

Organic Tomato Cultivar Evaluations

2005, Lane Agricultural Center, Lane, Oklahoma

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Eighteen cultivars of tomato were grown in 2005 at the Lane Agricultural Center in Lane, Oklahoma. All practices used in the study were according to the guidelines of the National Organic Program. Poultry litter was applied in the fall of 2004. Crimson clover and turnips were used in combination as a cover crop during the 2004-2005 winter. Poultry litter was again added in the spring of 2005, prior to planting the tomatoes. Tomatoes were planted on May 9, 2005. There were four replications of each cultivar. Rows were 9 feet apart and plants were 1.5 feet apart within the row. Tomatoes were staked by either the stake and weave system (for determinates) or over-head single-wire trellis (for indeterminates). Tomatoes were harvested on July 11, July 19, July 27, August 1, and August 8. Tomatoes were graded as either marketable fruit or cull fruit. Culls were categorized as being rejected because of blossom end rot (BER), insect damage, or pathogenic disease damage.

Results are listed in the table below. "Mrktable tons/acre" is the marketable weight in tons per acre for the entire season. "Mrktable fruit/plant" is the number of marketable fruit per plant. "BER" is the number of fruit per plant that were showing symptoms of blossom end rot. "Insect" is the number of fruit per plant that showed evidence of insect damage. "Disease" is the number of fruit per plant that showed evidence of disease. "Fruit wt" is the average weight of each individual fruit, in pounds.

This is the second year of this study. Yields were generally higher this year than they were in 2004. The summer of 2005 was much drier than was 2004, which caused fewer problems with foliar diseases in 2005 than in the previous year. Major damage was caused by vegetable weevils just after the tomatoes were planted. All plants were destroyed by the weevils within 5 days after planting. The tomatoes were replanted on May 9. The results listed here are from the second planting.

Cultivar	Seed source	Mrktable tons/acre	fruit/plant				Fruit wt (lbs)
			Mrktable	BER	Insect	Disease	
Sunny	Tomato Growers Supply	14.9	23	2	3	4	0.37
Solar Set	Tomato Growers Supply	13.7	20	1	2	3	0.44
Classica	Totally Tomato	13.6	45	2	4	7	0.26
Sun Leaper	Tomato Growers Supply	11.4	16	1	3	3	0.45
Mountain Fresh	DeWitt Seed	11.2	16	1	2	4	0.39
Florida 91	Tomato Growers Supply	10.9	14	1	3	2	0.48
Florida 47	DeWitt Seed	10.6	17	1	9	3	0.41
BNH-444	Johnny Seeds	10.2	14	1	5	7	0.45
Amelia	DeWitt Seed	10.2	14	1	2	3	0.47
Celebrity	DeWitt Seed	9.5	14	0	2	7	0.42
Mountain Spring	DeWitt Seed	9.1	16	0	2	3	0.38
Sun Master	Tomato Growers Supply	8.9	15	1	2	6	0.40
Mountain Delight	DeWitt Seed	6.7	10	1	2	4	0.40
Peron	Tomato Growers Supply	6.5	12	1	1	3	0.33
Champion	Tomato Growers Supply	3.0	6	5	2	4	0.36
Amana Orange	Peaceful Valley Farm Supply	2.8	3	1	1	1	0.71
Snow White	Tomato Growers Supply	2.7	36	2	2	4	0.04
Sioux	Tomato Growers Supply	1.6	3	2	0	5	0.38