



Frequently Asked Questions about Tomatoes and the Great Tomato Plant Sale

Although lots of UC Master Gardeners will be available at our Sales to help you select the right tomatoes for where you live and to answer your questions, we've also compiled the answers to a number of our customers' frequently-asked questions. We hope that these answers will make you smarter shoppers.

WHAT'S THE DIFFERENCE BETWEEN A HYBRID AND AN OPEN-POLLINATED TOMATO PLANT?

A **hybrid** is a cross between two plants, both selected for certain characteristics—disease resistance, size, color, taste, productivity, etc. Hybrids are the progeny resulting from this controlled or manipulated cross-pollination. The seeds of hybrids can't be saved because the offspring will show a lot of variation and will not breed true to the parent plant. In the past, hybrids got a bad name as breeders selected commerce-related characteristics such as tougher skins to withstand shipping or uniform size for more convenient harvesting, and thereby sacrificed taste. We got tomatoes that tasted like cardboard! But, more recently, breeders have returned to breeding tomatoes that keep what is best in old-style heirlooms, but incorporate a variety of disease resistances. That's why we are now offering more of these hybrids, which, by the way, are not GMOs (genetically modified in a lab)!

Heirloom varieties are **open-pollinated** plants. This means that their seeds may be saved and will breed true-to-type over many generations. Many open-pollinated tomato varieties were originally the product of many generations of careful selection and seed saving by the farmers that grew them; they were handed down in their families (e.g. Aunty Ruby's German Green, Cherokee Purple) or in a small geographic location (e.g. San Marzano, Pomodoro Canestrino di Lucca). We offer these heirloom tomato varieties to demonstrate our commitment to the tradition of seed saving and the seed history they represent. By growing these heirlooms in your garden, you are also part of this commitment.

WHY ARE YOU OFFERING MORE HYBRIDS THIS YEAR?

We know that growing heirloom tomatoes can be tricky and while the ones we offer for sale have thrived in UC Master Gardeners' Contra Costa gardens, we also wanted to offer our customers tougher varieties. These hybrids have been bred by tomato breeders, frequently university Agriculture Departments, to offer a variety of disease resistances, but still retain the robust taste and flavor of 'old-timey' heirloom tomatoes. Many of these hybrids are particularly resistant to soil pathogens such as Fusarium Wilt and Verticillium that attack the roots of tomatoes.

If you have suffered the complete collapse of your tomatoes in past seasons, you may have soil pathogens. Unfortunately, these pathogens tend to hang around, so you may want to consider purchasing hybrids specifically bred to be disease resistant. We also recommend that you consider crop rotation to help keep soil pathogens from building up in your garden.



WHAT'S THE DIFFERENCE BETWEEN DETERMINATE AND INDETERMINATE?

Determinate is a growth habit in which the main plant terminates its vegetative development in the development of a flower. These varieties are consequently smaller. The fruits of a determinate tomato also ripen within a concentrated period of time.

Indeterminate is a growth habit in which the main plant remains vegetative and growth and flowering can continue indefinitely over the plant's entire life cycle. Indeterminate tomato varieties form larger, rangier plants and continue to produce fruits over a longer period time, sometimes up to a killing frost.

WHY WOULD I SELECT A DETERMINATE VARIETY OR AN INDETERMINATE VARIETY?

A **determinate** (*det.*) tomato is usually a smaller, more compact plant that will work well in a small space or in large pots and containers. These smaller bush varieties do not need to be pruned or to be supported by trellises or cages. They bear fruit over a limited period of time, which will vary from variety to variety.

Indeterminate (*indet.*) tomatoes are larger plants that produce long vine-like branches that require trellises or cages for support. They also need more space to grow. Indeterminate tomato plants bear a continuous supply of fruits over an extended period of time, until they are killed by frost.

WHAT DOES THE NUMBER OF DAYS LISTED AFTER EACH TOMATO VARIETY MEAN?

Days-to-maturity (DTM) provides a general guideline as to when you can expect to harvest your first tomatoes after planting them. Obviously, DTM will vary from one climate to another. But if you live in one of the cooler micro-climates in Contra Costa, we recommend that you pick tomato varieties with fewer days to maturity, giving you better results. In most cases, our descriptions also point out that a particular variety does well in cooler climates.

You'll find the following information on the sale stakes for each variety of tomato plant we sell: Variety Name, Color, Type (Beefsteak, Cherry, Paste), Det./Indet., DTM, and Hybrid/Open-Pollinated.

WHY AREN'T YOU OFFERING "VARIETY X" THIS YEAR?

Every year we re-examine our Sale inventory and discuss with other UC Master Gardeners what did or didn't work well in their Contra Costa gardens. We focus on growing varieties that grow well in Contra Costa and aren't widely available. This year, for example, we have added 25 new tomato varieties, many of them hybrids.

Unfortunately, we have a limited amount of space and UC Master Gardener volunteers, so we simply can't grow everything we'd like to. In 2012, we started with just 30 tomato varieties; in this year's Sale, we will be offering 87 varieties and selling over 20,000 plants! That takes a lot of work! We are also constantly field testing new varieties at *Our Garden*, our demonstration garden in Walnut Creek, to determine whether they grow well here in Contra Costa's climate. The few that make the grade will be at the Great Tomato Plant Sale for you to buy next year.