

2019 Tomato Variety Trial Results

Takeaways

Early Girl, Dirty Girl, and Goldie were the highest yielders under dry farmed conditions with the latter two having minimal blossom end rot/splitting (6.0 % and 16.5 % of marketable yield, respectively) Three times as many respondents rated dry-farmed Early Girl tomatoes as very sweet in comparison to the irrigated control, and 1.6 times as many respondents rated dry farmed Dirty Girl tomatoes as very sweet in comparison to the irrigated control. Overall, dry-farmed tomatoes had 58% of the yield of irrigated tomatoes.

Site description

Tomatoes were grown at the Oak Creek Center for Urban Agriculture where the soil type is a Woodburn silt loam. This site has had generous additions of compost and leaf mould added over the last four years.

Soil Preparation

A mixed cover crop of rye (10#/acre) and crimson clover (5#/acre) was sown the previous winter and Calpril lime was broadcast at one ton per acre. Tomato transplants were seeded in the greenhouse on April 1st. On April 15th, the cover crop was mowed, and on April 29th the plots were tilled. On May 22nd the tomatoes were transplanted 4' apart in-row with 5' between rows. Plants were neither trellised nor pruned. Plants were cultivated by hand using a wheel and hand hoe. Each irrigated plant was given one gallon of water per week.

Varieties Tried

Code	Variety	Description	# of Plants	Average Yield (lbs per plant)		Source
				Dry	Irrigated	
EG	Early Girl	Early, indeterminate, hybrid producer of small/medium-sized, round red slicers	5	8.3	23.5	Johnny's
DG	Dirty Girl	Mid-season, indeterminate OP producer of small/medium round red slicers	5	12.4	16.8	Dirty Girl Produce
GL	Great Lakes	Mid-season, indeterminate OP producer of medium beaked red slicers	5	8.0	21.5	Seed Revolution Now
GO	Goldie	Early, indeterminate OP producer of yellow/orange cherry tomatoes	5	12.6	12.6	Seed Revolution Now
AP	Amish Paste	Late, indeterminate OP producer of large, red oxheart paste tomatoes	1	5.6	8.2	Prairie Road Organics
CA	Canestrino di Lucca	Late, indeterminate OP producer of large, red, pleated paste tomatoes	1	6.0		Hudson Valley Seed
BC	Brandywine Cherry	Early, determinate OP producer of pink/purple cherry tomatoes	1	3.8	10.1	Seed Revolution Now
CS	Crimson Sprinter	Early, indeterminate OP producer of medium round red slicers	1	7.0	18.0	Prairie Road Organics
OS	Oregon Spring	Early, determinate OP producer of medium round red slicers	1	5.8	8.8	Prairie Road Organics

Discussion

Blossom End Rot

All of our varieties, *except for Dirty Girl and Goldie*, had significant problems with blossom end rot (BER) under dry farmed conditions, especially when the rains returned in September. However, Early Girl was able to set generous sets of blemish-free fruit prior to this, balancing the BER that happened later. Dirty Girl was two to three weeks later than Early Girl, but produced well into October with little BER. Growers might want to consider growing these two varieties together to guarantee steady production.

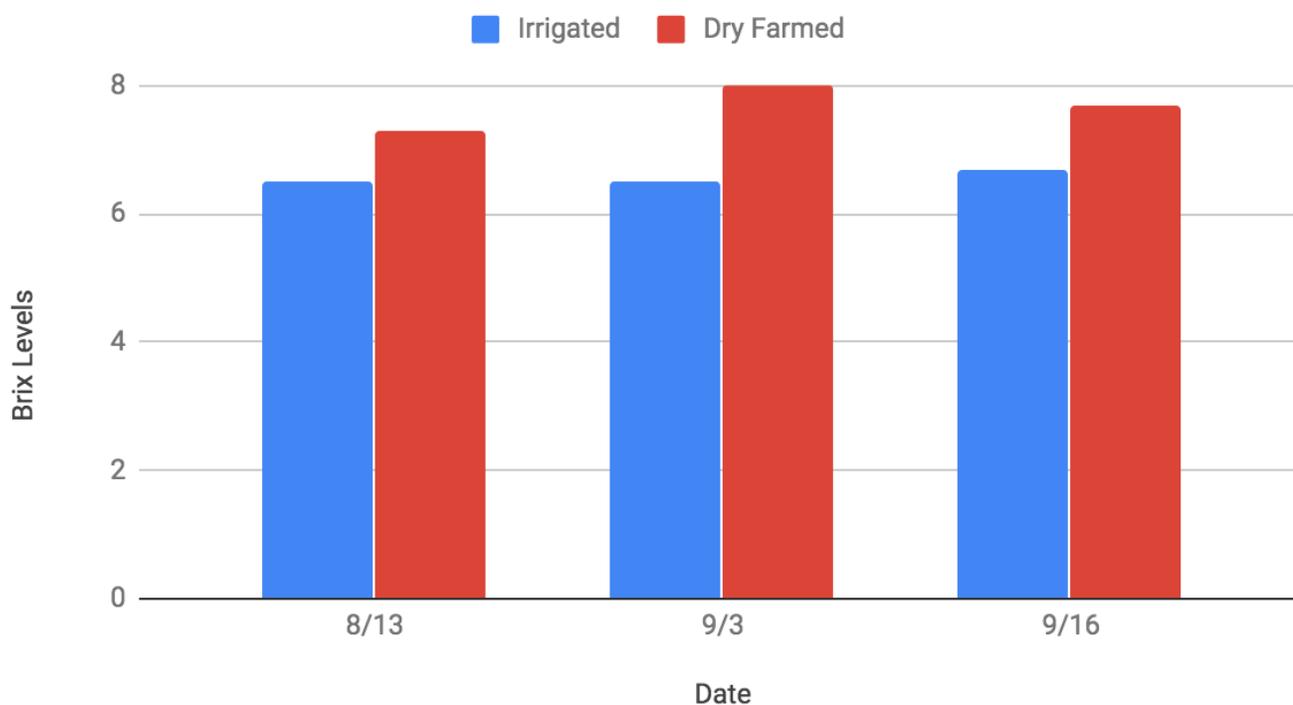
Our paste tomatoes, Canestrino and Amish Paste, were very late this year and prone to BER and cracking. Of the cherry tomatoes tested, Goldie was the clear winner in production and held up well even once the rains returned. Brandywine cherry was a shy producer and prone to splitting. Oregon Spring was incredibly early and did not have noteworthy problems with BER, but the yields were very modest for these determinate plants.

Sensory Evaluations

Brix readings measure sugar levels in fruits. Brix levels were on average 17% higher in dry farmed Early Girl tomatoes compared to the irrigated control.

At the Oak Creek field day, 3 times as many respondents rated dry farmed Early Girl tomatoes as very sweet (26/41) compared to the irrigated control (8/38). For the Dirty Girl variety, 1.5 times as many respondents rated dry-farmed tomatoes as very sweet (10/18) compared to the irrigated control (7/18).

Brix Sugar Levels of Early Girl Tomatoes



Yield Data

