2014
North Carolina
Melon Cultivar
Evaluations

Hort. Series # 211

Principle Investigators

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General Cultural Practices

All melon trials were grown on black plastic mulch and fertigated with drip irrigation. Pesticides used on all plots were chemicals labeled for that crop, (2014 North Carolina Agricultural Chemicals Manual, (http://ipm.ncsu.edu/Agchem/agchem.html).

Acknowledgments

We gratefully acknowledge the assistance of Phillip Winslow (Superintendent) and Charles Barrow (Horticulture Crops Supervisor), Cunningham Research Station, Kinston, 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: Sam Harris, Victoria Cox, Heather Yanno, Marie Neal, and David Cassady. The cooperation and support of DP Seeds; Nunhems Seed; Rijk Zwaan, Sakata Seed America; Seedway; Seminis; and Syngenta Seeds, Inc. was also appreciated.

Disclaimer
This publication presents data from the cultivar evaluation trials conducted during 2014. 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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Introduction

Commercial production of muskmelon and specialty melons are important commodities in North Carolina. Muskmelons comprise the majority of the acreage. 'Athena' continues to be the primary cultivar grown in eastern North Carolina however; other melon cultivars have been increasing in market share in the past few years. Varieties like 'Caribbean Gold', an extended shelf life melon or Italian melons, are being given more consideration among growers and within the past few years have increased in acreage. One of the challenges in adopting these new melon types is learning how to harvest them. The extended shelf life type melons must be cut from the vine prior to the slip stage of development, otherwise the fruit is overripe and will not ship well. In addition, if the stem of the fruit is not cut, there is potential damage to the fruit as the intact stem may adhere too tightly to the fruit and cause "plugging" of the flesh, which renders the fruit unmarketable. Harvest challenges with Italian melons also exist. If one waits until the fruit slips, it may be too late, as these fruit are prone to splitting, especially if precipitation events occur. Italian fruit may require two harvests per day since ripening and splitting are so closely associated with optimum harvest time.

An objective of our melon trialing is to identify adapted cultivars that NC growers can grow profitably. As a result of these efforts and a vigorous Extension educational program, the acreage of specialty melons for shipping and local market sales has increased and growers continue to show interest in the new opportunities. Trader Joes in North Carolina is offering the Italian or Tuscan melons seasonally from a local grower in NC, and more recently galia type melons are being offered and shipped to NC from Central America. Production of varieties such as 'Caribbean Gold', as well as, certain canary melons and various specialty melons continue to increase as more and more growers discover new "niche" markets and adapted cultivars. Canary melons are grown sporadically, but the continued growth of these specialty melons is dependent on educating the consumer and providing a quality product each time a purchase is made.

Materials and Methods

In February and March, seed companies were contacted to obtain seed for the muskmelon melon trials. All seed were acid treated for bacterial fruit blotch on 8 April. The melon trials were then planted into Poly growing transplant trays (Hummert Int.; Earth City, MO) on 15-16 April, 2014. The planting medium used was a Fine Germinating Mix, a commercial soil less mix (Carolina Soil Company; Kinston, NC). Approximately 3 weeks after seeding, the plants were placed in a "hardening" greenhouse and hardened before being established in the field on 15 May, 2014. Fertilizer, 55 lb/acre N, 55 lb/acre P_2O_5, and 110 lb/acre K_20, was incorporated into the bed on 14 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 25 April. Fumigant (Telone II) at a rate of 6.5 gal./acre was injected on 25 April when the plastic was laid. Herbicides, Dual at 1.5pint/ac. and Sinbar at 3 oz. /acre were applied between the plastic beds in the row middles for weed control on 2 May. Spacing between row middles was 5 feet and in-row spacing was 2 feet. Plot size was one row with 10 plants per plot, (20 feet long), with 5 feet between plots. Four replications were used in the muskmelon cultivar test. At time of transplant, a starter solution was applied using 20-20-20 (0.5 lb/50 gallons water) in the transplant water and Diazonon at 1.5pt./acre was applied through the drip tube for wireworm control. Plots with missing plants were replanted approximately 7 days after planting to achieve 100% stand in most cases. Trickle irrigation was utilized (NETAFIM, 12 inch spacing, 0.24 gph; NETAFIM, Tel Aviv, Israel) over the growing season. Fertigation was initiated 10 days after planting and applied weekly. Fertilizer was applied through the drip tube during the planting season as a 4-0-8 formulation. The first application was

25 May and the last was 24 July. Total fertigation applied throughout the growing season was 16.4 lb. N and 32.8 lb. K_20. The total fertilizer applied for the growing season was 82.4 lb/acre N, 60 lb/acre P_2O_5, and 164.8 lb/acre K_20.

Insecticides were applied every 7 to 10 days as a preventative measure beginning 2 June and on the following dates: 11, 18, and 25 June; 2 and 9 July. The following products were alternated during consecutive spray applications to avoid insect and mite resistance: Permethrin and Venom. Similarly, the following fungicide products were used; Asana, Presidio, Procure, Previcur Flex, Quintec, Ranman, and Zampro; and applied on the following dates; 2, 11, 18, and 25 June; 2 and 9 July.

There were a total of 10 harvests for the muskmelon trial. The first harvest was 9 July and the tenth harvest was 25 July. Harvests were made three times per week on Monday, Wednesday, and Friday. Each fruit was harvested when ripe and weighed. Evaluations of each melon entry included yield, fruit size, production earliness, soluble solids using a digital refractometer, fruit shape and size, exterior and interior descriptions (rind, length/width ratio, and flesh color), and interior flesh firmness. Flesh firmness was taken by using a Penetrometer FT 011 with a 5/16" 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 between the cavity and rind of the fruit on either side of each fruit. The reported measures on flesh firmness are an average of the two sample areas on five fruit per plot (10 total sampling areas). Most of the quality measurements were taken between the second and seventh harvests as the cultigens became ripe.

The conditions throughout the harvest period were again hot in North Carolina; however, there was adequate rainfall through the month of June and parts of July as well as optimal ambient temperatures that allowed for good plant growth and fruit set within all the cultigen plots.

