

Tomato Wilt

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Back in May I wrote about blossom end rot, and common disorder of tomato plants in our area. Easily cured, either by a topical spray or the addition of calcium to the soil. Today it's time to present another tomato problem, unfortunately not as “solvable” as blossom end rot.



Wilt in tomatoes is the bane for gardeners and for good reason. Tomatoes can be incredibly frustrating as almost any stress causes them to show signs of wilt. Lack of water, very hot weather, neighboring walnut trees, root-knot nematodes, herbicide drift, and several diseases all make tomatoes wilt. Today we'll cover the most likely diseases causing wilt, fusarium and vermicillium wilt. Hopefully you're reading this because of interest and not because your tomatoes have wilt caused by these fungal diseases. If they do, my condolences as fusarium and vermicillium wilts are not easy to defeat.

These two wilt diseases are very difficult to tell apart and their effect is the same. They both start at the bottom of a plant and work it's way up at about the time when fruit is starting to mature. The fungus enters the plant system and starts clogging up water and nutrient transportation tubes in the stems which causes the leaves and then branches to yellow then wilt and then die, sometimes only on one side of the plant or even one side of a branch. There's usually very little time between the plant looking great to suddenly it's more dead than alive. If the surface of the stem is lightly scraped there will be a layer of brownish tissue just below the surface while the middle of the stem is still healthy. The brownish area is where the transportation tubes have become clogged.

The good news is these fungal wilts are soil born and only infect a plant when the fungus comes in contact with the plant's roots. That means if the adjacent plant's roots do not touch the fungus it will not become infected. The bad news is these fungal wilts are soil born and as such can stay in the soil for many years.

There is no immediate cure for these diseases. Infected plants should be pulled and destroyed by fire or garbage as soon as they are identified (do not compost!). Rotate crops and plant tomatoes in other locations for at least several years and for one, maybe even two years avoid planting any other nightshade plants (bell peppers, eggplant, white potatoes) where the infected plants were pulled. Other future actions include planting only wilt resistant tomato varieties (a good garden center can help identify which varieties are most resistant), and planting in raised beds or containers containing only fresh potting mix or top soil. Sterilization of all tools and potting equipment with a 10% chlorine bleach solution is always good practice but especially important when trying to prevent fungal wilt diseases.

Ending on a good note, fruit from fungal-infected tomatoes are perfectly safe to eat. Although they're not usually ripe when the disease hits and they need to be picked, they will quickly ripen if placed in a warm (yes, not cool but warm) and dark area.

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