

Personal Sized Seedless Watermelon Cultivar Trials for Southwestern Indiana, 2004

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Personal size, individual serving, pocket sized, mini, palm or baby watermelon, regardless of what you call them these small seedless watermelons are growing in popularity. Ideally these melons weigh in at 3-7 pounds. This trial, along with the seeded (diploid) watermelon and seedless (triploid) variety trial provides an objective and independent comparative assessment of new watermelons for the commercial industry. This year's study included 15 small seedless watermelons, including one yellow fleshed variety.

Methods:

Seeds of 15 seedless watermelon cultivars were sown in the greenhouse on April 13 and transplanted on May 10 into a randomized complete block design with three replications. Royal Sweet was used as the pollinator and planted in every third row and in the guard rows. Plots were single rows 32 ft. long, centered 6 ft. apart, and covered with 4 ft. black plastic mulch. Each plot had 16 plants two feet apart within the row. The recommendations in the Midwest Vegetable Production Guide for Commercial Growers (ID-56, 2004) were followed for fertilization, weed, disease and insect control. Trickle irrigation was used as necessary to provide ample water to the field plots. Plots were harvested on July 20, 27, August 3, and 9. The data were analyzed using the Statistical Analysis Software (SAS) package (SAS Institute, Cary, NC).

Results and Conclusions:

Yields and Quality. Yields ranged from 14.5 to 39.7 tons/acre with 1178 to 2198 fruit/acre harvested across all entries (Table 1). The average weight of seedless fruit was 6.3 lbs/fruit with a range of 4.9 to 9.1 lbs/fruit. Smaller weight per fruit led to the higher number of fruit per acre in general. Highest yielding cultivars in this trial were: Mini Yellow, Poquito, HA 5130, RWT 8162, and Extazy. Most of the fruit in the trial this year were round and small sized. Notable melon varieties exhibiting high soluble solids include RWT 8162, RWT 8155, Bonny, Petite Perfection, and RWT 8149. Mini Yellow and Poquito each had one melon with a cracked heart in our evaluation group. The best tasting melons in this trial were Petite Perfection, Bonny, Betsy, and RWT 8155. Personal sized watermelons are lower yielding than traditional seedless melons and thus will require new pricing demands and marketing structures. However, they may fit into your overall marketing plans and may be a welcome new addition to your customers. Care should be taken with these varieties until you have a firm grasp on the market demand and consumer preference.

Table 1. Comparison of Yield and Quality of Personal Size Seedless Watermelon in Southwestern Indiana, 2004.

Cultivar	Seed Source	Yield Cwt.Lb/A	Yield ^r Tons/A	Fruit No./A	Ave fruit weight		%SS ^s	Flavor ^t	Uniformity ^u	Rind ^v	Size ^w	Shape ^x	Flesh ^y	Degree of Seedlessness ^z
					Lbs									
Mini Yellow	DP	794.6	39.7 a	1951	8.1	8.0	3	2	1	S-M	R	Y	2	
Poquito	DP	666.1	33.0 ab	2198	9.1	9.4	2	2	2	M	R	R	3	
HA 5130	HA	645.5	32.3 abc	1665	6.9	8.0	3	1	3	M-L	Ov-Ob	DP	2	
RWT 8162	RG	577.0	28.9 abcd	1178	4.9	13.0	3	2	2	S-M	R	R	3	
Extazy	RU	574.7	28.7 abcd	1744	7.2	9.4	3	2	2	S	R	DP	3	
Valdoria	SU	560.7	28.0 abcd	1671	6.9	9.6	2	2	1	VS	R	DR	3	
RWT 8149	RG	554.0	27.7 abcd	1616	6.7	11.0	3	3	1	M	R	R	2	
Bobbie	SU	489.4	24.5 bcd	1743	7.2	11.6	4	2	2	S-M	R	R	3	
Petite Perfection	RG	457.8	22.9 bcd	1558	6.4	11.5	5	3	1	S-M	R	R	2	
Vanessa	SU	453.2	22.6 bcd	1374	5.7	9.2	2	3	2	S	R	DP	3	
RWT 8154	RG	397.7	19.9 bcd	1320	5.5	10.0	3	3	1	S	R	R	3	
Precious Petite	RG	362.0	18.1 cd	1379	5.7	10.4	5	3	1	S	R	R	3	
HA 5109	HA	319.0	15.9 d	1404	5.8	10.8	3	2	3	S	R	R	2	
Betsy	SU	300.7	15.0 d	1518	6.3	9.8	4	3	2	S-M	R	LP	2	
RWT 8155	RG	290.4	14.5 d	1249	5.2	11.8	4	1	1	S	Ob	R	3	
Grand mean		476.4	23.8	1528	6.3									
LSD (5%)		304.0	15.2	382	1.6									
C.V. (%)		37.6	37.6	15	14.8									

Randomized complete block design: 3 replications.

^r Yield wt. (tons) averages spanned by the same letter are not significantly different.

^s %SS = Percent soluble solids: the higher the value, the greater the amount of total sugar.

^t Flavor (1 to 5): 1=very poor, 3=acceptable, 5=great.

^u Uniformity (1 to 3): 1=lacks uniformity/variable, 2=average, 3=very uniform.

^v Rind: T=thin, M=medium, Th=thick.

^w Size: VS=very small, S=small, M=medium, L=large, VL=very large.

^x Shape: Rd=round, Ov=oval, Ob=oblong.

^y Flesh: LR=light red, RO=red-orange, R=red, LP=light pink, P=pink, DP=dark pink, Y=yellow.

^z Degree of Seedlessness (1 to 3): 1=brown of black seeds present, 2=white seeds present, 3=no seeds present.