Results

Similar to past years trials, there were differences in yield throughout the harvest season. Early maturing entries included Athena, Napoli, and Atlantis where approximately 45% of the fruit harvested occurred within the first 3 harvests. Overall, peak harvest for most cultigens occurred within harvests 4 to 7. The latest maturing fruit included the canary varieties of Camposol, Hibrix, and Tweety. Cultigens with the highest total yields, based on fruit number, were 'Banzai' and 'Florida'. These also produced the smallest sized fruit, 2.6 and 2.2 pounds per fruit, respectively. The cultigen with the highest total yields based on hundred weight per acre, (cwt/acre), was 'NUN 26287' that produced fruits that averaged 7.6 pounds per fruit however, there were other cultigens that produced just as well that included 'Caribbean King', 'Aphrodite', and a new line from DP Seeds, 'ESC-14-93'. Soluble solids were excellent among all cultigens as all had between 12.0 and 16.0% soluble solids. Flesh firmness was generally good for most entries, with 'Caribbean Gold', 'Banzai', 'Florida', and 'SV2998MF'' having significantly firmer flesh than all other cultigens with average flesh firmness readings of 7.0 lbs. or higher. Cultigens that are among the leaders in commercial melon production within the Southeast consistently had the softest flesh firmness readings. These cultigens include 'Athena', 'Atlantis', and 'Aphrodite'.

In summary, with respect to fruit quality, the following entries had two or more outstanding attributes when quality was considered for flesh firmness, orange flesh color, sweetness, and cavity size. 'Banzai' and 'Florida' were small fruit producers but were some of the firmest flesh melons with a very small seed cavity and very good flesh color as well as some of the sweetest melons sampled. In regards to the more commercially marketed size muskmelon cultigens, 'SV2998MF', 'SV6239MF', 'SME 7048', and 'Infinite Gold' were some of the firmest flesh entries that also produced some the highest soluble solid ratings and contained the best interior orange flesh colors. The standard cultigen for North Carolina growers; 'Athena', consisted of one of the softest flesh firmnesses among other cultigens however, overall quality of this cultigen was still very good.

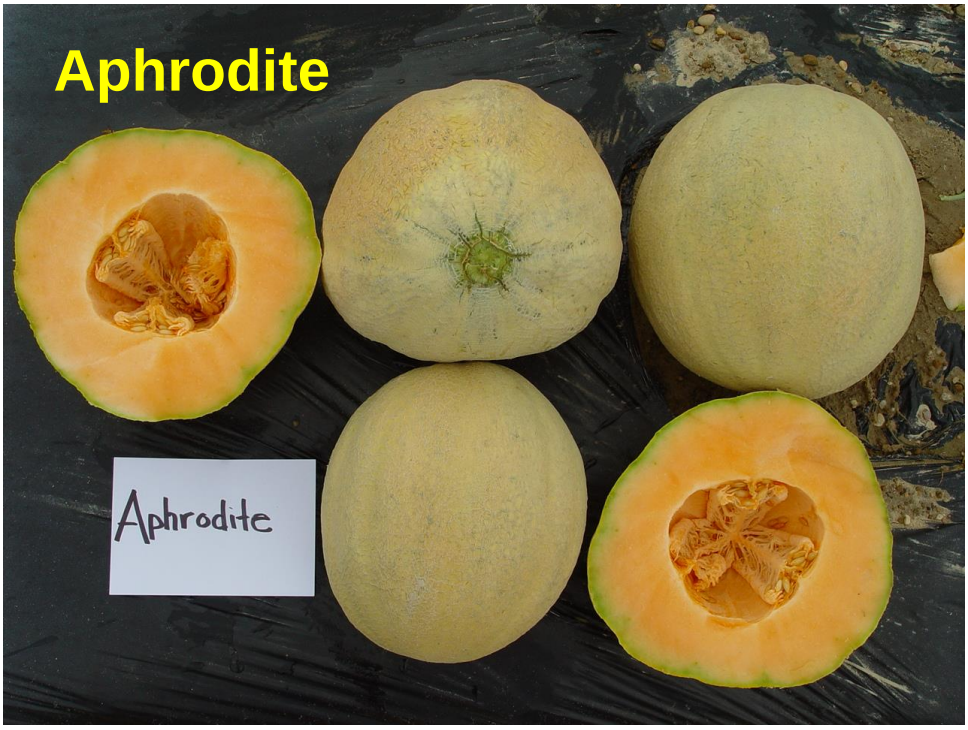
The melon industry has been in transition the past few years and there has been new categorization of the muskmelons. Traditional categories are western shippers and eastern melons. Today, there are Italian or Tuscan melons, and Extended Shelf Life types. There may even be new size category types. For example, we may see the emergence of a smaller size melon termed or marketed as a "breakfast" melon. There are some exciting opportunities for this industry.

