranges from small to standard (medium) size; very thick rind
6	Fashion	Nunhems	Appears as solid, dark green but has distinct, narrow, very dark green stripes on a dark green background; uniform, round fruit; size ranges from small to standard (medium) size
7	Firm 'N Red	Abbott & Cobb	Indistinct, medium to wide, medium to dark green stripes on light green background; short blocky to mainly blocky; mainly medium to large size fruit
8	Fresh Cut ESL	Willhite	Appears as solid, dark green but has medium green flecks sporadically on fruit; uniformly, oval and short blocky; medium to large sized fruit; uniform fruit size; thick rind
9	Krimson Krunch	D. Palmer	Distinct, narrow, medium green stripes on a very light green background; uniformly round; generally small to medium size fruit
10	Liberty	Nunhems	Indistinct, medium width, dark green stripes on light green background; oval to short blocky; medium and large sized fruit
11	Melody	Syngenta	Indistinct, medium width, dark green stripes on a light to medium green background; generally round to short oval; generally medium sized fruit
12	Nomad	Harris Moran	Indistinct, medium width, dark green stripes on a light green background; uniformly oval fruit; size is mainly medium size
13	NUN 6032 (Declaration)	Nunhems	Indistinct, medium width, dark green stripes on light and medium green background; very uniform short blocky shape and size, (cookie cutter like)
14	Obsession	Syngenta	Distinct, narrow, very dark green stripes on a dark green background; oval to short blocky; shape generally uniform; uniform medium size
15	Orange Crisp	US Seedless	Distinct, narrow, dark green stripes on a light green background; uniform round fruit; small to medium size fruit
16	Pasha Red	D. Palmer	Indistinct, medium to dark green stripes on a light green background; round to oval shape; small to medium size
17	Revolution	Nunhems	Indistinct, wide, dark green stripes on a light green background; uniformly elongated; uniformly large sized fruit
18	RWT 8216	Syngenta	Appears as solid dark green but has distinct, narrow to medium width very dark green stripes on a dark green background; uniformly round; size varies from small to large; nice rind delineation

Table 14. Cont.

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
19	RWT 8228	Syngenta	Mostly distinct, medium width, dark green stripes on a light green background; stripe is shadowed by medium green shoulder; mainly oval; mainly medium to large sized fruit; good clear rind-flesh delineation
20	RWT 8229	Syngenta	Indistinct, distinct medium width, dark green stripes on a light green background; most fruit slightly oval; medium to large size
21	RWT 8230	Syngenta	Indistinct, wide, dark green stripes on a light green background; uniformly slightly oval; mainly large fruit size; intense red flesh; good rind-flesh delineation very firm flesh
22	Summer King	Syngenta	Mainly indistinct, medium width, dark green stripes on a light green background; some oval, but mainly short blocky; generally large size fruit
23	Super Seedless 7167	Abbott & Cobb	Indistinct, medium width, dark green stripes on a light green background; uniformly oval to short blocky; mainly large fruit with a few small fruit
24	Super Seedless 7187	Abbott & Cobb	Indistinct, medium width, dark green stripes on a light green background; short, blocky uniform shape; mostly large fruit
25	Sweet Delight	Syngenta	Indistinct, medium width, dark green stripes on a light green background; oval to short blocky; size ranged from medium to large size fruit
26	SWT 6832	Sakata	Distinct, narrow, dark green stripes on light green background; round to short oval, uniform shape; size ranges fro small to medium
27	Tri-X-212	Syngenta	Indistinct, medium width, dark green stripes on light green background; mainly oval; size mainly small to medium
28	Tri-X-313	Syngenta	Indistinct, medium width, dark green stripes on light green background; oval to short blocky, consistent shape; size ranges mainly from medium to large fruit
29	Tri-X-Palomar	Syngenta	Distinct, narrow, dark green stripes on a medium to dark green background; round, uniform shape; variable size which ranged from small to large
30	Troubadour	Harris Moran	Mainly distinct, medium to wide, dark green stripes on a medium green background; oval to short blocky, consistent shape; mainly large fruit
31	Vagabond	Harris-Moran	Indistinct and distinct, medium width, dark green stripes on a medium green background; uniformly oval; medium to large size fruits
32	WX 4868	Willhite	Indistinct, narrow to medium width, dark green stripes on light green background; uniformly round to short oval; small to large size fruit
33	Yellow Bird	D. Palmer	Distinct, narrow, dark green stripes on medium green background; uniformly round fruit; size ranges from small to large; excellent canary yellow flesh color

Figure 2. Triploid Cultivar Pictures

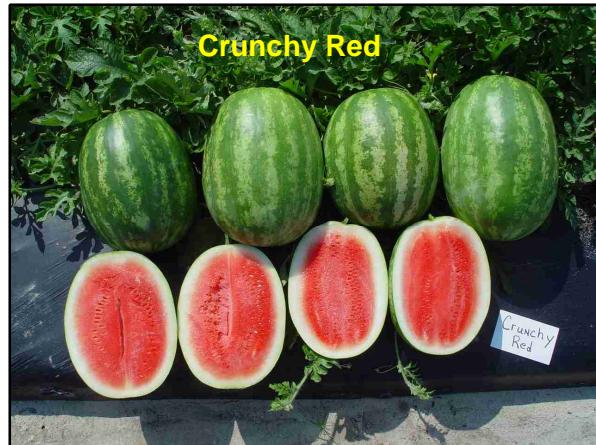


Figure 2. Triploid Cultivar Pictures

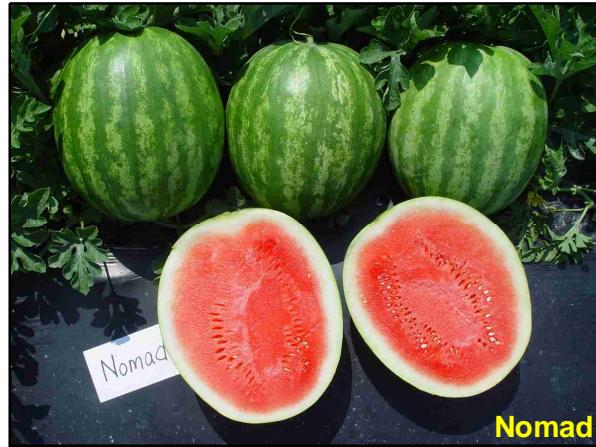


Figure 2. Triploid Cultivar Pictures

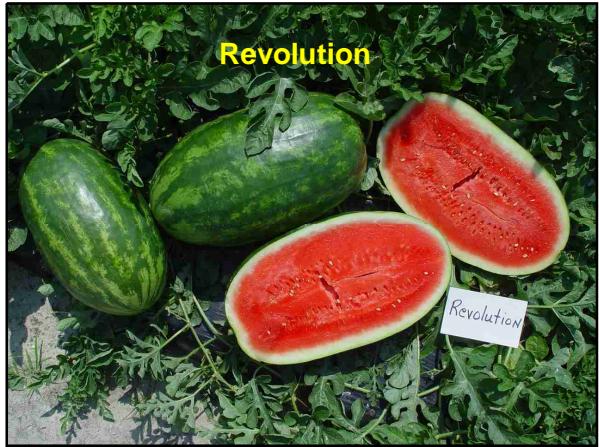


Figure 2. Triploid Cultivar Pictures



Figure 2. Triploid Cultivar Pictures



Figure 2. Triploid Cultivar Pictures

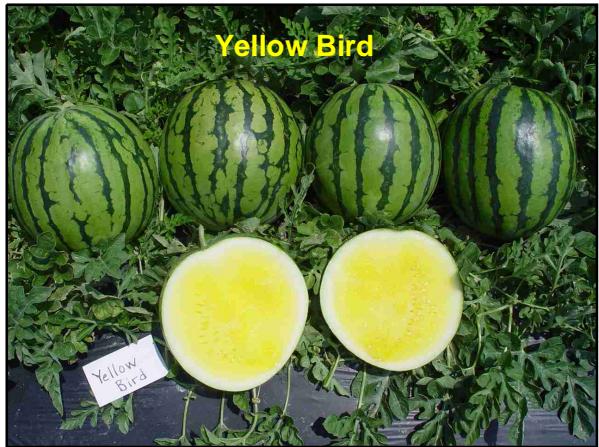


Table 15. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for early season¹ harvests by various weight classes, (per acre), including average fruit size². Clayton, N.C. 2009.

