

Personal Sized Seedless Watermelon Cultivar Trials for Southwestern Indiana, 2005

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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 4 seedless watermelon cultivars were sown in the greenhouse on April 19 and transplanted on May 13 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 two single rows 30 ft. long, centered 6 ft. apart, and covered with 4 ft. black plastic mulch. Each plot had 30 plants two feet apart within the row. The recommendations in the Midwest Vegetable Production Guide for Commercial Growers (ID-56, 2005) 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 19, 25, August 10, and 17. The data were analyzed using the Statistical Analysis Software (SAS) package (SAS Institute, Cary, NC).

Results and Conclusions:

Yields and Quality. Yields ranged from 38.5 to 49.3 tons/acre with 10890 to 13471 fruit/acre harvested across all entries (Table 1). The average weight of seedless fruit was 7.3 lbs/fruit with a range of 7.3 to 8.0 lbs/fruit. Highest yielding cultivars in this trial were: RWT 8149 and Petite Perfection. Most of the fruit in the trial this year were round and 6 pounds or larger. The melons with the highest soluble solids content were RWT 8149 and Bibo. The best tasting melons in this trial were Petite Perfection and Bibo.

Personal sized watermelons 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 of Personal Size Seedless Watermelon in Southwestern Indiana, 2005.

Cultivar	Seed	Yield	Yield ^z		Fruit	Average	< 4lb	4-6lb	6-10lb	>10lb
	Source	Cwt/Acre	Tons/Acre		No./Acre	Fruit Weight				
RWT 8149	RG	985.6	49.3	a	13471	7.3	4.7	22.0	76.3	8.3
Petite Perfection	RG	868.0	43.4	ab	10890	8.0	3.0	16.0	59.3	13.7
Precious Petite	RG	818.2	40.9	ab	11051	7.4	3.0	18.3	62.7	7.3
Bibo	RG	770.6	38.5	b	11697	6.6	3.0	30.0	62.3	1.3
Grand Mean		860.6	43.0		11777	7.3				
L.S.D (5%)		212.7	10.6		2278	0.5				
C.V. (%)		13.1	13.1		10	4.0				

Randomized complete block design: 3 replications.

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

Table 2. Comparison of Quality of Personal Size Seedless Watermelon in Southwestern Indiana, 2005.

Cultivar	Seed	%SS ^z	Pressure ^y	Flavor ^x	Length ^w	Width ^v	Ratio ^u	Shape ^t	Flesh ^s	Degree of
	Source									Seedlessness ^r
RWT 8149	RG	14.0	0.5	3	6.5	6.0	1.1	Rd	R	2
Petite Perfection	RG	13.0	0.9	4	6.0	6.0	1.0	Rd	R	3
Precious Petite	RG	10.0	1.0	3	6.5	6.0	1.1	Rd	R	2
Bibo	RG	14.0	1.8	4	7.5	6.5	1.2	Rd-Ov	R	2

Randomized complete block design: 3 replications.

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

^y Pressure: Pressure test reading in pounds per square inch

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

^w Length: Length of fruit from stem attachment end to blossom end (in)

^v Width: Width of fruit as measured following a longitudinal cut from stem end to blossom end (in)

^u Ratio: Length divided by the width of the fruit

^t Shape: Rd=Round, Ov=Oval, Ob=Oblong.

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

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