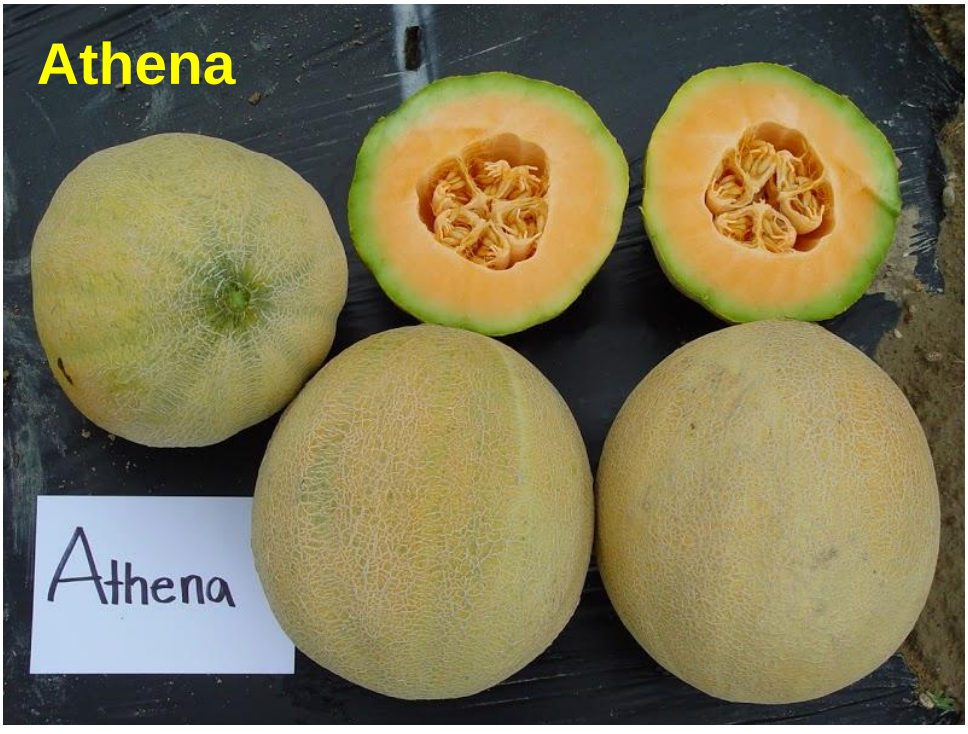
Financial Support

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

2014 Melon Cultivar Pictures

2014 Melon Cultivar Pictures



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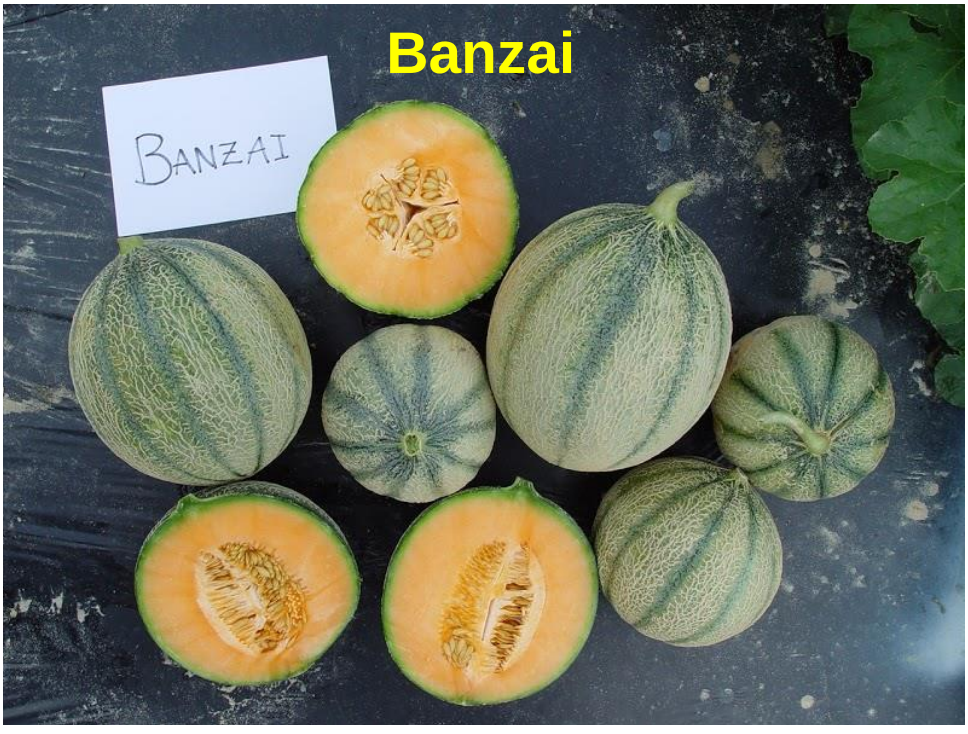
ATLANTIS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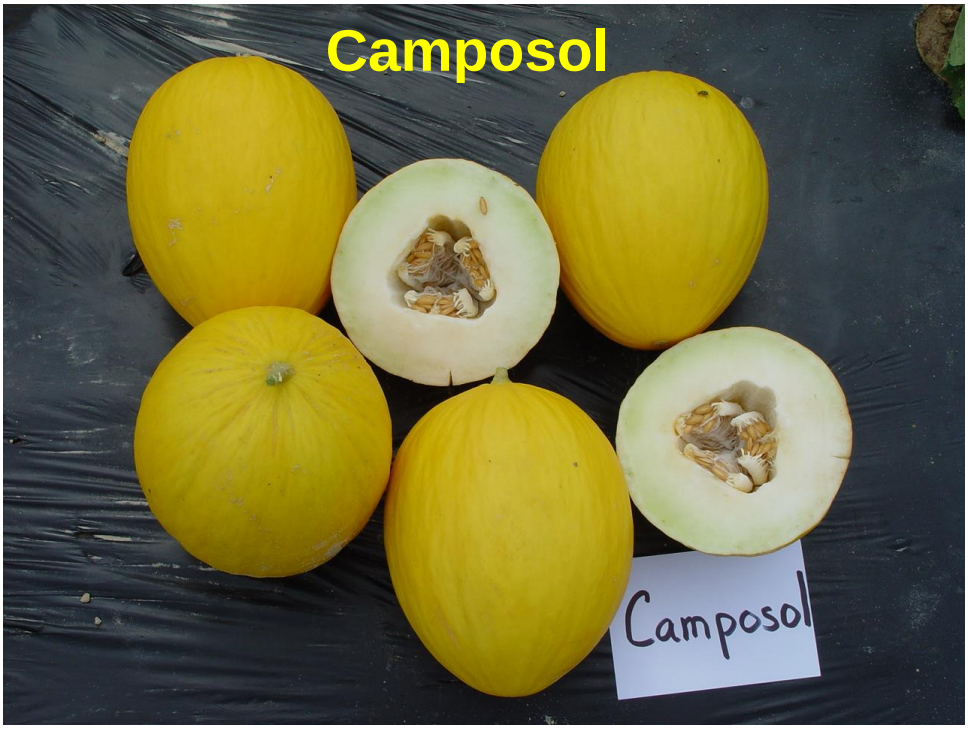
BANZAI