Cultivar	Seed Company	Rank³	Fruit size category (lb)						Total No./ Acre	Mkt No./ Acre⁴	Avg wt.
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+			
9135	Zeraim Gedera	30	0	87	174	784	131	174	1350	1263	14.1
9139	Zeraim Gedera	33	44	131	131	566	0	44	915	741	12.7
ACX 4674	Abbott & Cobb	3	0	87	479	958	131	261	1917	1830	13.4
Crunchy Red	Harris-Moran	21	87	261	392	784	174	131	1830	1481	13.0
Cut Master ESL	Willhite	12	131	87	349	784	218	392	1960	1742	14.0
Fashion	Nunhems	29	87	305	610	610	87	0	1699	1307	11.5
Firm 'N Red	Abbott & Cobb	8	0	87	218	1045	174	349	1873	1786	14.6
Fresh Cut ESL	Willhite	30	0	261	305	479	261	218	1525	1263	13.9
Krimson Krunch	D. Palmer	16	131	218	523	871	174	0	1917	1568	12.2
Liberty	Nunhems	12	131	174	261	697	479	305	2047	1742	14.8
Melody	Syngenta	25	261	349	349	697	131	174	1960	1350	12.6
Nomad	Harris-Moran	14	44	87	305	653	436	261	1786	1655	14.5
NUN 6032	Nunhems	3	44	44	261	1045	261	261	1917	1830	14.5
Obsession	Syngenta	8	87	87	218	1176	261	131	1960	1786	13.5
Orange Crisp	US Seedless	25	87	0	87	566	392	305	1438	1350	15.7
Pasha Red	D. Palmer	21	218	305	349	828	261	44	2004	1481	12.3
Revolution	Nunhems	32	44	44	44	479	174	349	1133	1045	16.2
RWT 8216	Syngenta	8	0	0	305	828	349	305	1786	1786	15.0
RWT 8228	Syngenta	21	44	0	174	653	479	174	1525	1481	14.8
RWT 8229	Syngenta	25	0	87	174	958	218	0	1438	1350	13.7
RWT 8230	Syngenta	16	0	0	174	523	349	523	1568	1568	16.6
Summer King	Syngenta	3	44	261	523	1176	87	44	2134	1830	12.7
Super Seedless 7167	Abbott & Cobb	21	44	261	349	828	44	261	1786	1481	13.6
Super Seedless 7187	Abbott & Cobb	1	0	87	218	915	479	261	1960	1873	14.8
Sweet Delight	Syngenta	8	87	392	349	784	261	392	2265	1786	13.4
SWT 6832	Sakata	18	174	305	479	871	131	44	2004	1525	12.1
Tri-X-212	Syngenta	1	87	218	523	1002	174	174	2178	1873	13.2
Tri-X-313	Syngenta	3	261	87	261	1002	436	131	2178	1830	13.4
Tri-X- Palomar	Syngenta	14	87	87	261	1045	349	0	1830	1655	13.8
Troubadour	Harris-Moran	18	87	174	741	566	218	0	1786	1525	11.9
Vagabond	Harris-Moran	25	44	218	349	741	131	131	1612	1350	13.4
WX 4868	Willhite	18	131	87	218	653	436	218	1742	1525	14.4
Yellow Bird	D. Palmer	3	0	174	479	1002	218	131	2004	1830	13.7
Average		--	75	153	322	805	246	187	1789	1560	13.8
LSD (0.05)		--	157	240	333	462	285	286	713	672	1.6

¹ Early season harvests include harvests 1 and 2.

² Yields are calculated using 100 percent seedless watermelon population. SP-4 plants were interplanted after the triploid plants, 1, 4, and 7 within the plot.

³ Ranked according to total marketable weight.

⁴ Includes fruit 10 - 18 + pounds.

Table 16. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for early seson harvests. Clayton, NC, 2009.

Cultivar	Percentages¹ (%) by Fruit Size Category					
	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
9135	0	6	13	58	10	13
9139	5	14	14	62	0	5
ACX 4674	0	5	25	50	7	14
Crunchy Red	5	14	21	43	10	7
Cut Master ESL	7	4	18	40	11	20
Fashion	5	18	36	36	5	0
Firm 'N Red	0	5	12	56	9	19
Fresh Cut ESL	0	17	20	31	17	14
Krimson Krunch	7	11	27	45	9	0
Liberty	6	9	13	34	23	15
Melody	13	18	18	36	7	9
Nomad	2	5	17	37	24	15
NUN 6032	2	2	14	55	14	14
Obsession	4	4	11	60	13	7
Orange Crisp	6	0	6	39	27	21
Pasha Red	11	15	17	41	13	2
Revolution	4	4	4	42	15	31
RWT 8216	0	0	17	46	20	17
RWT 8228	3	0	11	43	31	11
RWT 8229	0	6	12	67	15	0
RWT 8230	0	0	11	33	22	33
Summer King	2	12	24	55	4	2
Super Seedless 7167	2	15	20	46	2	15
Super Seedless 7187	0	4	11	47	24	13
Sweet Delight	4	17	15	35	12	17
SWT 6832	9	15	24	43	7	2
Tri-X-212	4	10	24	46	8	8
Tri-X-313	12	4	12	46	20	6
Tri-X- Palomar	5	5	14	57	19	0
Troubadour	5	10	41	32	12	0
Vagabond	3	14	22	46	8	8
WX 4868	8	5	13	38	25	13
Yellow Bird	0	9	24	50	11	7
Average	4	8	18	45	14	11

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

Table 17. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for mid season¹ harvests by various weight classes, (per acre), including average fruit size². Clayton, N.C. 2009.

