

2021 Fall Cauliflower Trial in Georgetown, Delaware

Varieties were seeded on **July 16**, 2021 into 128-cell plug trays. Plants were transplanted to the field on August 5. Plots were 24 ft long with plants spaced at 2 ft in the row and rows 2.5 ft apart. Twelve plants were planted per plot and the center ten plants were considered the record plants (end plants were not harvested). Plots were arranged in a randomized complete block design with four replications.

The trial was harvested on Oct 25, Oct 28, Nov 1, Nov 8, Nov 19 and Dec 22. Individual heads were weighed and head diameter, head height and stem diameter measured. Heads were graded based on size (less than 10 centimeter diameter unmarketable) and quality defects (excessively discolored, ricey, fuzzy and knuckled heads considered unmarketable).

2021 Delaware Cauliflower Trial: Head weight, diameter and height and stem diameter for all harvested heads

Variety	Avg Wt (g)	Head Diameter (cm)	Head Height (cm)	Stem Diameter (cm)
Twister	1008 a	15.0 a	10.6 a	3.1 cd
B-3277	910 ab	14.6 a	11.0 a	2.9 de
Toledo	887 abc	14.8 a	10.4 a	3.6 a
Adona	850 bc	14.7 a	10.7 a	2.9 e
Caniego	839 bc	15.2 a	10.6 a	2.9 de
Flamenco	837 bc	15.7 a	10.8 a	3.2 bc
Skywalker	815 bc	15.0 a	10.5 a	3.2 bc
Alcala	812 bc	14.8 a	10.8 a	3.1 cd
Bermeo	766 c	15.0 a	9.7 b	3.3 b
<i>p-value</i>	<i>0.0256</i>	<i>0.6065</i>	<i>0.0214</i>	<i><0.0001</i>
C.V.	33.3	14.5	13.5	12.9
LSD	139	NA	0.69	0.20

2021 Delaware Cauliflower Trial: Head weight, diameter and height and stem diameter for marketable heads

Variety	Avg Wt (g)	Head Diameter (cm)	Head Height (cm)	Stem Diameter (cm)
Twister	1060 a	15.4 abc	10.8 bc	3.1 cd
Skywalker	1005 abc	16.0 ab	11.4 ab	3.5 ab
Adona	922 abc	14.8 bc	11.8 a	2.9 d
Flamenco	920 abc	16.3 a	11.4 ab	3.3 bc
Toledo	920 abc	15.0 bc	10.4 cd	3.6 a
B-3277	880 abc	14.4 c	11.2 abc	3.1 cd
Caniego	872 bc	15.4 abc	10.7 bc	3.0 d
Alcala	846 bc	14.7 bc	10.9 bc	3.1 cd
Bermeo	781 c	15.2 abc	9.8 d	3.3 abc
<i>p-value</i>	<i>0.0239</i>	<i>0.0341</i>	<i><0.0001</i>	<i><0.0001</i>
C.V.	29.4	12.3	11.7	12.8
LSD	187	1.32	0.89	0.29

2021 Delaware Cauliflower Trial Total and Marketable Yield, Percent Marketable and Observed Physiological Defects

Variety	Total Yield (lbs/acre)	Marketable Yield (lbs/acre)	% Marketable	Defects Observed
Twister	18,868 a	15,780 a	81.0	fuzziness, purpling
Caniego	13,703 b	12,555 a	91.3	slight fuzziness
Bermeo	12,133 b	12,004 a	98.8	none
Flamenco	15,273 ab	11,480 a	71.0	fuzziness
Toledo	12,771 b	11,480 a	89.5	slight fuzziness, yellowing
Alcala	13,263 b	10,153 ab	72.3	ricing, purpling
Skywalker	13,306 b	4,829 bc	31.0	leafy, freeze damage
B-3277	12,678 b	4,648 bc	34.0	black spots, freeze damage
Adona	11,427 b	2,654 c	23.0	leafy, freeze damage
<i>p-value</i>	0.0300	0.0013	0.0001	
C.V.	19.733	42.25	33.63	
LSD	3949	5863	32.27	

2021 Delaware Cauliflower Trial Percent Harvested on Each Harvest Date

Variety	Date and Days After Transplant					
	25-Oct	28-Oct	1-Nov	8-Nov	19-Nov	22-Dec
	81	84	88	95	106	139
Bermeo	98%					2%
Flamenco		92%	2%	1%	3%	2%
Caniego		19%	75%	6%		
Alcala		40%	49%	4%	6%	
Twister			77%	6%	17%	
Toledo			5%	26%	56%	13%
Skywalker					35%	65%
B-3277				5%	22%	74%
Adona					27%	73%

Discussion

Twister produce the highest total weight and had a significantly higher total yield than all other varieties. Marketable yield was more variable and statistical separations between varieties were not as discrete. Earlier maturing varieties, Bermeo, Flamenco, Caniego, Alcala and Twister had higher marketable yields. Later varieties are at risk of freeze damage before reaching maturity when transplanted in early August. Bermeo, as in past trials, produced a high percentage of marketable heads without physiological defects.

Photos of the varieties follow. There were variety differences in the level of leaf cover for heads and the self-blanching characteristic.

Thank you to Bejo Seeds and Sakata Seeds for participating in the trial and providing seed.

Cauliflower Varieties in the Delaware 2021 Fall Cauliflower Trial



Twister



Caniego



Bermeo



Flamenco



Toleado



Alcala



Skywalker



B-3277



Adona



Cauliflower Trial on November 1, 2021 (88 days after transplant).

Cauliflower plants in the 2021 trial showing variety differences head cover by leaves.



Twister



Caniego



Bermeo



Flamenco



Alcala



Skywalker