Camposol
Camposol

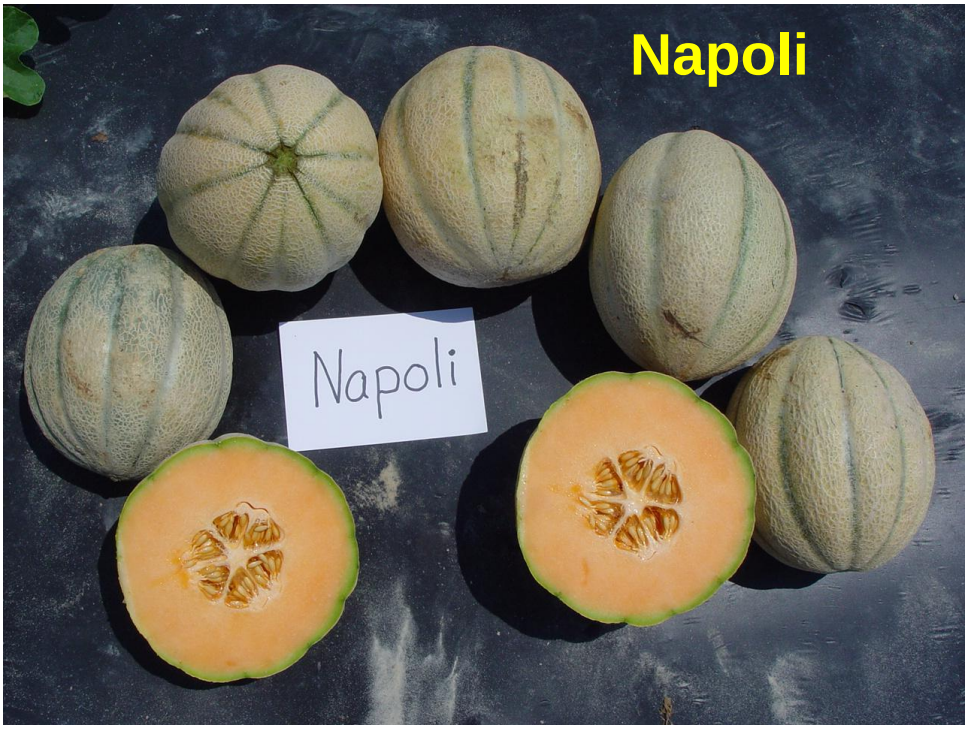

Caribbean Gold
Caribbean Gold


Caribbean King
CARIBBEAN
KING


Florida
Florida


Hibrix
Hibrix


Infinite Gold
INFINITE
GOLD


Napoli
Napoli


NUN 26287
NUN
26287


SME 7048
SME 7048


Sunny Dee
Sunny Dee

2014 Melon Cultivar Pictures

2014 Melon Cultivar Pictures

2014 Melon Cultivar Pictures

Table 1. Muskmelon cultigen trial yields, **Cumulative** fruit weight, (x 100), per acre for **early**[1] **season** harvests 1 - 3. **Kinston, NC, 2014.**

	Fruit size category				Cumulative	Avg.
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**	**Totals** [2]	**Wt.** [3]
351	0	104	34	0	138	5.9
7609	3	71	0	0	74	4.5
Aphrodite	0	49	105	110	264	8.5
Athena	8	255	50	0	312	5.0
Atlantis	3	149	113	10	275	6.3
Banzai	35	0	0	0	35	1.8
Camposol	- -	- -	- -	- -	- -	- -
Caribbean Gold	0	44	0	0	44	5.0
Caribbean King	0	186	16	0	202	5.6
Florida	48	0	0	0	48	1.6
Hibrix	0	12	0	0	12	3.9
Infinite Gold	9	82	0	0	91	4.0
Napoli	3	222	16	0	241	4.3
NUN 26287	0	70	82	21	173	7.2
SME 7048	0	94	25	0	119	5.9
Sunny Dee	49	106	0	0	156	3.4
SV2998MF	0	152	33	10	195	5.7
SV6239MF	6	87	9	0	102	4.3
Tweety	0	0	9	0	9	8.2
ESC-14-93	13	212	0	0	225	4.9
LM-14-92	19	113	0	0	132	3.8
Average	10	100	25	7	142	5.0
LSD (0.05)	**34**	**93**	**47**	**61**	**96**	**- -**

[1] Early harvests (1-3) : 9 - 14 July (55 - 59 days after planting).

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 2. Muskmelon cultigen trial yields, **Cumulative** fruit number per acre for **early**[1] **season** harvests 1 - 3. **Kinston, NC, 2014.**

	Fruit size category				Cumulative
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**	**Totals** [2]
351	0	1960	436	0	2396
7609	109	1525	0	0	1634
Aphrodite	0	762	1307	1089	3158
Athena	327	5227	653	0	6207
Atlantis	109	2723	1416	109	4356
Banzai	1960	0	0	0	1960
Camposol	- -	- -	- -	- -	- -
Caribbean Gold	0	871	0	0	871
Caribbean King	0	3376	218	0	3594
Florida	2940	0	0	0	2940
Hibrix	0	327	0	0	327
Infinite Gold	327	1851	0	0	2178
Napoli	109	5227	218	0	5554
NUN 26287	0	1089	1089	218	2396
SME 7048	0	1742	327	0	2069
Sunny Dee	2069	2723	0	0	4792
SV2998MF	0	2831	436	109	3376
SV6239MF	218	1960	109	0	2287
Tweety	0	0	109	0	109
ESC-14-93	545	4029	0	0	4574
LM-14-92	762	2614	0	0	3376
Average	474	2042	316	76	2908
LSD (0.05)	**1476**	**1834**	**623**	**625**	**1916**

[1] Early harvests (1-3) : 9 - 14 July (55 - 59 days after planting).