Cultivar	Seed Company	Rank³	Fruit size category (lb)							Total No./ Acre	Mkt No./ Acre⁴	Avg wt.
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+				
9135	Zeraim Gedera	8	131	523	479	784	479	261	2657	2004	13.4	
9139	Zeraim Gedera	17	0	174	305	1133	218	131	1960	1786	13.8	
ACX 4674	Abbott & Cobb	1	349	523	1307	1045	131	131	3485	2614	11.8	
Crunchy Red	Harris-Moran	4	261	392	784	1133	305	44	2919	2265	12.4	
Cut Master ESL	Willhite	19	174	131	479	958	174	44	1960	1655	12.5	
Fashion	Nunhems	31	1002	1089	871	523	0	0	3485	1394	9.5	
Firm 'N Red	Abbott & Cobb	12	131	131	436	1133	174	131	2134	1873	13.2	
Fresh Cut ESL	Willhite	23	131	305	436	741	218	174	2004	1568	12.9	
Krimson Krunch	D. Palmer	29	566	741	436	915	0	87	2744	1438	10.9	
Liberty	Nunhems	10	305	436	305	1089	174	392	2701	1960	12.9	
Melody	Syngenta	32	436	436	479	566	174	44	2134	1263	11.3	
Nomad	Harris-Moran	8	436	261	653	1089	87	174	2701	2004	11.9	
NUN 6032	Nunhems	13	305	305	523	1045	174	87	2439	1830	12.4	
Obsession	Syngenta	32	0	87	218	915	131	0	1350	1263	13.4	
Orange Crisp	US Seedless	7	479	305	392	958	392	349	2875	2091	12.7	
Pasha Red	D. Palmer	18	479	610	828	784	87	0	2788	1699	11.1	
Revolution	Nunhems	13	87	131	305	1133	174	218	2047	1830	13.3	
RWT 8216	Syngenta	10	218	392	566	915	218	261	2570	1960	12.8	
RWT 8228	Syngenta	19	87	218	261	871	174	349	1960	1655	13.9	
RWT 8229	Syngenta	2	174	44	915	1133	305	174	2744	2527	13.2	
RWT 8230	Syngenta	27	392	479	261	741	349	131	2352	1481	11.7	
Summer King	Syngenta	13	174	436	479	1089	131	131	2439	1830	12.4	
Super Seedless 7167	Abbott & Cobb	29	436	349	653	741	0	44	2222	1438	10.9	
Super Seedless 7187	Abbott & Cobb	4	44	218	479	1263	305	218	2527	2265	13.6	
Sweet Delight	Syngenta	27	218	349	479	653	261	87	2047	1481	12.2	
SWT 6832	Sakata	21	392	479	741	871	0	0	2483	1612	10.7	
Tri-X-212	Syngenta	6	392	523	784	1045	218	87	3049	2134	11.8	
Tri-X-313	Syngenta	13	218	392	436	1002	261	131	2439	1830	12.4	
Tri-X- Palomar	Syngenta	21	131	131	436	741	305	131	1873	1612	13.4	
Troubadour	Harris-Moran	24	523	697	784	566	131	44	2744	1525	10.7	
Vagabond	Harris-Moran	3	131	436	828	1263	305	44	3006	2439	12.4	
WX 4868	Willhite	24	479	610	653	741	131	0	2614	1525	10.9	
Yellow Bird	D. Palmer	24	218	305	349	871	218	87	2047	1525	12.6	
Average		--	288	383	556	923	194	127	2470	1799	12.3	
LSD (0.05)		--	458	383	469	549	270	204	926	773	1.7	

¹ Mid season harvests include harvests 3 and 4.

² Yields are calculated using 100 percent seedless watermelon population. SP-4 plants were interplanted after the triploid plants, 1, 4, and 7 within the plot.

³ Ranked according to total marketable weight.

⁴ Includes fruit 10 - 18 + pounds.

Table 18. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for mid season harvests. Clayton, NC, 2009.

Cultivar	Percentages¹ (%) by Fruit Size Category					
	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
9135	5	20	18	30	18	10
9139	0	9	16	58	11	7
ACX 4674	10	15	38	30	4	4
Crunchy Red	9	13	27	39	10	1
Cut Master ESL	9	7	24	49	9	2
Fashion	29	31	25	15	0	0
Firm 'N Red	6	6	20	53	8	6
Fresh Cut ESL	7	15	22	37	11	9
Krimson Krunch	21	27	16	33	0	3
Liberty	11	16	11	40	6	15
Melody	20	20	22	27	8	2
Nomad	16	10	24	40	3	6
NUN 6032	12	12	21	43	7	4
Obsession	0	6	16	68	10	0
Orange Crisp	17	11	14	33	14	12
Pasha Red	17	22	30	28	3	0
Revolution	4	6	15	55	9	11
RWT 8216	8	15	22	36	8	10
RWT 8228	4	11	13	44	9	18
RWT 8229	6	2	33	41	11	6
RWT 8230	17	20	11	31	15	6
Summer King	7	18	20	45	5	5
Super Seedless 7167	20	16	29	33	0	2
Super Seedless 7187	2	9	19	50	12	9
Sweet Delight	11	17	23	32	13	4
SWT 6832	16	19	30	35	0	0
Tri-X-212	13	17	26	34	7	3
Tri-X-313	9	16	18	41	11	5
Tri-X- Palomar	7	7	23	40	16	7
Troubadour	19	25	29	21	5	2
Vagabond	4	14	28	42	10	1
WX 4868	18	23	25	28	5	0
Yellow Bird	11	15	17	43	11	4
Average	11	15	22	39	8	5

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

Table 19. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for late season¹ harvest by various weight classes, (per acre), including average fruit size². Clayton, N.C. 2009.

Cultivar	Seed Company	Rank³	Fruit size category (lb)							Total No./	Mkt No./	Avg
			<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+	Acre	Acre⁴	wt.	
9135	Zeraim Gedera	17	131	305	349	261	87	44	1176	741	11.8	
9139	Zeraim Gedera	4	174	261	349	523	87	44	1438	1002	11.8	
ACX 4674	Abbott & Cobb	25	392	436	479	131	0	0	1438	610	9.5	
Crunchy Red	Harris-Moran	29	174	305	174	261	44	0	958	479	10.3	
Cut Master ESL	Willhite	17	436	349	261	479	0	0	1525	741	10.6	
Fashion	Nunhems	33	610	305	131	0	0	0	1045	131	7.7	
Firm 'N Red	Abbott & Cobb	14	44	218	305	305	131	44	1045	784	12.0	
Fresh Cut ESL	Willhite	23	610	741	349	261	44	0	2004	653	9.6	
Krimson Krunch	D. Palmer	28	958	697	218	305	0	0	2178	523	8.1	
Liberty	Nunhems	5	436	261	392	479	87	0	1655	958	10.0	
Melody	Syngenta	30	958	610	174	261	0	0	2004	436	8.5	
Nomad	Harris-Moran	30	305	305	174	131	44	87	1045	436	10.5	
NUN 6032	Nunhems	3	349	305	479	566	87	44	1830	1176	11.3	
Obsession	Syngenta	1	436	349	523	610	87	131	2134	1350	11.6	
Orange Crisp	US Seedless	21	131	305	261	261	131	44	1133	697	11.7	
Pasha Red	D. Palmer	17	741	349	349	349	44	0	1830	741	9.7	
Revolution	Nunhems	14	44	261	305	392	87	0	1089	784	11.6	
RWT 8216	Syngenta	23	305	436	261	349	44	0	1394	653	10.1	
RWT 8228	Syngenta	8	218	305	392	305	174	0	1394	871	11.2	
RWT 8229	Syngenta	12	218	392	305	479	44	0	1438	828	10.6	
RWT 8230	Syngenta	5	131	305	261	566	87	44	1394	958	12.1	
Summer King	Syngenta	21	392	392	305	349	44	0	1481	697	10.1	
Super Seedless 7167	Abbott & Cobb	12	305	436	436	349	44	0	1568	828	10.4	
Super Seedless 7187	Abbott & Cobb	8	523	697	436	305	87	44	2091	871	10.2	
Sweet Delight	Syngenta	7	131	305	305	479	87	44	1350	915	11.7	
SWT 6832	Sakata	25	566	436	392	218	0	0	1612	610	9.1	
Tri-X-212	Syngenta	17	566	349	174	479	87	0	1655	741	10.2	
Tri-X-313	Syngenta	14	479	305	392	349	44	0	1568	784	9.8	
Tri-X- Palomar	Syngenta	2	566	349	349	828	87	44	2222	1307	11.0	
Troubadour	Harris-Moran	30	1002	436	218	218	0	0	1873	436	8.4	
Vagabond	Harris-Moran	8	479	305	566	218	44	44	1655	871	10.3	
WX 4868	Willhite	27	436	261	261	261	44	0	1263	566	9.8	
Yellow Bird	D. Palmer	8	392	479	349	523	0	0	1742	871	10.1	
Average		--	413	380	323	359	57	20	1552	759	10.3	
LSD (0.05)		--	440	452	348	389	151	90	873	550	1.9	

¹ Late season harvest was harvest 5.

