

2019 & 2021 LARIMER COUNTY MASTER GARDENER TOMATO TRIALS



LARIMER COUNTY
COLORADO STATE UNIVERSITY
EXTENSION

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Purpose of the study:

Tomatoes are one of the most popular garden vegetables. One question often asked is “what tomato varieties do best in northern Colorado?” To answer this question, members of the CSU Extension Master Gardener program in Larimer County, in cooperation with the CSU Specialty Crops program, conducted a trial with 12 tomato varieties in 2019 and 2021.



Materials and Methods:

Hybrid and open pollinated tomato varieties were included, along with determinate (bush) and indeterminate growth habits. The trial design for both years were replicated and randomized. Tomatoes were grown in the greenhouse and transplanted on June 5, 2019, and June 10, 2021 at the CSU ARDEC-South research farm. Tomatoes in 2019 were planted into ground beds covered with black plastic and irrigated with drip irrigation. Tomatoes in 2021 were planted into ground beds without black plastic and irrigated via furrow irrigation. Harvesting was done as needed as individual varieties ripened.

Results:

By comparing the tables, some varieties were consistent year to year, despite differing temperatures, growing season length, and weather events (hail). Overall, the trial results offer the home gardener valuable information to help determine what varieties to grow in northern Colorado.

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2019 & 2021 CMG Tomato Trial Results

Table 1: New Girl was the earliest maturing variety and had the highest fruit yield for 2019 and 2021. While fruit size for this variety is small, those looking for high yields and large fruit may want to consider Carbon and/or Big Beef.

	Maturity*	Maturity*	Yield - lbs.	Yield - lbs.	Ave. Frt. Size - oz.	Ave. Frt. Size - oz.
Variety	2019	2021	2019	2021	2019	2021
Polbig		2	45.1	52.2	3.7	3.1
Valley Girl		2	40.89	67.1	2.5	2.9
Celebrity		3	53	69.1	4.6	4
Early Girl		2	52.8	64.9	2.3	2.9
New Girl	1	1	82.9	92.8	2.3	2.3
Moskvich		3	17.3	55.3	1.6	2.6
Carbon		3	61.4	71.3**	5.9	5.9
Chef's Choice Black		3	42	91	4.4	5.2
Big Beef		2	76.8	84.4	4.6	3.9
Mtn. Fresh Plus			37.2	0	4.9	0
Mtn. Merit			22.7	0	4.7	0
Mtn. Rouge			18.7	0	3.4	0
Galahad		2	0	49	0	2.7
Defiant		2	0	68.6	0	2.4
Damsel		3	0	54.9	0	3.4
* Maturity for 2019: 1 = first variety harvested						
*Maturity for 2021: 1 = first variety harvested while 3 = later maturing varieties						
** Carbon 2021: Yield/Fruit Size for 2 reps only (3rd rep lost)						

Table 1. Maturity, Yield, and Fruit Size

Table 2. Flavor

	Texture	Texture	Sweetness	Sweetness	Overall Flavor	Overall Flavor
Variety	2019	2021	2019	2021	2019	2021
Polbig	3.5	2.9	2.6	1.6	2.9	2.3
Valley Girl	2	2.5	2.1	1.7	2	2.4
Celebrity	3.4	2.6	2.3	1.8	3.1	2.6
Early Girl	3	2.9	2.2	3	2.5	3.2
New Girl	3.6	3.1	2.8	3.1	3.2	3.4
Moskvich	2.8	2.4	2.7	2.7	2.8	3.1
Carbon	2.6	2.7	2.9	2	2.7	2.7
Chef's Choice Black	2.7	2.5	3.2	2.4	3.2	2.8
Big Beef	2.8	2.8	2.2	2	2.7	2.9
Mtn. Fresh Plus	0		0		0	
Mtn. Merit	2.9		2.2		2.2	
Mtn. Rouge	3.2		2.8		2.7	
Galahad		3		2.4		2.8
Defiant		2.2		1.5		2.3
Damsel		2.8		3		3.2

Table 2: New Girl had the best overall flavor for 2019 and 2021. Others to consider are Early Girl, Chef's Choice Black, and Moskvich, which had higher overall flavor ratings.