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 3. Muskmelon cultigen trial yields; **Percent of fruit weight** per indicated size category - **Early harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	0	76	24	0
7609	4	96	0	0
Aphrodite	0	19	40	42
Athena	3	82	16	0
Atlantis	1	54	41	4
Banzai	100	0	0	0
Camposol	- -	- -	- -	- -
Caribbean Gold	0	100	0	0
Caribbean King	0	92	8	0
Florida	100	0	0	0
Hibrix	0	100	0	0
Infinite Gold	10	90	0	0
Napoli	1	92	7	0
NUN 26287	0	40	47	12
SME 7048	0	79	21	0
Sunny Dee	32	68	0	0
SV2998MF	0	78	17	5
SV6239MF	6	85	9	0
Tweety	0	0	100	0
ESC-14-93	6	94	0	0
LM-14-92	14	86	0	0
Average	14	67	17	3

Table 4. Muskmelon cultigen trial yields; **Percent of fruit number** per indicated size category - **Early harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	0	82	18	0
7609	7	93	0	0
Aphrodite	0	24	41	34
Athena	5	84	11	0
Atlantis	3	63	33	3
Banzai	100	0	0	0
Camposol	- -	- -	- -	- -
Caribbean Gold	0	100	0	0
Caribbean King	0	94	6	0
Florida	100	0	0	0
Hibrix	0	100	0	0
Infinite Gold	15	85	0	0
Napoli	2	94	4	0
NUN 26287	0	45	45	9
SME 7048	0	84	16	0
Sunny Dee	43	57	0	0
SV2998MF	0	84	13	3
SV6239MF	10	86	5	0
Tweety	0	0	100	0
ESC-14-93	12	88	0	0
LM-14-92	23	77	0	0
Average	16	67	15	2

Table 5. Muskmelon cultigen trial yields, **Cumulative** fruit weight, (x 100), per acre for **mid[1] season** harvests 4 - 7. **Kinston, NC, 2014.**

Cultivar	Fruit size category				Cumulative Totals [2]	Avg. Wt. [3]
	< 3 lb	3-7 lb	7.1 - 9 lb	> 9 lb		
351	3	129	106	76	314	7.0
7609	6	350	26	0	382	5.5
Aphrodite	0	62	98	162	323	8.3
Athena	2	102	66	31	201	6.5
Atlantis	3	83	185	44	316	7.4
Banzai	186	115	0	0	301	2.7
Camposol	0	208	169	0	377	6.7
Caribbean Gold	2	475	0	0	477	5.1
Caribbean King	5	176	151	147	479	7.7
Florida	142	52	0	0	194	2.3
Hibrix	0	240	50	20	310	6.0
Infinite Gold	4	370	94	0	467	5.6
Napoli	6	256	9	0	271	5.0
NUN 26287	2	35	188	155	380	8.5
SME 7048	0	382	140	10	532	6.0
Sunny Dee	10	320	100	0	430	5.6
SV2998MF	0	313	91	10	415	6.2
SV6239MF	3	362	9	0	374	4.9
Tweety	0	119	155	10	284	7.0
ESC-14-93	30	377	31	0	438	4.9
LM-14-92	9	240	17	0	266	5.2
Average	20	227	80	32	359	5.9
LSD (0.05)	**33**	**116**	**82**	**75**	**141**	**- -**

[1] Mid harvests (4-7) : 16 July - 23 July (61 - 69 days after planting).

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 6. Muskmelon cultigen trial yields, **Cumulative** fruit number per acre for **mid**[1] **season** harvests 4 - 7. **Kinston, NC, 2014.**

	Fruit size category				Cumulative
Cultivar	< 3 lb	3-7 lb	7.1 - 9 lb	> 9 lb	Totals [2]
351	109	2287	1307	762	4465
7609	218	6534	327	0	7079
Aphrodite	0	1198	1198	1525	3920
Athena	109	1742	871	327	3049
Atlantis	109	1525	2287	436	4356
Banzai	7623	3485	0	0	11108
Camposol	0	3485	2178	0	5663
Caribbean Gold	109	9257	0	0	9365
Caribbean King	218	3158	1960	980	6316
Florida	6861	1634	0	0	8494
Hibrix	0	4356	653	218	5227
Infinite Gold	218	6970	1198	0	8385
Napoli	218	5009	109	0	5336
NUN 26287	109	653	2287	1416	4465
SME 7048	0	6861	1851	109	8821
Sunny Dee	436	5881	1307	0	7623
SV2998MF	0	5336	1198	109	6643
SV6239MF	109	7514	109	0	7732
Tweety	0	2069	1960	109	4138
ESC-14-93	1307	7296	436	0	9039
LM-14-92	436	4465	218	0	5118
Average	866	4320	1022	285	6492
LSD (0.05)	**1435**	**2236**	**1039**	**650**	**2643**

[1] Mid harvests (4-7) : 16 July - 23 July (61 - 69 days after planting).

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 7. Muskmelon cultigen trial yields; **Percent of fruit weight** per indicated size category - **Mid Season harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	1	41	34	24
7609	1	92	7	0
Aphrodite	0	19	30	50
Athena	1	51	33	16
Atlantis	1	26	59	14
Banzai	62	38	0	0
Camposol	0	55	45	0
Caribbean Gold	0	100	0	0
Caribbean King	1	37	31	31
Florida	73	27	0	0
Hibrix	0	77	16	7
Infinite Gold	1	79	20	0
Napoli	2	95	3	0
NUN 26287	1	9	49	41
SME 7048	0	72	26	2
Sunny Dee	2	74	23	0
SV2998MF	0	75	22	2
SV6239MF	1	97	2	0
Tweety	0	42	54	4
ESC-14-93	7	86	7	0
LM-14-92	3	90	6	0
Average	8	61	22	9