² Yields are calculated using 100 percent seedless watermelon population. SP-4 plants were interplanted after the triploid plants, 1, 4, and 7 within the plot.

³ Ranked according to total marketable weight.

Table 20. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by number within each fruit size category for late season harvest. Clayton, NC, 2009.

Cultivar	Percentages¹ (%) by Fruit Size Category					
	<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+
9135	11	26	30	22	7	4
9139	12	18	24	36	6	3
ACX 4674	27	30	33	9	0	0
Crunchy Red	18	32	18	27	5	0
Cut Master ESL	29	23	17	31	0	0
Fashion	58	29	13	0	0	0
Firm 'N Red	4	21	29	29	13	4
Fresh Cut ESL	30	37	17	13	2	0
Krimson Krunch	44	32	10	14	0	0
Liberty	26	16	24	29	5	0
Melody	48	30	9	13	0	0
Nomad	29	29	17	13	4	8
NUN 6032	19	17	26	31	5	2
Obsession	20	16	24	29	4	6
Orange Crisp	12	27	23	23	12	4
Pasha Red	40	19	19	19	2	0
Revolution	4	24	28	36	8	0
RWT 8216	22	31	19	25	3	0
RWT 8228	16	22	28	22	13	0
RWT 8229	15	27	21	33	3	0
RWT 8230	9	22	19	41	6	3
Summer King	26	26	21	24	3	0
Super Seedless 7167	19	28	28	22	3	0
Super Seedless 7187	25	33	21	15	4	2
Sweet Delight	10	23	23	35	6	3
SWT 6832	35	27	24	14	0	0
Tri-X-212	34	21	11	29	5	0
Tri-X-313	31	19	25	22	3	0
Tri-X- Palomar	25	16	16	37	4	2
Troubadour	53	23	12	12	0	0
Vagabond	29	18	34	13	3	3
WX 4868	34	21	21	21	3	0
Yellow Bird	22	28	20	30	0	0
Average	25	25	21	23	4	1

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

Table 21. Triploid Red-Flesh watermelon hybrid cultivar trial. Fruit number for cumulative harvests, (5), by various weight classes (per acre)¹. Clayton, N.C., 2009.

Cultivar	Rank²	Fruit size category (lb)							Total	Total
		<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +	Number	Mkt. No.³	
9135	20	261	915	1002	1830	697	479	5184	4008	
9139	28	218	566	784	2222	305	218	4312	3528	
ACX 4674	1	741	1045	2265	2134	261	392	6839	5053	
Crunchy Red	14	523	958	1350	2178	523	174	5706	4225	
Cut Master ESL	17	741	566	1089	2222	392	436	5445	4138	
Fashion	33	1699	1699	1612	1133	87	0	6229	2831	
Firm 'N Red	9	174	436	958	2483	479	523	5053	4443	
Fresh Cut ESL	30	741	1307	1089	1481	523	392	5532	3485	
Krimson Krunch	28	1655	1655	1176	2091	174	87	6839	3528	
Liberty	6	871	871	958	2265	741	697	6403	4661	
Melody	32	1655	1394	1002	1525	305	218	6098	3049	
Nomad	19	784	653	1133	1873	566	523	5532	4095	
NUN 6032	3	697	653	1263	2657	523	392	6186	4835	
Obsession	11	523	523	958	2701	479	261	5445	4400	
Orange Crisp	17	697	610	741	1786	915	697	5445	4138	
Pasha Red	23	1438	1263	1525	1960	392	44	6621	3920	
Revolution	26	174	436	653	2004	436	566	4269	3659	
RWT 8216	11	523	828	1133	2091	610	566	5750	4400	
RWT 8228	20	349	523	828	1830	828	523	4879	4008	
RWT 8229	5	392	523	1394	2570	566	174	5619	4705	
RWT 8230	20	523	784	627	1830	784	697	5314	4008	
Summer King	13	610	1089	1307	2614	261	174	6055	4356	
Super Seedless 7167	24	784	1045	1438	1917	87	305	5576	3746	
Super Seedless 7187	2	566	1002	1133	2483	871	523	6578	5009	
Sweet Delight	16	436	1045	1133	1917	610	523	5663	4182	
SWT 6832	24	1133	1220	1612	1960	131	44	6098	3746	
Tri-X-212	4	1045	1089	1481	2527	479	261	6883	4748	
Tri-X-313	9	958	784	1089	2352	741	261	6186	4443	
Tri-X- Palomar	8	784	566	1045	2614	741	174	5924	4574	
Troubadour	30	1612	1307	1742	1350	349	44	6403	3485	
Vagabond	6	653	958	1742	2222	479	218	6273	4661	
WX 4868	27	1045	958	1133	1655	610	218	5619	3616	
Yellow Bird	14	610	958	1176	2396	436	218	5794	4225	
Average	--	776	916	1199	2087	496	334	5811	4118	
LSD(0.05)	--	704	703	698	890	433	392	1579	1305	

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 plants were interplanted after the triploid plants, 1, 4, and 7 within the plot.

² Ranked according to total marketable weight.

³ Includes fruit 10 - 18+ pounds.

Table 22. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by **number** within each fruit size category. **Clayton, NC., 2009.**

<u>Cultivar</u>	Percentages ¹ (%) by Fruit Size Category (lb)					
	<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>
9135	5	18	19	35	13	9
9139	5	13	18	52	7	5
ACX 4674	11	15	33	31	4	6
Crunchy Red	9	17	24	38	9	3
Cut Master ESL	14	10	20	41	7	8
Fashion	27	27	26	18	1	0
Firm 'N Red	3	9	19	49	9	10
Fresh Cut ESL	13	24	20	27	9	7
Krimson Krunch	24	24	17	31	3	1
Liberty	14	14	15	35	12	11
Melody	27	23	16	25	5	4
Nomad	14	12	20	34	10	9
NUN 6032	11	11	20	43	8	6
Obsession	10	10	18	50	9	5
Orange Crisp	13	11	14	33	17	13
Pasha Red	22	19	23	30	6	1
Revolution	4	10	15	47	10	13
RWT 8216	9	14	20	36	11	10
RWT 8228	7	11	17	37	17	11
RWT 8229	7	9	25	46	10	3
RWT 8230	10	15	12	34	15	13
Summer King	10	18	22	43	4	3
Super Seedless 7167	14	19	26	34	2	5
Super Seedless 7187	9	15	17	38	13	8
Sweet Delight	8	18	20	34	11	9
SWT 6832	19	20	26	32	2	1
Tri-X-212	15	16	22	37	7	4
Tri-X-313	15	13	18	38	12	4
Tri-X- Palomar	13	10	18	44	12	3
Troubadour	25	20	27	21	5	1
Vagabond	10	15	28	35	8	3
WX 4868	19	17	20	29	11	4
Yellow Bird	11	17	20	41	8	4
Average	13	16	20	36	9	6

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

Table 23. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested by **number** by harvest for total and total marketable categories. **Clayton, NC., 2009.**

