

MELON VARIETY TRIALS IN MAINE

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Melons are a profitable crop for both the retail and wholesale markets. Although the trend in recent years has been away from melons having course netting and deep sutures to the Western type melon, consumers at local farm stands and farmer's markets continue to demand Eastern type melons. In this study, we grew several of the newer melon varieties to evaluate their performance in northern Maine.

Materials and Methods: Ten melon varieties were selected for evaluation in this trial (Table 1), including Athena, Earliqueen, Eclipse, Fastbreak, Minerva, RML 8793, Starfire, Starship, Starsweet and Sugar Bowl. Four plots of each variety were planted in a randomized design and the data from the plots combined for statistical analysis. Plants were started in the greenhouse on May 17, 2002 and transplanted on June 10, 2002 into raised beds covered with black plastic mulch. Each plot contained eight plants planted 18" apart within rows that were spaced six feet apart. Prior to planting, 10-10-10 was incorporated into the soil at a rate equal to 500 lb. per acre. Transplants received 500 ml of 16-32-16 transplanting solution just after planting. The rows were covered with floating row cover and remained covered until flowering began. No supplemental irrigation was provided. Harvest began on August 19, 2002 and continued on a 3 to 4 day schedule until September 12, 2002. Fruit were harvested at the half-slip stage, counted and weighed. Five fruit of each variety were randomly selected and evaluated for brix (sugar content), flesh thickness, flesh color, fruit length and width.

Table 1
Melon Variety Trial, Highmoor Farm, Monmouth, Maine, 2002

VARIETY	BRIX	FRUIT WEIGHT (LBS)	EARLY YIELD /PLOT ^Z (LBS)	TOTAL YIELD /PLOT (LBS)	FRUIT NUMBER/ PLOT	COMMENTS
Athena	11.28	4.03	1.28	77.55	19.25	Slightly oblong, green tint to rind, medium netting, little suture, bland flavor
Earliqueen	11.46	2.79	36.01	60.17	21.50	Oval, deep suture, small cavity, good flavor
Eclipse	11.44	3.83	0.73	72.69	19.00	Variable netting, no suture, great interior color, poor flavor
Fastbreak	9.97	2.64	30.07	64.24	24.25	Round to oval, similar to Earliqueen, soft flesh, good flavor
Minerva	n.a.	4.38	3.98	36.12	8.25	Large and late
RML 8793	10.42	4.51	10.63	60.90	13.50	Large fruit, medium course netting, light suture, large cavity pale flesh
Starfire	10.08	3.17	13.29	67.10	20.40	Fair suture, course net, soft flesh, musky, good flavor
Starship	11.38	2.90	7.08	66.09	22.75	Similar to Starfire, not as sutured, good flesh color, good flavor
Starsweet	11.33	3.15	0.00	81.95	26.00	Attractive shape, deep suture, course net, soft flesh, bland
Sugar Bowl	12.78	2.64	4.27	54.69	20.75	Slightly oblong, deep suture, great flavor and flesh color, small cavity.
LSD ^Y		0.77	13.95	27.04	7.58	

^Z Each plot contained eight plants planted 18" apart within rows that were six feet apart. Plants were started in the greenhouse on May 17, 2002 and transplanted into beds covered with black plastic mulch. Each variety was replicated four times in a randomized complete block. ^Y Numbers within columns with differences greater than the LSD value are significantly different (95% confidence level).

Results: Most of the varieties performed well under very hot and dry conditions that characterized the 2002 growing season in Maine. The one exception was Minerva, which had very low yields and may be too late for the short growing season in Maine. Earliqueen and Fastbreak were the earliest of the varieties evaluated and share many of the same characteristics: small size, deep suture, fairly course net and good flavor. Perhaps the greatest drawback of these two varieties is the relative speed with which they pick-out. These are truly, first-early melons and need to be sequentially planted or followed with a main season variety. Starfire was the next earliest melon in our trial and was in the middle of the range for total yield. The fruit quality was very good with a pleasant musky scent and good flavor. Starship was similar to Starfire. Starsweet was one of the most attractive melons in this trial. It had good fruit size and the greatest yield in the trial. However, the flesh was soft and the flavor bland. Athena, Minerva, Eclipse and RML 8793 are best classified as Eastern shipper type melons and, in general, lack the suture or musky aroma of a true muskmelon. Athena was uniform with high yields and good fruit quality. RML 8793 had the largest fruit size of any variety in our trial. In fact, RML 8793 may be too large for many roadside markets. Eclipse was the most variable variety in this trial. There was a vast range in the degree of netting on the fruits of this variety. Although the flesh color was deep orange, the flavor in this trial was poor. Sugar Bowl was judged to have the best overall fruit quality but, the fruit size was small and total yields were average.

Conclusions: Based on this study, there are several new melon varieties available that offer good fruit quality and high production for local retail and wholesale markets. Earliqueen and Fastbreak are good choices for the early market while the Star series and Sugar Bowl are excellent choices as main season varieties. Crop performance will vary depending on local growing conditions, season, and crop management. Always test new varieties on your farm in small trials and compare them to your current favorite. I would like to thank all the seed companies that provided seed for this trial, including Harris Seeds, Johnny's Selected Seeds, Seedway and Seigers Seeds.