Table 8. Muskmelon cultigen trial yields; **Percent fruit number** per indicated size category - **Mid Season harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	2	51	29	17
7609	3	92	5	0
Aphrodite	0	31	31	39
Athena	4	57	29	11
Atlantis	3	35	53	10
Banzai	69	31	0	0
Camposol	0	62	38	0
Caribbean Gold	1	99	0	0
Caribbean King	3	50	31	16
Florida	81	19	0	0
Hibrix	0	83	13	4
Infinite Gold	3	83	14	0
Napoli	4	94	2	0
NUN 26287	2	15	51	32
SME 7048	0	78	21	1
Sunny Dee	6	77	17	0
SV2998MF	0	80	18	2
SV6239MF	1	97	1	0
Tweety	0	50	47	3
ESC-14-93	14	81	5	0
LM-14-92	9	87	4	0
Average	10	64	19	6

Table 9. Muskmelon cultigen trial yields, **Cumulative** fruit weight, (x 100), per acre for **late[1] season** harvests 8 - 10. **Kinston, NC, 2014.**

Cultivar	Fruit size category				Cumulative Totals [2]	Avg. Wt. [3]
	< 3 lb	3-7 lb	7.1 - 9 lb	> 9 lb		
351	2.5	90.9	15.8	10.2	119.5	5.6
7609	11.2	50.1	0.0	0.0	61.3	3.6
Aphrodite	0.0	38.3	42.1	31.3	111.7	7.4
Athena	5.0	68.0	15.8	0.0	88.8	5.2
Atlantis	0.0	57.7	8.8	0.0	66.5	5.4
Banzai	61.9	43.5	0.0	0.0	105.3	2.6
Camposol	0.0	165.1	57.0	0.0	222.1	6.1
Caribbean Gold	12.1	69.6	8.1	0.0	89.7	4.4
Caribbean King	0.0	49.2	0.0	0.0	49.2	5.2
Florida	135.9	21.8	0.0	0.0	157.7	2.4
Hibrix	6.0	125.0	7.7	20.3	159.0	5.4
Infinite Gold	8.2	21.8	0.0	0.0	30.0	4.1
Napoli	8.7	16.0	0.0	0.0	24.7	3.1
NUN 26287	0.0	115.0	94.3	35.3	244.6	7.0
SME 7048	0.0	24.3	16.4	0.0	40.7	6.5
Sunny Dee	20.6	71.2	0.0	0.0	91.8	3.6
SV2998MF	0.0	54.6	0.0	0.0	54.6	4.8
SV6239MF	10.9	55.5	0.0	0.0	66.4	3.5
Tweety	5.0	128.0	68.5	20.7	222.2	6.3
ESC-14-93	10.2	31.9	0.0	0.0	42.1	4.1
LM-14-92	2.4	32.5	0.0	0.0	34.9	4.1
Average	14.3	63.3	15.9	5.6	82.6	4.8
LSD (0.05)	**23.7**	**68.2**	**43.6**	**49.6**	**78.0**	**- -**

[1] Late harvests (8-10) : 25 July - 1 Aug. (71 - 78 days after planting).

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 10. Muskmelon cultigen trial yields, **Cumulative** fruit number per acre for **late**[1] **season** harvests 8 - 10. **Kinston, NC, 2014.**

	Fruit size category				Cumulative
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**	**Totals** [2]
351	109	1851	218	109	2287
7609	436	1198	0	0	1634
Aphrodite	0	653	545	327	1525
Athena	218	1307	218	0	1742
Atlantis	0	1089	109	0	1198
Banzai	2831	1307	0	0	4138
Camposol	0	2831	762	0	3594
Caribbean Gold	436	1525	109	0	2069
Caribbean King	0	980	0	0	980
Florida	5990	653	0	0	6643
Hibrix	218	2287	109	218	2831
Infinite Gold	327	436	0	0	762
Napoli	327	436	0	0	762
NUN 26287	0	2069	1198	327	3594
SME 7048	0	436	218	0	653
Sunny Dee	762	1634	0	0	2396
SV2998MF	0	1089	0	0	1089
SV6239MF	436	1307	0	0	1742
Tweety	218	2287	871	218	3594
ESC-14-93	436	653	0	0	1089
LM-14-92	109	762	0	0	871
Average	612	1276	207	57	2152
LSD (0.05)	**1182**	**1417**	**564**	**509**	**1748**

[1] Late harvests (8-10) : 25 July - 1 Aug. (71 - 78 days after planting).

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 11. Muskmelon cultigen trial yields; **Percent of fruit weight** per indicated size category - **Late harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	2	76	13	9
7609	18	82	0	0
Aphrodite	0	34	38	28
Athena	6	77	18	0
Atlantis	0	87	13	0
Banzai	59	41	0	0
Camposol	0	74	26	0
Caribbean Gold	13	78	9	0
Caribbean King	0	100	0	0
Florida	86	14	0	0
Hibrix	4	79	5	13
Infinite Gold	27	73	0	0
Napoli	35	65	0	0
NUN 26287	0	47	39	14
SME 7048	0	60	40	0
Sunny Dee	22	78	0	0
SV2998MF	0	100	0	0
SV6239MF	16	84	0	0
Tweety	2	58	31	9
ESC-14-93	24	76	0	0
LM-14-92	7	93	0	0
Average	15	70	11	3

Table 12. Muskmelon cultigen trial yields; **Percent fruit number** per indicated size category - **Late harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	5	81	10	5
7609	27	73	0	0
Aphrodite	0	43	36	21
Athena	13	75	13	0
Atlantis	0	91	9	0
Banzai	68	32	0	0
Camposol	0	79	21	0
Caribbean Gold	21	74	5	0
Caribbean King	0	100	0	0
Florida	90	10	0	0
Hibrix	8	81	4	8
Infinite Gold	43	57	0	0
Napoli	43	57	0	0
NUN 26287	0	58	33	9
SME 7048	0	67	33	0
Sunny Dee	32	68	0	0
SV2998MF	0	100	0	0
SV6239MF	25	75	0	0
Tweety	6	64	24	6
ESC-14-93	40	60	0	0
LM-14-92	13	88	0	0
Average	21	68	9	2

