

Ask a Master Gardener

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Dorothy Rothbart, Carroll County Master Gardener Volunteer

Killer Tomatoes vs Tomato Killers

Q: Having done the research and planned carefully, I planted my tomatoes with hopes of enjoying a bumper crop of those much prized beauties. But now, I am noticing that the plants and fruit are not looking so good. What could have gone wrong? D. Smith

Guy Clark put it so well....

“Homegrown tomatoes, homegrown tomatoes

What’d life be without homegrown tomatoes

Only two things that money can’t buy

That’s true love and homegrown tomatoes”

Tomatoes are considered by many to be the most prized vegetable in their garden. A soil test, choosing the right varieties, proper planting procedures, mulching, watering, fertilizing, and careful monitoring still can’t ensure a successful crop. You are expecting a spectacular, juicy crop of killer tomatoes, but instead you are fighting with tomato killers. Let’s just call it “Killer Tomatoes vs Tomato Killers”. Unfortunately, there are a number of garden pests and diseases that may damage or destroy your crop.

Common garden pests such as tomato hornworms, aphids, whiteflies, leafminers, cutworms, loopers, and stinkbugs have been known to cause damage to tomatoes. It is best to closely monitor your garden for signs of these pests. The hornworm, a fat, green, 3-4 inch long caterpillar with a horn on its back end. Don’t worry the horn does not sting. These can be hand-picked and destroyed. Good cultural practices and the protection of beneficial insects (bugs that are natural enemies) ensure the plant’s survival. If necessary, the use of insecticides can be helpful. It is important to follow all label instructions when using chemical controls.

Diseases and viruses present a real problem for the home gardener. Many diseases thrive in Georgia’s warm, wet, and humid weather. Let’s look at a few specific things to look for and investigate the causes. A water-soaked spot at the blossom end of tomato is the classic symptom of blossom-end rot. A common garden problem, blossom end rot, is not a disease, but rather a physiological disorder caused by a calcium imbalance within the plant.

Buckeye Rot, characterized by brown spots that advance into concentric rings, can cover up to half of the tomato. Under the right conditions the lesions can rapidly decay leaving a white cottony growth on the fruit. Buckeye rot of tomatoes is caused by the pathogen *Phytophthora*

parasitica. It is a fungus that thrives in warm, wet conditions and lives in the soil. It can be spread by splashing water and rain.

Another fungal disease, Early Blight, can affect all parts of the plant except the roots. It is recognized by brown to blackish spots with halos on the leaves. The stem can become infected and the lesions will grow and girdle the plant. Lesions appearing on the tomato fruit become covered with a black, velvety mass.

Southern Blight, another soil born fungal disease, can be evidenced by a rapid wilt and yellowing of the stem and leaves. If you pull up the plant, you will find that the lower stem and upper roots have been infected.

Fusarium Wilt enters plant roots and moves up through the vascular system. Yellowing and wilting move up the plant as the fungus spreads. In most cases the stem will show discoloring caused by clogged water-conducting parts in the stem. Usually the plant will die or produce poor quality fruit.

However, the most common virus affecting tomatoes is Tobacco Mosaic. Mottled green and yellow coloring and crinkling of the leaves is what you will notice. Usually the new growth is where this will be found. This virus enters the plant by physical contact or by insects. If you handle any form of tobacco products the virus may be introduced to transplants, but insects may also carry this virus to your garden.

Plant parasitic Nematodes are small microscopic roundworms that live in the soil and attack the roots of plants. Nematodes feed on the roots and prevent the plant from taking up water and nutrients. This root damage can be evidenced by above ground stunting, yellowing of leaves, and overall plant decline.

We have discussed a few of the most common problems. There are other fungal, bacterial, and viral pathogens that can damage your crop. It is apparent that our wet, warm, and humid climate provides the perfect opportunity for these problems. Often rain or watering can splash soil borne pathogens up on to the plant. It is a good idea to have mulch or several layers of newspaper around the plants to prevent this. Regular observation of your garden tomatoes for symptoms of these "tomato killers" is important. If you observe any symptoms please contact a Master Gardener at the Carroll County Extension Office, 900 Newnan Road, Carrollton or call 770-836-8546. Help can be provided by identifying the specific insect, fungus, or virus that is attacking your garden tomatoes. After the problem is correctly identified control measures can be provided.