

2004 ROUND AND PLUM TOMATO TASTE TESTING

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Introduction

The majority of tomatoes grown in New Jersey are round red or plum types. Consumers continue to state that they want a good flavor tomato like the old Rutgers varieties. Many of the newer hybrids were selected for yield and shelf life, but not necessarily flavor. The objective of this taste testing was for consumers to help evaluate new hybrids being considered for release in New Jersey and use this data as one of the evaluative criteria for recommending varieties to growers.

Materials and Methods

One tomato tasting was held in 2004 at the Rutgers Agricultural Research and Extension Center. In a strict evaluative program, it is difficult and expensive to collect a large amount of data. Ripe tomatoes were selected, cut in pieces and placed on paper plates. Each plate was labeled with a number and participants were given data sheets to allow them to evaluate flavor, sweetness, moisture (juiciness), texture, appearance and an overall rating on a 1 (poor)-5 (excellent) scale. The data is summarized in the attached tables 1 and 2.

Results and Discussion

Fourteen round red and seven plum tomato varieties were made available for tasting. Not all participants tasted all varieties thus the data was not analyzed. Data for the round red tomatoes are presented in Table 1. Florida 47 and Sunbrite are the two standard varieties to compare against the other varieties. All varieties were rated at least good for overall characteristics except Amelia, BHN 685, and NC 0256. No variety was better than Florida 47, but NC 042 was equal to Florida 47. Three varieties rated better than Sunbrite - NC 042, NC 0236 and NC 0392.

Data for the plum tomatoes are presented in table 2. Plum Crimson was the standard variety. All varieties rated less than good except H 107 which rated good. Also, all varieties had a higher rating than Plum Crimson except Capaya.

Conclusions

Based on flavor, three North Carolina breeding lines (NC 042, 0236 and 0392) should be considered for additional testing. This information will be combined with data from the yield trials to determine if they should continue to be evaluated.

For fresh market plum tomatoes additional varieties should be evaluated. Even though all varieties except Capaya rated better than the standard, only one had an overall rating as good (H 107).

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NOTES

Table 1. August 2004 Round Red Tomato Taste Panel Results. Rutgers Agricultural Research & Extension Center

Round Red Tomato														
Variety	# Participants	Overall Rating		Flavor		Sweetness		Moisture (juiciness)		Texture		Appearance		Comments
		Total	Mean	Total	Mean	Total	Mean	Total	Mean	Total	Mean	Total	Mean	
Amelia	8	16	2.67	13	1.86	15	2.14	25	3.57	23	3.29	29	4.14	Tastes really bad.
BHN 586	5	15	3.00	8	2.00	9	2.25	13	3.25	13	3.25	18	4.50	
BHN 591	4	13	3.25	9	3.00	8	2.67	13	4.33	11	3.67	13	4.33	
BHN 685	5	10	2.50	13	2.60	14	2.80	11	2.75	12	3.00	10	2.00	
Debut	4	12	3.00	10	2.50	9	2.25	15	3.75	11	2.75	17	4.25	Strange flavor.
Florida 47	5	18	3.60	13	2.60	11	2.20	20	4.40	16	3.20	22	4.40	
Mt. Fresh plus	8	22	3.14	18	2.25	18	2.25	33	4.13	24	3.00	27	2.86	Juicy, not very firm.
NC 042	5	18	3.60	20	4.00	18	3.60	20	4.00	18	3.60	15	3.75	Probably a good shipper, not for fresh market.
NC 0236	3	7	3.50	8	2.67	10	3.33	11	3.67	11	3.67	13	4.33	
NC 0256	4	7	2.33	7	1.75	8	2.00	10	2.50	8	2.00	16	4.00	
NC 0377	4	9	3.00	10	2.5	20	2.5	13	3.25	11	2.75	19	4.75	
NC 0392	5	17	3.40	13	2.60	18	3.60	17	3.40	13	3.25	19	3.80	
Sebring	5	15	3.00	10	2.00	10	2.00	15	3.00	16	3.20	21	4.20	
Sunbrite	6	20	3.33	16	2.67	15	2.50	19	3.80	14	3.50	22	3.67	Sweeter than Mt. Fresh & Better firmness.

Ratings Scale

1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent

Totals/Mean figures are derived by the # of responses from each participant. Some participants did not complete every question on the survey.

Table 2. August 2004 Plum Tomato Taste Panel Results. Rutgers Agricultural Research & Extension Center

Plum Tomato														
Variety	# Participants	Overall Rating		Flavor		Sweetness		Moisture (juiciness)		Texture		Appearance		Comments
		Total	Mean	Total	Mean	Total	Mean	Total	Mean	Total	Mean	Total	Mean	
Capaya	3	5	1.67	3	1.50	2	1.00	8	2.67	8	2.67	8	2.67	
Daiquiri	4	10	2.50	9	2.25	8	2.00	10	2.50	10	2.50	10	2.50	Too hard.
H 107	5	15	3.00	13	2.60	13	2.60	15	3.00	14	2.80	15	3.00	
H 132	5	13	2.60	14	2.80	14	2.80	10	3.33	6	2.00	12	2.40	
Health Kick	5	13	2.60	13	3.25	11	2.75	14	2.80	13	3.25	14	2.80	One of my favorites.
HM 0830	4	10	2.50	9	2.25	9	2.25	10	2.50	12	3.00	8	2.00	Average.
Plum Crimson	3	7	2.33	5	1.67	7	2.33	7	2.33	9	3.00	6	2.00	Unripe taste.

Ratings Scale

1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent

Totals/Mean figures are derived by the # of responses from each participant. Some participants did not complete every question on the survey.