Table 13. Muskmelon cultigen trial yields[1], **Cumulative** fruit weight, (x 100), per acre across all harvests. **Kinston, NC, 2014.**

Cultivar	Fruit size category				Cumulative Totals [2]	Avg. Wt. [3]
	< 3 lb	3-7 lb	7.1 - 9 lb	> 9 lb		
351	5.0	323.8	155.7	86.5	571.0	6.2
7609	19.9	471.2	26.0	0.0	517.2	5.0
Aphrodite	0.0	149.6	245.6	303.2	698.4	8.1
Athena	14.7	424.7	131.0	31.4	601.8	5.5
Atlantis	5.9	289.8	307.3	54.3	657.3	6.6
Banzai	283.4	158.3	0.0	0.0	441.7	2.6
Camposol	0.0	373.5	225.6	0.0	599.2	6.5
Caribbean Gold	14.3	589.3	8.1	0.0	611.6	4.9
Caribbean King	5.3	410.9	167.3	147.0	730.5	6.7
Florida	326.6	73.6	0.0	0.0	400.2	2.2
Hibrix	6.0	376.9	58.2	40.5	481.6	5.8
Infinite Gold	20.6	473.4	93.7	0.0	587.6	5.2
Napoli	17.5	494.5	25.1	0.0	537.1	4.6
NUN 26287	2.2	219.8	363.4	211.9	797.3	7.6
SME 7048	0.0	500.3	181.4	10.0	691.7	6.0
Sunny Dee	80.5	496.8	99.8	0.0	677.0	4.5
SV2998MF	0.0	518.9	124.4	20.6	663.9	6.0
SV6239MF	19.6	503.7	18.5	0.0	541.8	4.6
Tweety	5.0	247.4	232.5	30.7	515.6	6.7
ESC-14-93	52.5	621.3	31.4	0.0	705.1	4.8
LM-14-92	30.3	386.2	16.8	0.0	433.2	4.6
Average	43.3	385.9	119.6	44.6	593.4	5.5
LSD (0.05)	**46.9**	**121.9**	**91.2**	**94.5**	**130.8**	**0.6**

[1] Melons were harvested 3 times per week.

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 14. Muskmelon cultigen trial yields[1], **Cumulative** fruit per acre number across all harvests. **Kinston, NC, 2014.**

	Fruit size category				Cumulative
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**	**Totals [2]**
351	218	6098	1960	871	9148
7609	762	9257	327	0	10346
Aphrodite	0	2614	3049	2940	8603
Athena	653	8276	1742	327	10999
Atlantis	218	5336	3812	545	9910
Banzai	12415	4792	0	0	17206
Camposol	0	6316	2940	0	9257
Caribbean Gold	545	11652	109	0	12306
Caribbean King	218	7514	2178	980	10890
Florida	15791	2287	0	0	18077
Hibrix	218	6970	762	436	8385
Infinite Gold	871	9257	1198	0	11326
Napoli	653	10672	327	0	11652
NUN 26287	109	3812	4574	1960	10454
SME 7048	0	9039	2396	109	11543
Sunny Dee	3267	10237	1307	0	14810
SV2998MF	0	9257	1634	218	11108
SV6239MF	762	10781	218	0	11761
Tweety	218	4356	2940	327	7841
ESC-14-93	2287	11979	436	0	14702
LM-14-92	1307	7841	218	0	9365
Average	1929	7540	1530	415	11414
LSD (0.05)	**2237**	**2434**	**1167**	**836**	**2403**

[1] Melons were harvested 3 times per week.

[2] Cumulative total includes all fruit size categories.

[3] Average fruit weights were determined using total cumulative weights and numbers from respective harvests.

Table 15. Muskmelon cultigen trial yields; **Percent of fruit weight** per indicated size category - **Cumulative harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	1	59	25	15
7609	4	91	5	0
Aphrodite	0	20	36	43
Athena	3	71	22	5
Atlantis	1	45	46	8
Banzai	66	34	0	0
Camposol	0	62	38	0
Caribbean Gold	2	97	1	0
Caribbean King	1	56	23	20
Florida	82	18	0	0
Hibrix	1	81	10	7
Infinite Gold	4	81	16	0
Napoli	3	92	5	0
NUN 26287	0	29	46	25
SME 7048	0	72	27	2
Sunny Dee	12	75	13	0
SV2998MF	0	79	18	3
SV6239MF	4	93	3	0
Tweety	1	45	47	6
ESC-14-93	7	89	4	0
LM-14-92	7	90	3	0
Average	9	66	19	6
LSD (0.05)	**10**	**18**	**15**	**11**

Table 16. Muskmelon cultigen trial yields; **Percent fruit number** per indicated size category - **Cumulative harvests**. **Kinston, NC, 2014.**

	Fruit size category			
Cultivar	**< 3 lb**	**3-7 lb**	**7.1 - 9 lb**	**> 9 lb**
351	3	67	21	10
7609	7	89	3	0
Aphrodite	0	29	36	34
Athena	6	75	16	3
Atlantis	2	54	38	6
Banzai	72	28	0	0
Camposol	0	68	32	0
Caribbean Gold	4	95	1	0
Caribbean King	2	69	20	9
Florida	87	13	0	0
Hibrix	2	84	9	5
Infinite Gold	8	82	11	0
Napoli	6	92	3	0
NUN 26287	1	37	44	18
SME 7048	0	78	21	1
Sunny Dee	21	70	8	0
SV2998MF	0	84	15	2
SV6239MF	7	91	2	0
Tweety	3	52	40	4
ESC-14-93	15	82	3	0
LM-14-92	14	84	2	0
Average	12	68	15	4
LSD (0.05)	**12**	**17**	**13**	**8**

Table 17. Muskmelon cultigen trial percentage of fruit **number** harvested among varying harvest intervals. **Kinston, NC, 2014.**

