

## Gift Of Graft: Grow Heirloom Tomatoes On More Hardy Varieties

Leimone Waite, Master Gardener, Sept. 9, 2019

**Q:** I like to grow heirloom varieties of tomatoes but the last few years I have had issues with several tomato diseases in my garden beds. I have purchased grafted tomato plants that have done very well but they are way more expensive than regular tomato starts and I have a hard time finding my favorite tomato varieties. I used to start all my own tomatoes and would like to start and graft my own seedlings. Could you tell me how I might graft my own tomato plants?



The SIW Vegetables farm stand in Chadds Ford, Pennsylvania, is well known for its large variety of heirloom tomatoes. A smaller farm stand opens July at Richardson's Floral Center in Hockessin. (Photo: Patricia Talorico/The News Journal)

**A:** Grafted tomato plants have become popular for the reasons you mentioned: People like the taste of the heirloom tomato varieties but have problems with diseases and nematodes when growing them. In the Purdue University Extension publication "Techniques for Tomato Grafting,"

Wenjing Guan and Steve Hallett explain the main reasons why you might want to graft your tomatoes.

“Vegetable grafting has attracted tomato growers’ attention as an approach to control soil-borne diseases and improve crop yield. By grafting scion plants that have desirable fruit characteristics onto rootstock plants that have disease resistance, stress tolerance, or vigorous root system characteristics, grafted plants combine beneficial traits from both the scion and rootstock plants.”



Tomatoes are among the easiest seeds to save. (Photo: Getty Images)

Grafting your own tomatoes will require quite a bit more effort than just starting your own seedlings for transplanting. First you need to choose and plant seed of a tomato variety that will serve as a good root stock; one with the letters VFN following the name of the variety.

You will also need to plant seeds for the heirloom varieties that you want to grow. It is best to plant seeds into a tray and then transplant uniform seedlings into individual paper cups, peat pots or small pots. You want to do this when the seedlings are around seven days old. It is important to get uniform-sized seedling as you have to match up the stems when grafting.

Once the first set of true leaves emerge, usually when seedlings are 14-18 days old, you are ready to graft the plants. You will need to make a 45-degree angle cut on the root stock tomato just below the cotyledons, this helps you to avoid unwanted suckers later, using a sharp knife such as a craft knife or a razor blade.

Place a grafting clip on the cut end of the rootstock. Grafting clips can be found by searching Amazon for "silicone tomato plant grafting clips." Then make a similar angled cut on the tomato seedling that will be the scion, top part of the plant, and place cut in the top part of the grafting clip.

Make sure to match up cuts so the stems fits together well. Mist plants immediately with water and place grafted plants into a flat that has been fashioned into a healing chamber. You can make a healing chamber out of a flat, some wire, shaped to keep plastic off of the plants, and a clear sheet of plastic or large clear garbage bag.

Mist inside of the bag often to keep humidity high in the chamber and leave plants covered in an area inside your house where they will get bright light but no direct sunlight for one week. At this point you should be able uncover the plants and treat them like you would regular tomato seedlings that you have started for transplanting.

A couple in Fremont have an indoor tomato plant that's grown to a height of 29 feet. Ken and Barb Hahn's plant has grown taller than their second-story ceiling. (Jan. 8, 2014)

You can find a good how to video about tomato grafting on YouTube from Virginia Tech Master Gardeners at <https://www.youtube.com/watch?v=ofSZzIMSnAw>.

*The Shasta Master Gardeners Program can be reached by phone at 242-2219 or email [mastergardener@shastacollege.edu](mailto:mastergardener@shastacollege.edu). The gardener office is staffed by volunteers trained by the University of California to answer gardeners' questions using information based on scientific research.*