

2022

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Solid-Green Watermelon Cultivar Comparison

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Watermelon fruit varies in size, shape, rind pattern, and flesh color. The most commonly grown triploid watermelons are blocky shaped and with striped rind patterns. Fruit weight in the range of 14-18 lbs (45 count) is preferred in the mainstream market. Watermelon fruit with diverse characteristics is gaining attention in local food markets. These include cultivars having unique rind patterns and different flesh colors. In this report, we summarize the performances of seedless watermelon cultivars that have a solid green rind pattern in Indiana.

Eight watermelon cultivars with solid-green rind patterns were compared in this report. Seed source and fruit characteristics are listed in Table 1 and Figure 1. Watermelon production practices were described in *2022 Standard-size Triploid Watermelon Cultivar Evaluation in Indiana*.

Cultivars Blackjack, Dark Knight, Eclipse, Style and Sweet Gem have a solid dark green rind pattern; Wayfarer, 3F93-2487, 3F-4533 have a lighter green rind pattern (Figure 1). 3F93-2487 had the greatest yield among the cultivars (Table 2). Comparing cultivars with dark green rinds, Sweet Gem had a significantly higher yield than Eclipse, and similar to yields of Dark Knight, Blackjack and Style. Blackjack had larger fruit than Eclipse, Style, Sweet Gem, Wayfarer and 3F93-2487, and it was similar to the average fruit weights of Dark Knight and 3F-4533 (Table 3). Eclipse had the smallest fruit among all the cultivars. Style, Sweet Gem and Dark Knight had the highest soluble solids content while Blackjack had the lowest soluble solids. Flesh firmness was similar among the cultivars except for Wayfarer which had significantly firmer flesh than the other cultivars.

Table 1. Cultivar name, seed source, and fruit characteristics of solid-green watermelon cultivars evaluated in 2022 in Vincennes, IN.

Cultivar	Seed source	Rind Pattern	Flesh color
Blackjack	Seedway	Solid dark green	Red
Dark Knight	Syngenta	Solid dark green	Red
Eclipse	Sakata	Solid dark green	Red
Style	BASF	Solid dark green	Red
Sweet Gem	Syngenta	Solid dark green	Red
Wayfarer	Harris Moran	Solid green	Red
3F93-2487	Known you	Solid green	Red
3F-4533	Known you	Solid green	Yellow

Table 2. Marketable and total yields of solid-green watermelon cultivars in 2022 watermelon evaluation at Southwest Purdue Agricultural Center in Vincennes, IN.

Cultivar	Marketable Yield		Total Yield	
	No/acre	lbs/acre	No/acre	lbs/acre
Blackjack	1679 b	25323 bcd	1860 b	28074 b
Dark Knight	1815 b	26475 bc	1860 b	27090 bc
Eclipse	1633 b	18124 d	1724 b	19047 d
Style	1906 b	22839 bcd	1951 b	23350 bcd
Sweet Gem	2042 ab	27458 b	2042 b	27458 b
Wayfarer	1769 b	19969 cd	1815 b	20280 cd
3F93-2487	2722 a ^z	35926 a	2722 a	35926 a
3F-4533	1996 b	27969 b	2087 ab	29267 ab

^z Means within a column followed by the same letter do not differ significantly at $P < .05$.

Table 3. Average fruit weight and fruit quality parameters of solid-green watermelon cultivars in the 2022 watermelon trial at Southwest Purdue Agricultural Center in Vincennes, IN.

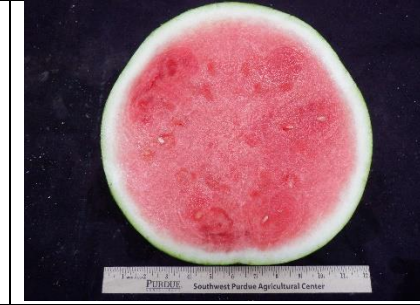
Cultivar	Average fruit weight	Length (cm)	Width (cm)	Rind thickness (cm)	Soluble solids content (Brix)	Firmness (lbs-force)
Blackjack	15.13 a ^z	25.40 ab	22.56 bc	1.26 abc	9.31 e	2.33 b
Dark Knight	14.70 ab	24.06 cd	23.94 a	1.34 ab	10.07 abc	2.58 b
Eclipse	11.21 d	21.77 f	21.66 c	1.23 bc	9.93 bcd	2.17 b
Style	12.01 cd	22.90 def	21.88 c	1.30 abc	10.50 a	2.26 b
Sweet Gem	13.40 bc	23.11 de	22.69 bc	1.45 a	10.42 ab	2.29 b
Wayfarer	11.39 d	22.16 ef	21.64 c	1.26 abc	9.71 cde	3.31 a
3F93-2487	13.39 bc	25.94 a	22.42 bc	1.38 ab	9.47 de	2.50 b
3F-4533	14.10 ab	24.47 bc	22.97 ab	1.12 c	9.69 cde	2.56 b

^z Means within a column followed by the same letter do not differ significantly at $P < .05$.

Blackjack



Dark Knight



Eclipse



Style





Figure 1. Exterior and interior of standard-sized, seedless, solid-green rind watermelon in the 2022 watermelon trial in Vincennes, IN.