		Pecentage harvested among harvest periods		
Cultivar	**Company**	**Early Harvests[1]**	**Mid Harvests[2]**	**Late Harvests[3]**
351	Nunhems	26	49	25
7609	Nunhems	16	68	16
Aphrodite	Syngenta	37	46	18
Athena	Syngenta	56	28	16
Atlantis	Sakata	44	44	12
Banzai	Seminis	11	65	24
Camposol	Seedway	- -	61	39
Caribbean Gold	Rijk Zwaan	7	76	17
Caribbean King	Rijk Zwaan	33	58	9
Florida	Seminis	16	47	37
Hibrix	Nunhems	4	62	34
Infinite Gold	Sakata	19	74	7
Napoli	DP Seeds	48	46	7
NUN 26287	Nunhems	23	43	34
SME 7048	Sakata	18	76	6
Sunny Dee	Nunhems	32	51	16
SV2998MF	Seminis	30	60	10
SV6239MF	Seminis	19	66	15
Tweety	DP Seeds	1	53	46
ESC-14-93	DP Seeds	31	61	7
LM-14-92	DP Seeds	36	55	9
Average		**25**	**56**	**20**

[1] Early harvests (1-3) : 9 - 14 July (55 - 59 days after planting).
[2] Mid harvests (4-7) : 16 July - 23 July (61 - 69 days after planting).
[3] Late harvests (8-10) : 5 July - 1 Aug. (71 - 78 days after planting).

Table 18. Eastern muskmelon hybrid cultivar trial. Descriptive characteristics and interior fruit quality. **Kinston, N.C., 2014.**[1]

Cultivar	Company	SS[2]	Sutures[3]	Netting Density[4]	Netting Type[5]	Stem Scar[6]	Stem Splitting[7]	LD[8]	Flesh Color[9]	Flesh Firmness[10]	Cavity[11]	Shape[12]	Foliage Cover[13]
351	Nunhems	13.6	3.5	2.8	3.3	0.0	0.0	1.2	3.0	6.5	1.9	4.6	3.9
7609	Nunhems	13.6	1.0	3.3	2.8	1.4	1.1	1.1	4.3	6.2	1.6	4.9	4.0
Aphrodite	Syngenta	13.0	2.5	2.4	2.8	3.4	2.6	1.1	2.8	3.8	3.0	3.6	4.3
Athena	Syngenta	12.6	1.5	2.9	2.8	1.6	1.9	1.1	2.8	2.9	2.3	4.3	4.0
Atlantis	Sakata	12.6	1.4	2.5	2.9	1.9	2.1	1.1	3.8	3.6	2.5	4.4	3.9
Banzai	Seminis	16.0	2.8	2.0	3.1	0.0	0.0	1.0	4.0	7.0	1.1	4.4	4.5
Camposol	Seedway	14.0	2.0	0.0	0.0	0.0	0.0	1.3	0.0	5.7	2.4	4.1	4.9
Caribbean Gold	Rijk Zwaan	13.6	1.0	3.3	2.9	0.0	0.0	1.2	2.6	7.0	1.8	4.3	4.3
Caribbean King	Rijk Zwaan	13.7	1.0	2.9	2.8	0.0	0.0	1.1	2.8	5.8	2.1	4.9	4.4
Florida	Seminis	14.2	2.5	2.4	2.9	0.0	0.0	1.1	4.3	7.2	1.0	3.8	4.5
Hibrix	Nunhems	14.7	1.8	0.0	0.0	0.0	0.0	1.2	0.0	4.3	2.1	4.3	4.6
Infinite Gold	Sakata	13.6	1.1	3.4	3.0	0.0	0.0	1.1	3.5	6.1	1.8	4.3	3.9
Napoli	DP Seeds	13.9	3.4	2.8	3.0	2.4	2.6	1.1	3.0	4.7	1.4	4.6	4.0
NUN 26287	Nunhems	12.0	1.9	3.0	2.8	0.9	1.4	1.1	2.9	4.1	2.5	4.2	4.4
SME 7048	Sakata	13.0	1.0	2.3	2.6	0.0	0.0	1.1	3.5	5.5	2.0	4.9	4.0
Sunny Dee	Nunhems	13.3	3.1	2.3	2.6	0.0	0.0	1.1	3.4	5.5	1.8	4.6	3.9
SV2998MF	Seminis	13.5	1.0	3.1	3.0	0.0	0.0	1.1	3.1	7.3	1.5	4.6	3.6
SV6239MF	Seminis	13.7	1.3	3.4	3.3	0.0	0.0	1.1	3.5	6.9	1.1	3.8	4.0
Tweety	DP Seeds	14.1	2.3	0.0	0.0	0.0	0.0	1.2	0.0	4.6	2.8	3.6	5.0
ESC-14-93	DP Seeds	13.2	1.5	3.1	3.6	1.9	2.4	1.0	3.0	4.9	2.0	4.6	4.5
LM-14-92	DP Seeds	14.1	1.1	2.8	2.4	0.0	0.0	1.1	2.3	5.0	1.9	4.6	4.5
Average		13.6	1.8	2.4	2.5	0.6	0.7	1.1	2.8	5.5	1.9	4.4	4.2
LSD (0.05)		**0.7**	**0.3**	**0.3**	**0.3**	**0.6**	**0.8**	**0.1**	**0.6**	**0.8**	**0.5**	**0.5**	**0.5**

[1] Most measurements were obtained from fruits in harvests 2-6.

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

[3] Sutures: 1 = none, 3=moderate, 5 = deep.

[4] Netting Density: 1=none, 5=dense.

[5] Netting Type: 1 = fine, 5 =thick ropy.

[6] Stem Scar: 1 = small, 3=medium, 5 = large (unattractive).

[7] Stem Splitting: 1= none, 5 = extensive (unmarketable).

[8] LD = Length and diameter ratio, average of 5 melons per replication.

[9] Flesh color: 1 = pale orange, 5 = deep orange.

[10] Flesh Firmness is represented in pounds.

[11] Cavity: 1=small, 2=medium, 3=large

[12] Shape: 1=all fruit are various, 3 = majority are the same, 5 = all fruit same shape.

[13] Foliage cover:
1 = no fruit covered,
5 = all fruit covered (lush).