All tomatoes are not created equal
K-State horticulture expert discusses the difference between tomatoes

MANHATTAN, Kan. – Roma, cherry, heirloom…while those may be what come to mind when consumers think of tomatoes, K-State Research and Extension horticulture expert Ward Upham said the scientific classifications actually make them very different.

Upham said most varieties available to home gardeners are indeterminate or semi-determinate. The third group, determinate, is favored by commercial growers because it produces one large crop.

“Indeterminate plants are traditional plants that never stop growing,” Upham said. “They are capable of producing fruit throughout the season unless disease stops production or until frost kills the plant.”

Semi-determinate tomatoes are more compact than indeterminate but are capable of producing fruit throughout the season.

“Gardeners with limited space will likely prefer indeterminate or semi-determinate types to stretch out the harvest season,” Upham said. “If there is space, you may want to grow a combination of all three, with the determinates used to produce a large harvest for canning or tomato juice, and the remainder for fresh eating.”

Something for Kansas gardeners to keep in mind is that tomatoes are less likely to set fruit when night temperatures remain above 75 degrees Fahrenheit and day temperatures are above 95 F. Planting as soon as the weather is right could help lengthen the fruiting season.

“Our hot Kansas summers often cause a dry spell in production in both types,” Upham said.

Tomatoes can generally be planted in early to mid-May in Kansas or when the daytime temperatures are above 70 F and the state has passed the frost-free date, Upham said.
Tomato Trials

Kansas Master Gardeners and the University of Missouri extension service plant and rate a number of tomato varieties each year.

Upham said these trials give valuable information on varieties that will perform well in this region. The data from Missouri’s extension service showed that the top 10 varieties based on pounds of fruit harvested per plant are:

- Anna Russian.
- Cherokee Purple.
- German Johnson.
- Beef Master.
- Early Girl.
- Big Boy.
- Brandywine Black.
- Jet Star.
- Celebrity.
- Big Beef.

Upham noted that the results of these trials vary by county.

Upham and his colleagues in K-State’s Department of Horticulture and Natural Resources produce a weekly Horticulture Newsletter with tips for maintaining home landscapes. The newsletter is available to view online or can be delivered by email each week.

Interested persons can also send their garden- and yard-related questions to Upham at wupham@ksu.edu, or contact your local K-State Research and Extension office.

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K-State Research and Extension local offices, www.ksre.k-state.edu/about/stateandareamaps.html

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