

LSU AgCenter 2018 Cherry Tomato Variety Trial Results

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Introduction

Cherry tomatoes are increasing in popularity in grocery stores and farmers markets. Their small size makes them easy to prepare in many dishes. They are generally packaged in clear plastic containers. The clear packaging allows consumers to easily handle this small sized fruit and visualize the color. Once only found in specialty stores, various colors (orange, maroon, white, and pink) cherry tomatoes are now making their way in specialty packaging into main stream stores known more for price than quality. The mixed colors demand higher prices at the store and consumers appreciate the neatly packed storage containers.

Labor is one of the largest input costs when planting cherry tomatoes. The majority of cherry tomatoes are also indeterminate making them more labor intensive to stake and trellis. The smaller sized tomatoes can withstand our hot humid climate better than larger sized varieties, usually resulting in less fruit rot.

In this particular 2018 trial, disease incidence was less severe in the cherry tomatoes compared to the larger tomato variety trial planted in the same field. The larger tomatoes were planted about a month earlier. Cherry tomato plants are heavy yielders. One or two cherry tomato plants will produce enough tomatoes for a family of four. Cherry tomatoes are a valuable crop for both commercial producers and hobby gardeners. The price of cherry tomatoes in the spring of 2018 ranged between (\$1.00-\$6.00- various prices collected in grocery stores in major cities including Alexandria, Baton Rouge, Hammond, Lafayette, and Shreveport) depending on color, amount and packaging.

Materials and Methods

In the spring of 2018 fourteen varieties of cherry tomatoes 4 yellow ('Orange Zinger', 'Odat', 'Response' and 'Sunrise Sauce'), 3 maroon/ brown ('Chocolate Sprinkles', 'Espresso', and "Midnight Snack') and 7 red ('Kali', Mandat', 'Tastier', Gallant', 'Eider, '122-317', 'Mai Tai') were trialed. Each tomato variety was planted in blocks of 10 plants. 3 blocks per variety were planted at 2 locations: the LSU AgCenter Botanical Gardens in Baton Rouge, LA and Bon Vivant Produce in Wilson, LA. Tomato seeds were planted into 50 count cell trays on March 6, 2018. Trays were kept on heat mats set at 85°F for 72 hours then the heat mats were turned off and removed. Tomatoes were fertilized weekly with Peter's 20-20-20 at a rate of 200ppm N, after the first true leaf had developed. Trays were removed from the greenhouse one week prior to transplant to harden off. Tomatoes were transplanted in Wilson, LA on April 11, 2018 and in Baton Rouge, LA on April 12, 2018. Tomatoes were planted on hipped up rows covered with silver plastic mulch with drip irrigation installed under the mulch. Pre plant fertilizer was incorporated at 600lbs. of 13-13-

13/acre. Tomatoes were spaced on 18 inch centers and planted single file. Fertigation began at first flower set and continued weekly through harvest alternating calcium nitrate and potassium nitrate. Insecticides and fungicides were applied as needed using recommendations in the 2018 Southeastern Vegetable Crop Handbook.

The 14 varieties were evaluated for foliage density, fruit quality, fruit color and flavor. Ratings were collected from both locations beginning in mid-June. Total harvest, marketable and cull data were not collected for this trial as the objective was to determine a cherry tomato that had nice color and great taste. The participating farm exclusively sells produce to the New Orleans restaurant market seeking high quality, flavor dense vegetables. These are the same qualities most home gardeners seek.

Thanks is expressed to two seed companies who donated seed for this trial Jenny Seeds based in Florida and Moravo Seed based in the Czech Republic.

Results

The top ranking cherry tomato from each of the 3 colors trialed (red, orange, and brown/maroon) are as follows:

Red – ‘Mai Tai’. Mai Tai was an attractive fruit inside and out. The color was cherry red, the foliage was dense and the fruit firm.

Orange – ‘Orange Zinger’. This was the only orange variety to not exhibit growth cracks throughout the trial. The flavor was delicious the foliage density good and the fruit was a bright orange inside and out.

Maroon – ‘Chocolate Sprinkles’. This cherry tomato had very little insect damage or fruit rot. The foliage was dense, the fruit had unique color almost like a green fruit with more red/ brown sprinkles of color overshadowing most of the green. The flavor was intense and preferred by the majority of taste testers.

The only varieties not recommended at this time are ‘Sunrise Sauce’ and ‘Gallant’. ‘Sunrise Sauce’ had poor yields and the fruit that was produced was low quality. ‘Gallant’ seemed to be preferred by insects. It exhibited the most insect damage of all varieties. Also, ‘Gallant’ interior fruit color was inferior. Fruit color may be helped by applying additional calcium fertilizer for this variety throughout the growing season.

Variety	Seed Source	Foliage Density	Exterior Fruit Color	Interior Fruit Color	Fruit Shape/ Size	Notes
Orange Zinger	Jenny Seed	Good	Dull Orange	Dull Orange	Oblong	Very firm fruit and excellent yielding.
Odat	Moravo Seed	Good	Orange	Orange	Oblong	Very firm, later in the season exhibit growth cracks.
Response	Jenny Seed	Good	Bright orange	Dark orange interior	Oblong	Some fruit rot occurring throughout the field.
Sunrise Sauce	Jenny Seed	Fair	Yellow	Pale yellow	Oval plum	95% of fruit exhibited rot. Poor fruit production in both locations. Not recommended for production in Louisiana.
Chocolate sprinkles	Jenny Seed	Good	Green with red flecks /spots maturing brown with red flecks/spots	Maroon	Oblong with pointed blossom end	Very firm. The clear flavor choice for all cherry tomatoes no matter the color.
Espresso	Jenny Seed	Fair	Maroon	Dark Red interior. Some green near the stem end.	Round Large plum size	Some concentric cracking. Firm fruit. Slow to ripen on shoulders.
Midnight snack	Jenny Seed	Good	Green maturing cherry red with dark purple shoulders	Red interior	Round standard cherry	Always a yellow star on the stem end. This fruit has purple to red and yellow colors, very attractive fruit.
Kali	Jenny Seed	Good	Cherry red	Pale red	Oblong	Some fruit rot occurring throughout field
Mandat	Moravo Seed	Good	Cherry red	Pale red interior remaining green at stem end	Oblong	Exhibits lots of growth cracks, although we did not see this when it was grown in the greenhouse.
Tastier	Moravo Seed	Fair	Cherry red	Cherry red	Round Large Plum	Very firm fruit. Stem end has a green stripe.
Gallant	Moravo Seed	Fair	Orange/ red	Blotchy red interior but always green interior near stem end	Large round cherry	Seems to be a favorite for stink bugs exhibits more damage than other varieties.

Eider	Jenny Seed	Fair	Cherry red	Blotchy pale red interior	Round and oval shaped fruit	Excellent yielding fruit. Very firm fruit.
122-317	Jenny Seed	Good	Cherry red	Red with green stripe some white spots around edge on interior of fruit	Large cherry oblong	Very firm. Possibly need more calcium fertilizer to help with interior fruit quality.
Mai Tai	Jenny Seed	Good	Cherry red	Cherry red interior with some green color near the stem end	Round standard cherry	Very firm fruit. Attractive fruit.

Seed germination was greater than 90% for all tested varieties.