Cultivar	Seed Company	Percentages¹ (%) by Harvest for Total and Total Marketable fruit							
		Early Harvests - (1 & 2)		Mid Harvests - (3 & 4)		Late Harvest - (5)		Total	
		Total	Mrkt.	Total	Mrkt.	Total	Mrkt.	Total	Mrkt.
9135	Zeraim Gedera	26	32	51	50	23	18		
9139	Zeraim Gedera	21	21	45	51	33	28		
ACX 4674	Abbott & Cobb	28	36	51	52	21	12		
Crunchy Red	Harris-Moran	32	35	51	54	17	11		
Cut Master ESL	Willwhite	36	42	36	40	28	18		
Fashion	Nunhems	27	46	56	49	17	5		
Firm 'N Red	Abbott & Cobb	37	40	42	42	21	18		
Fresh Cut ESL	Willwhite	28	36	36	45	36	19		
Krimson Krunch	D. Palmer	28	44	40	41	32	15		
Liberty	Nunhems	32	37	42	42	26	21		
Melody	Syngenta	32	44	35	41	33	14		
Nomad	Harris-Moran	32	40	49	49	19	11		
NUN 6032	Nunhems	31	38	39	38	30	24		
Obsession	Syngenta	36	41	25	29	39	31		
Orange Crisp	US Seedless	26	33	53	51	21	17		
Pasha Red	D. Palmer	30	38	42	43	28	19		
Revolution	Nunhems	27	29	48	50	26	21		
RWT 8216	Syngenta	31	41	45	45	24	15		
RWT 8228	Syngenta	31	37	40	41	29	22		
RWT 8229	Syngenta	26	29	49	54	26	18		
RWT 8230	Syngenta	30	39	44	37	26	24		
Summer King	Syngenta	35	42	40	42	24	16		
Super Seedless 7167	Abbott & Cobb	32	40	40	38	28	22		
Super Seedless 7187	Abbott & Cobb	30	37	38	45	32	17		
Sweet Delight	Syngenta	40	43	36	35	24	22		
SWT 6832	Sakata	33	41	41	43	26	16		
Tri-X-212	Syngenta	32	39	44	45	24	16		
Tri-X-313	Syngenta	35	41	39	41	25	18		
Tri-X- Palomar	Syngenta	31	36	32	35	38	29		
Troubadour	Harris-Moran	28	44	43	44	29	13		
Vagabond	Harris-Moran	26	29	48	52	26	19		
WX 4868	Willwhite	31	42	47	42	22	16		
Yellow Bird	D. Palmer	35	43	35	36	30	21		
Average		31	38	43	44	27	18		

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

Table 24. Triploid Red-Flesh watermelon hybrid cultivar trial. Cumulative weight per acre, (x100), of fruit harvested over five harvests by various weight classes plus average fruit size¹. Clayton, N.C. 2009.

Cultivar	Rank²	Fruit size category (lb)						Total Wt./Acre	Mkt Wt./Acre³	Avg lb./fruit
		<7.9	8-9.9	10-11.9	12-15.9	16-17.9	18+			
9135	20	17	83	111	253	117	96	677	577	13.1
9139	28	15	51	87	308	52	41	554	488	12.8
ACX 4674	4	50	95	246	294	44	77	805	661	11.7
Crunchy Red	22	34	86	147	303	86	33	689	569	12.3
Cut Master ESL	21	46	50	120	305	66	85	672	576	12.5
Fashion	33	105	153	177	156	15	0	606	347	9.7
Firm 'N Red	6	10	39	106	347	82	104	687	638	13.5
Fresh Cut ESL	27	47	119	118	208	88	75	655	489	12.0
Krimson Krunch	30	103	147	129	287	29	16	711	462	10.5
Liberty	2	60	78	104	313	124	135	815	677	12.7
Melody	32	102	125	109	210	51	43	640	413	10.8
Nomad	19	51	57	123	257	95	102	686	578	12.6
NUN 6032	3	44	59	139	372	88	73	775	673	12.7
Obsession	13	34	47	105	374	80	50	690	608	12.8
Orange Crisp	11	43	56	81	249	154	134	718	619	13.2
Pasha Red	24	93	110	166	268	66	8	711	508	11.0
Revolution	23	12	40	72	273	72	113	583	531	13.6
RWT 8216	9	34	75	124	292	104	112	742	632	13.9
RWT 8228	16	23	46	90	248	141	105	653	584	13.5
RWT 8229	7	27	47	154	352	96	35	711	637	12.7
RWT 8230	14	32	70	77	255	132	143	709	607	13.5
Summer King	18	39	99	143	355	45	36	716	578	11.9
Super Seedless 7167	26	52	94	159	261	15	61	642	496	11.5
Super Seedless 7187	1	38	91	122	341	145	109	844	716	12.8
Sweet Delight	15	26	94	127	265	102	100	714	594	12.5
SWT 6832	29	72	112	176	263	22	8	653	469	10.7
Tri-X-212	5	68	101	162	350	80	51	811	642	11.7
Tri-X-313	12	64	70	119	321	125	49	747	614	12.1
Tri-X- Palomar	8	54	53	115	362	124	32	740	633	12.5
Troubadour	31	104	115	190	188	58	9	664	445	10.5
Vagabond	10	45	88	191	311	79	42	755	623	12.2
WX 4868	25	72	87	123	228	104	44	658	499	11.8
Yellow Bird	17	42	87	128	332	73	45	707	578	12.2
Average	--	50	83	132	288	83	66	701	569	12.2
LSD (0.05)	--	45	63	77	122	73	77	183	180	1.2

¹Yields are calculated using 100 percent seedless watermelon population. SP-4 plants were interplanted after the triploid plants, 1, 4, and 7 within the plot.

² Ranked according to total marketable weight.

³ Includes fruit 10 - 18+ pounds.

Table 25. Triploid Red-Flesh watermelon hybrid cultivar trial. Percentage harvested over five harvests by weight within each fruit size category. Clayton, NC, 2009.

Cultivar	Percentages¹ (%) by Fruit Size Category					
	< 7.9	8-9.9	10-11.9	12-15.9	16-17.9	18 +
9135	3	12	16	37	17	14
9139	3	9	16	56	9	7
ACX 4674	6	12	31	36	5	10
Crunchy Red	5	12	21	44	13	5
Cut Master ESL	7	8	18	45	10	13
Fashion	17	25	29	26	2	0
Firm 'N Red	1	6	15	51	12	15
Fresh Cut ESL	7	18	18	32	13	12
Krimson Krunch	14	21	18	40	4	2
Liberty	7	10	13	38	15	17
Melody	16	20	17	33	8	7
Nomad	7	8	18	38	14	15
NUN 6032	6	8	18	48	11	9
Obsession	5	7	15	54	12	7
Orange Crisp	6	8	11	35	21	19
Pasha Red	13	15	23	38	9	1
Revolution	2	7	12	47	12	19
RWT 8216	5	10	17	39	14	15
RWT 8228	4	7	14	38	22	16
RWT 8229	4	7	22	49	13	5
RWT 8230	4	10	11	36	19	20
Summer King	5	14	20	50	6	5
Super Seedless 7167	8	15	25	41	2	10
Super Seedless 7187	4	11	14	40	17	13
Sweet Delight	4	13	18	37	14	14
SWT 6832	11	17	27	40	3	1
Tri-X-212	8	12	20	43	10	6
Tri-X-313	9	9	16	43	17	7
Tri-X- Palomar	7	7	15	49	17	4
Troubadour	16	17	29	28	9	1
Vagabond	6	12	25	41	10	6
WX 4868	11	13	19	35	16	7
Yellow Bird	6	12	18	47	10	6
Average	7	12	19	41	12	9

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 plants were interplanted among the triploid plants, 1, 4, and 7.

Table 26. Triploid Red-Flesh watermelon hybrid cultivar trial. Interior fruit quality. Clayton, N.C., 2009.¹

Cultivar	Flesh	Sd. Trace	Hard Seed	Flesh			Hollow Heart Ratings⁹					
	SS²	Color³	Size⁴	Population⁵	LD⁶	Rind⁷	Firmness⁸	HH0	HH1	HH2	HH3	HH4
9135	12.6	3.8	0.8	0.0	1.3	2.0	2.4	40	5	30	15	10
9139	12.9	3.8	1.1	0.0	1.3	1.9	2.6	50	0	20	15	15
ACX 4674	12.0	3.4	0.9	0.9	1.3	1.9	2.6	80	10	0	5	5
Crunchy Red	11.9	3.3	0.8	0.3	1.3	1.8	2.7	80	10	10	0	0
Cut Master ESL	12.4	3.7	1.0	0.3	1.3	2.1	2.5	50	5	20	20	5
Fashion	12.7	3.9	1.0	0.3	1.0	1.6	2.2	50	25	15	10	0
Firm 'N Red	12.1	3.6	0.7	0.6	1.3	2.0	2.3	65	10	5	15	5
Fresh Cut ESL	12.6	3.5	1.3	0.3	1.2	2.1	2.4	15	20	15	25	25
Krimson Krunch	12.0	3.7	0.8	0.4	1.0	1.6	2.8	35	15	20	20	10
Liberty	12.3	3.7	1.2	0.1	1.2	1.7	2.2	45	15	5	20	15
Melody	12.1	3.6	1.7	0.1	1.1	1.7	2.3	85	5	10	0	0
Nomad	12.2	3.9	1.6	0.3	1.1	1.8	2.4	80	5	15	0	0
NUN 6032	12.8	3.7	0.8	0.1	1.3	1.9	2.4	65	10	10	10	5
Obsession	12.6	4.3	1.5	0.2	1.3	1.5	2.3	50	10	20	20	0
Orange Crisp	12.2	6.0	0.6	1.3	1.0	2.2	2.8	55	20	5	15	5
Pasha Red	12.1	3.9	1.7	0.1	1.1	1.9	2.7	30	5	10	40	15
Revolution	13.0	4.1	1.3	0.1	1.7	1.9	2.7	60	10	10	10	10
RWT 8216	12.9	3.8	1.4	0.2	1.1	1.6	2.5	95	5	0	0	0
RWT 8228	12.5	3.6	0.9	0.1	1.2	1.7	2.6	95	0	0	0	5
RWT 8229	12.9	3.6	1.0	0.0	1.1	1.8	2.9	95	10	0	0	0
RWT 8230	12.7	4.0	0.7	0.7	1.2	1.6	3.0	100	0	0	0	0
Summer King	12.0	3.4	1.1	0.8	1.2	1.8	2.3	25	10	15	35	15
Super Seedless 7167	12.2	3.4	1.4	0.8	1.3	1.8	2.5	75	5	10	10	0
Super Seedless 7187	12.1	3.7	0.9	0.4	1.2	1.9	2.6	50	5	15	25	5
Sweet Delight	12.4	3.5	1.1	0.9	1.3	1.8	2.4	25	0	15	45	15
SWT 6832	11.6	3.9	1.8	0.8	1.1	1.5	2.1	55	5	20	20	0
Tri-X-212	12.0	3.9	1.4	0.3	1.1	1.9	2.3	35	5	10	30	20
Tri-X-313	12.7	3.8	1.4	0.4	1.3	1.8	2.3	25	5	25	35	10
Tri-X- Palomar	12.3	3.6	1.6	0.4	1.1	1.8	2.1	50	20	10	20	0
Troubadour	12.6	4.0	1.3	0.3	1.3	1.6	2.8	80	5	15	0	0
Vagabond	12.1	3.9	1.1	0.1	1.3	1.6	2.9	100	0	0	0	0
WX 4868	12.6	3.6	1.4	0.6	1.1	1.8	2.2	50	5	15	25	5
Yellow Bird	12.0	7.0	1.1	1.0	1.0	1.7	2.5	50	0	10	25	15
Average	12.4	3.9	1.2	0.4	1.2	1.8	2.5	59	8	11	16	7
LSD (0.05)	0.7	0.5	0.7	0.9	0.1	0.3	0.4	40	17	23	27	18

Table 26. Triploid Red-Flesh watermelon hybrid cultivar trial. Interior fruit quality, Clayton, N.C., 2009.¹ (Cont.)

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

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

⁵ Rating: 1 = few, 3 = some, 5 = many.

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 27. Triploid mini-watermelon cultivar seed sources and descriptions; 2009.

<u>Entry No.</u>	<u>Cultigen</u>	<u>Company</u>	<u>Description</u>
1	9145	Zeraim Gedera	Distinct, narrow, dark green stripes on light to medium green background; uniformly round or slightly oval shape; uniform size; firm flesh
2	FWT 6161	Sakata	Distinct, narrow, dark green stripes on a light green background; mainly round fruit to just slightly oval; uniform shape; some variation in size; average size seed traces
3	Little Duece Coupe	Syngenta	Appears as solid light green rind; distinct, extremely narrow, very dark green stripes on light green background; round to oval; fairly uniform shape and size; seed trace relatively small
4	Mini Yellow	D. Palmer	Solid dark green appearance with distinct raised very dark green ridges spaced approximately 1" apart when ripe; uniform round shape; most melons within optimum size category with some variations in size; average size seed traces that tend to be brown or tan
5	Petite Perfection	Syngenta	Distinct, very narrow dark green stripes on a light green background; uniform round or slightly oval fruit; uniform size; seed traces are relatively small
6	Precious Petite	Syngenta	Some distinct, some indistinct medium to dark green stripes on light green background; uniformly round to slightly oval fruit; uniform size; seed traces are relatively small
7	RWT 8225	Syngenta	Distinct , narrow, dark green stipes on a light green background; uniformly round shapes and size; small seed traces
8	XWT 6837	Sakata	Indistinct, medium to wide medium to dark green stripes bordered by medium green with a light green background; mainly oval fruit with uniform shape; size fairly uniform; large seed traces

Figure 3. Mini Triploid Cultivar Pictures



Figure 3. Mini Triploid Cultivar Pictures



Table 28. Triploid mini watermelon hybrid cultivar trial. Number of fruit harvested in **first** harvest by various weight classes (per acre) plus average fruit size¹. Clayton, N.C., 2009.

Cultivar	Rank²	Fruit Size Category								Total Mkt³	Avg. Wt. (lb)
		<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total		
9145	8	871	980	653	109	0	0	0	2614	1634	3.7
FWT 6161	4	436	980	1742	218	0	0	0	3376	2723	4.6
Little Deuce Coupe	1	1307	1525	1742	0	0	0	0	4574	3267	3.5
Mini Yellow	5	327	545	1525	327	762	0	218	3703	2069	5.9
Petite Perfection	1	653	653	2614	0	0	0	0	3920	3267	4.1
Precious Petite	3	1198	1960	871	0	0	0	0	4029	2831	3.4
RWT 8225	6	327	109	1851	0	0	0	0	2287	1960	5.1
XWT 6837	7	545	653	1089	109	0	0	0	2396	1742	3.9
Average	--	708	926	1511	95	95	0	27	3362	2437	4.3
LSD(0.05)	--	859	836	1362	361	285	0	131	1619	1604	1.0

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer 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 29. Triploid mini watermelon hybrid cultivar trial. Percentage of fruit number harvested in first harvest by various weight classes (per acre). Clayton, N.C., 2009.

Cultivar	Percentages¹ (%) by Fruit Size Category							Mrkt²
	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	
9145	33	38	25	4	0	0	0	63
FWT 6161	13	29	52	6	0	0	0	81
Little Deuce Coupe	29	33	38	0	0	0	0	71
Mini Yellow	9	15	41	9	21	0	6	56
Petite Perfection	17	17	67	0	0	0	0	83
Precious Petite	30	49	22	0	0	0	0	70
RWT 8225	14	5	81	0	0	0	0	86
XWT 6837	23	27	45	5	0	0	0	73
Average	21	26	46	3	3	0	1	73

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

²Includes fruit 3 to 7 lbs.

Table 30. Triploid mini watermelon hybrid cultivar trial. **Number** of fruit harvested in **second** harvest by various weight classes (per acre) plus average fruit size¹. **Clayton, N.C., 2009.**

Cultivar	Rank²	Fruit Size Category								Total Mkt³	Avg. Wt. (lb)
		<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total		
9145	1	653	1089	1416	0	0	0	0	3158	2505	3.8
FWT 6161	3	327	109	1525	0	0	0	0	1960	1634	4.8
Little Deuce Coupe	8	218	436	545	0	0	0	0	1198	980	3.7
Mini Yellow	5	653	109	1089	109	327	327	218	2831	1198	6.1
Petite Perfection	3	218	653	980	0	0	0	0	1851	1634	4.0
Precious Petite	5	871	436	762	0	0	0	0	2069	1198	3.7
RWT 8225	7	0	109	980	109	0	109	0	1307	1089	5.9
XWT 6837	2	545	871	1307	109	0	0	0	2831	2178	4.1
Average	--	436	476	1075	41	41	54	27	2151	1552	4.5
LSD(0.05)	--	484	835	1236	205	340	171	131	1214	1201	1.2

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer 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 31. Triploid mini watermelon hybrid cultivar trial. **Percentage** of fruit number harvested in **second** harvest by various weight classes (per acre). **Clayton, N.C., 2009.**

Cultivar	Percentages¹ (%) by Fruit Size Category							Mrkt²
	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	
9145	21	34	45	0	0	0	0	79
FWT 6161	17	6	78	0	0	0	0	83
Little Deuce Coupe	18	36	45	0	0	0	0	82
Mini Yellow	23	4	38	4	12	12	8	42
Petite Perfection	12	35	53	0	0	0	0	88
Precious Petite	42	21	37	0	0	0	0	58
RWT 8225	0	8	75	8	0	8	0	83
XWT 6837	19	31	46	4	0	0	0	77
Average	19	22	52	2	1	2	1	74

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer interplanted after triploid plants 1, 4, and 7 (3 plants/plot). Fruit percentages for each category are rounded to the nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 32. Triploid mini watermelon hybrid cultivar trial. **Number** of fruit harvested in **third** harvest by various weight classes (per acre) plus average fruit size¹. **Clayton, N.C., 2009.**

Cultivar	Rank²	Fruit Size Category								Total Mkt³	Avg. Wt. (lb)
		<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total		
9145	1	218	871	2069	0	0	0	0	3158	2940	4.2
FWT 6161	5	545	871	653	0	0	0	0	2069	1525	3.9
Little Deuce Coupe	4	762	871	871	0	0	0	0	2505	1742	3.8
Mini Yellow	7	109	327	1089	327	0	109	218	2178	1416	6.2
Petite Perfection	3	327	980	980	0	0	0	0	2287	1960	3.8
Precious Petite	2	762	545	1960	109	109	0	0	3485	2505	4.3
RWT 8225	5	0	327	1198	436	653	0	0	2614	1525	6.3
XWT 6837	8	545	545	327	0	0	0	0	1416	871	3.2
Average	--	408	667	1143	109	95	14	27	2464	1810	4.5
LSD(0.05)	--	661	931	1350	356	399	113	226	1710	1694	1.2

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer 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 33. Triploid mini watermelon hybrid cultivar trial. Percentage of fruit number harvested in third harvest by various weight classes (per acre). Clayton, N.C., 2009.

Cultivar	Percentages¹ (%) by Fruit Size Category							Mrkt²
	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	
9145	7	28	66	0	0	0	0	93
FWT 6161	26	42	32	0	0	0	0	74
Little Deuce Coupe	30	35	35	0	0	0	0	70
Mini Yellow	5	15	50	15	0	5	10	65
Petite Perfection	14	43	43	0	0	0	0	86
Precious Petite	22	16	56	3	3	0	0	72
RWT 8225	0	13	46	17	25	0	0	58
XWT 6837	38	38	23	0	0	0	0	62
Average	18	29	44	4	4	1	1	72

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer interplanted after triploid plants 1, 4, and 7 (3 plants/plot). Fruit percentages for each category are rounded to the nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 34. Triploid mini watermelon hybrid cultivar trial. **Number** of fruit harvested in **fourth** harvest by various weight classes (per acre) plus average fruit size¹. **Clayton, N.C., 2009.**

Cultivar	Rank²	Fruit Size Category								Total	Avg. Wt. (lb)
		<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total		
9145	1	980	653	2287	0	0	0	0	3920	2940	4.2
FWT 6161	8	653	218	762	0	0	0	0	1634	980	3.6
Little Deuce Coupe	4	545	1089	436	0	0	0	0	2069	1525	3.9
Mini Yellow	5	762	653	653	0	0	0	0	2069	1307	3.6
Petite Perfection	3	871	1198	436	0	0	0	0	2505	1634	3.3
Precious Petite	2	2178	1634	762	0	0	0	0	4574	2396	3.1
RWT 8225	7	436	327	762	0	218	0	0	1742	1089	4.7
XWT 6837	6	436	436	762	109	0	0	0	1742	1198	4.8
Average	--	858	776	858	14	27	0	0	2532	1634	3.9
LSD(0.05)	--	889	718	771	113	131	0	0	1247	870	1.2

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer 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 35. Triploid mini watermelon hybrid cultivar trial. **Percentage** of fruit number harvested in **fourth** harvest by various weight classes (per acre). **Clayton, N.C., 2009.**

Cultivar	Percentages¹ (%) by Fruit Size Category							Mrkt²
	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	
9145	25	17	58	0	0	0	0	75
FWT 6161	40	13	47	0	0	0	0	60
Little Deuce Coupe	26	53	21	0	0	0	0	74
Mini Yellow	37	32	32	0	0	0	0	63
Petite Perfection	35	48	17	0	0	0	0	65
Precious Petite	48	36	17	0	0	0	0	52
RWT 8225	25	19	44	0	13	0	0	63
XWT 6837	25	25	44	6	0	0	0	69
Average	33	30	35	1	2	0	0	65

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer interplanted after triploid plants 1, 4, and 7 (3 plants/plot). Fruit percentages for each category are rounded to the nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 36. Triploid mini watermelon hybrid cultivar trial. **Number** of fruit harvested in **fifth** harvest by various weight classes (per acre) plus average fruit size¹. **Clayton, N.C., 2009.**

Cultivar	Rank²	Fruit Size Category								Total Mkt³	Avg. Wt. (lb)
		<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Total		
9145	1	218	762	1198	0	0	0	0	2178	1960	4.0
FWT 6161	5	109	545	327	0	0	0	0	980	871	3.7
Little Deuce Coupe	3	327	762	871	0	0	0	0	1960	1634	3.9
Mini Yellow	2	436	327	1416	218	0	109	109	2614	1742	5.6
Petite Perfection	5	436	218	653	0	0	0	0	1307	871	4.1
Precious Petite	4	545	1089	327	0	0	0	0	1960	1416	3.4
RWT 8225	7	327	327	109	0	0	0	0	762	436	2.5
XWT 6837	8	218	109	109	0	0	0	0	436	218	2.5
Average	--	327	517	626	27	0	14	14	1525	1143	3.7
LSD(0.05)	--	637	687	704	226	0	113	113	1094	945	1.7

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer 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 37. Triploid mini watermelon hybrid cultivar trial. **Percentage** of fruit number harvested in **fifth** harvest by various weight classes (per acre). **Clayton, N.C., 2009.**

Cultivar	Percentages¹ (%) by Fruit Size Category							Mrkt²
	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	
9145	10	35	55	0	0	0	0	90
FWT 6161	11	56	33	0	0	0	0	89
Little Deuce Coupe	17	39	44	0	0	0	0	83
Mini Yellow	17	13	54	8	0	4	4	67
Petite Perfection	33	17	50	0	0	0	0	67
Precious Petite	28	56	17	0	0	0	0	72
RWT 8225	43	43	14	0	0	0	0	57
XWT 6837	50	25	25	0	0	0	0	50
Average	26	35	37	1	0	1	1	72

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinizer interplanted after triploid plants 1, 4, and 7 (3 plants/plot). Fruit percentages for each category are rounded to the nearest whole number.

² Includes fruit 3 to 7 lbs.

Table 38. Triploid mini watermelon hybrid cultivar trial. Cumulative **number** of fruit harvested over 5 harvests by various weight classes (per acre) plus average fruit size¹. **Clayton, N.C., 2009.**

Cultivar	Rank²	Fruit Size Category							Total	Mkt³
		<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10		
9145	1	2940	4356	7623	109	0	0	0	15028	11979
FWT 6161	5	2069	2723	5009	218	0	0	0	10019	7732
Little Deuce Coupe	4	3158	4683	4465	0	0	0	0	12306	9148
Mini Yellow	5	2287	1960	5772	980	1089	545	762	13395	7732
Petite Perfection	3	2505	3703	5663	0	0	0	0	11870	9365
Precious Petite	2	5554	5663	4683	109	109	0	0	16117	10346
RWT 8225	8	1198	1198	4901	545	871	109	0	8821	6098
XWT 6837	7	2396	2614	3594	327	0	0	0	8930	6207
Average	--	2763	3362	5214	286	259	82	95	12061	8576
LSD(0.05)	--	1558	1537	2833	492	557	257	387	2568	2526

¹ Yields are calculated using 100 percent seedless watermelon population. SP-4 was the pollinator 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 39. Triploid mini watermelon hybrid cultivar trial. Cumulative **Percentage** harvested by number within each fruit size category. **Clayton, NC, 2009.**

Cultivar	Percentages¹ (%) by Fruit Size Category							Mkt²
	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	
9145	20	29	51	1	0	0	0	80
FWT 6161	21	27	50	2	0	0	0	77
Little Deuce Coupe	26	38	36	0	0	0	0	74
Mini Yellow	17	15	43	7	8	4	6	58
Petite Perfection	21	31	48	0	0	0	0	79
Precious Petite	34	35	29	1	1	0	0	64
RWT 8225	14	14	56	6	10	1	0	69
XWT 6837	27	29	40	4	0	0	0	70
Average	22	27	44	3	2	1	1	71
LSD(0.05)	11	12	20	5	5	2	3	12

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

²Includes fruit 3 to 7 lbs.

Table 40. Triploid mini watermelon hybrid cultivar trial. Percent harvested by number by harvest within total and total marketable categories. Clayton, NC, 2009.

Cultivar	Percentages¹ (%) by harvest for Total and Total Marketable Fruit									
	Harvest 1		Harvest 2		Harvest 3		Harvest 4		Harvest 5	
	Total	Total	Total	Total	Total	Total	Total	Total	Total	Total
	Total	Mrkt.	Total	Mrkt.	Total	Mrkt.	Total	Mrkt.	Total	Mrkt.
9145	17	14	21	21	21	25	26	25	14	16
FWT 6161	34	35	20	21	21	20	16	13	10	11
Little Deuce Coupe	37	36	10	11	20	19	17	17	16	18
Mini Yellow	28	27	21	15	16	18	15	17	20	23
Petite Perfection	33	35	16	17	19	21	21	17	11	9
Precious Petite	25	27	13	12	22	24	28	23	12	14
RWT 8225	26	32	15	18	30	25	20	18	9	7
XWT 6837	27	28	32	35	16	14	20	19	5	4
Average	28	29	18	19	21	21	20	19	12	13

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

Table 41. Mini Triploid watermelon hybrid cultivar trial. Cumulative **weight** (x 100) of fruit harvested over 5 harvests by various weight classes (per acre). **Clayton, N.C., 2009.**

<u>Cultivar</u>	<u>Rank¹</u>	Fruit Size Category (lb)							<u>Total</u>	<u>Mkt²</u>	<u>Avg. Wt</u>
		<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10			
9145	1	67	153	385	8	0	0	0	613	538	4.1
FWT 6161	6	44	93	256	16	0	0	0	409	349	4.0
Little Deuce Coupe	5	74	165	215	0	0	0	0	454	380	3.7
Mini Yellow	4	51	68	312	74	94	52	86	737	380	5.6
Petite Perfection	3	63	127	271	0	0	0	0	461	397	3.9
Precious Petite	2	130	195	227	8	9	0	0	568	421	3.5
RWT 8225	7	25	44	266	41	73	10	0	458	310	5.2
XWT 6837	8	52	92	181	25	0	0	0	350	273	3.8
Average	--	63	117	264	21	22	8	11	506	381	4.2
LSD(0.05)	--	32	53	147	26	48	25	45	122	130	0.8

¹ Ranked according to total marketable number.

² Includes fruit 3 to 7 lbs.

Table 42. Triploid mini watermelon hybrid cultivar trial. Cumulative **Percentage** harvested by weight within each fruit size category. **Clayton, NC, 2009.**

Cultivar	Percentages¹ (%) by Fruit Size Category							
	<3	3-3.9	4.0-7.0	7.1-8.0	8.1-9.0	9.1-10	>10	Mkt²
9145	11	25	62	2	0	0	0	88
FWT 6161	12	24	61	3	0	0	0	85
Little Deuce Coupe	16	37	47	0	0	0	0	84
Mini Yellow	8	10	42	10	13	7	11	52
Petite Perfection	14	27	58	0	0	0	0	86
Precious Petite	23	36	38	1	2	0	0	74
RWT 8225	5	9	59	9	16	2	0	68
XWT 6837	16	30	48	5	0	0	0	78
Average	13	25	52	4	4	1	1	77
LSD	8	13	22	7	7	4	5	13

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

²Includes fruit 3 to 7 lbs.

Table 43. Mini Triploid watermelon hybrid cultivar trial. Interior fruit quality. **Clayton, NC, 2009.**¹

<u>Cultivar</u>	Rind Thickness (mm) ²	Soluble Solids ³	Flesh Color ⁴	Average Fruit Pressure ⁵		<u>Fruit</u> <u>LD</u>	Hollow Heart Ratings ⁶				
				Fruit Pressure ⁵	<u>LD</u>		HH0	HH1	HH2	HH3	HH4
9145	1.5	10.4	3.3	4.2	0.98	100	0	0	0	0	0
FWT 6161	1.2	11.0	3.9	2.8	1.13	85	15	0	0	0	0
Little Deuce Coupe	0.9	11.2	4.3	3.2	1.05	100	0	0	0	0	0
Mini Yellow	1.2	11.4	0.0	2.6	0.99	80	0	5	15	0	0
Petite Perfection	0.9	11.8	4.4	3.5	1.07	100	0	0	0	0	0
Precious Petite	0.8	11.4	4.0	3.2	1.04	100	0	0	0	0	0
RWT 8225	1.6	11.3	3.5	3.2	1.04	95	5	0	0	0	0
XWT 6837	1.1	11.1	4.1	2.8	1.10	100	0	0	0	0	0
Average	1.2	11.2	3.4	3.2	1.05	95	3	1	2	0	0
LSD (0.05)	0.2	0.8	0.4	0.3	0.02	12	8	5	10	0	0

¹ Most measurements were obtained from fruits in harvest 1.

² Rind Thickness=Rinds were measured in 4 regions of the fruit (stem end and thereafter every 90 degrees) and an average was taken for 5 fruits per replication (15 total).

³ SS = Soluble solids indicates sweetness, average of 5 melons per replication (15 total).

⁴ Rating: 1 = yellow, 2=orange/salmon, 3=red, 3.5=bright red, 4=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).