Common Diseases and Other Problems in Home Garden Tomatoes

Homegrown tomatoes are one of the most popular garden vegetables. The varieties available to the home gardener are very flavorful and require relatively little space for large production. With proper watering and care, each tomato plant will yield 10 to 15 lbs. or more of fruit.

As the plant grows, either place a wire cage around the tomato plant or stake it. This makes caring for and harvesting the tomatoes easier and, because the fruit is off the ground, fruit rots are reduced.

Some of the most common diseases of home garden tomatoes, and other problems that may mimic diseases, are listed below, and are organized according to major symptom: dying/wilting, leaf or stem spots, and lack of fruit or poor fruit quality.

PLANT IS WILTED OR DYING

Fusarium wilt
A disease that is caused by a soil fungus that infects only tomatoes and is favored by warm soil.
Looks like: Plants turn yellow starting with one side or branch and gradually spreading. Plant wilts. When main stem is cut off at base, inside dark reddish-brown instead of normal ivory color.
What to do: Grow varieties labeled VF, which indicates resistance to most (but not all) races of *Fusarium* (F) and *Verticillium* (V).

Phytophthora root rot
A disease caused by a soil fungus. Common in clay soils that stay wet for long periods of time.
Looks like: Plants grow slowly and wilt. Roots have water-soaked areas that turn brown and dry.
What to do: Plant on a mound, so the roots will have drier soil to grow in. Do not allow soil to remain saturated with water for extended periods. If soil is heavy and water does not easily penetrate the soil, apply less water.

Root knot nematodes
Nematodes are microscopic roundworms that live in the soil and feed on the roots of plants.
Looks like: Plants have poor vigor, reduced growth, and may look wilted. Leaves yellow and turn brown, staring with the lower ones. If plants are pulled from the soil, many small beads or swellings are present on the roots.
What to do: Remove old plant debris. Plant varieties that are resistant to root knot nematode. These are labeled VFN (the last letter "N" denotes nematode resistance).

Spotted wilt virus
A disease that is spread to tomato plants from various crops, ornamentals, and weeds by a tiny insect called thrips.
Looks like: Plants are yellowish with brown spots on leaves; some stems may have brown stripes. Fruit poorly colored with circular light areas or distorted bumps.
What to do: Remove and destroy infected plants. Control nearby weeds that can harbor virus or thrips.

Verticillium wilt
A soil fungal disease that infects many different plants and is favored by cool soil and air temperatures.
Looks like: Older leaves begin to yellow and eventually dies. Yellowing begins between the main veins of leaves. Internal stem is very slightly tan-colored, usually in small patches.
What to do: Grow varieties labeled VF, which indicates resistance to most (but not all) races of Fusarium (F) and Verticillium (V). Avoid planting tomatoes, potatoes, peppers, eggplant, or cucurbits in the same area of the garden year after year (rotate the crops). Symptoms are most severe when plants have a heavy fruit load, and the weather is hot.

LEAVES AND STEMS HAVE SPOTS
Late blight
A fungal disease that is favored by high humidity and mild temperatures (around 68˚F).
Looks like: Water-soaked, brown areas on leaves and stems. Grayish white fungus grows on undersides of leaves, and leaves die. Fruit discolored but firm.
What to do: Avoid wetting the foliage; use soaker or drop irrigation instead. Destroy all debris after harvest.

Powdery mildew
A fungal disease that usually occurs in summer or fall but does not cause significant loss unless very severe.
Looks like: Irregular yellow blotches on leaves. Blotches turn brown and dies but leaves usually do not drop unless disease is severe. Does not affect stems or fruit.
What to do: Make sure that plants are receiving adequate water. If young plants are attacked, sulfur dust will reduce the problem.

Russet mites
Russet mites are very tiny mites that are generally not visible to the naked eye; (need to use a 20X hand lens to view).
Looks like: Lower leaves and stems have bronze, oily brown color. Discoloration progresses up plant. Lower leaves may drop. These mites are normally a problem beginning 4th of July.
What to do: Avoid growing tomatoes near petunias or other plant that are closely related to tomatoes, such as potatoes, because they are also hosts of this mite. Sulfur is effective.

LACK OF FRUIT OR POOR FRUIT QUALITY
Blossoms drop
Blossom drop can result from extremes in temperature (too high or too low) that often occur early in the season, too much fertilizer or shade, and poor variety choice for the growing area. These may occur in the following conditions:

1. Day temperatures too high (greater than 90˚F). What to do: Keep soil moderately moist.
2. Excess nitrogen fertilizer. What to do: Use recommended amounts of fertilizer.
3. Too much shade from trees or house. What to do: Grow tomatoes in area with full sun.
4. Unsuitable variety. What to do: Plant variety suited to growing area. Some varieties are not adapted to California's hot summers, and these often fail to set fruit.
5. Early blossoms. What to do: Be patient. Early blossoms do not consistently set fruit; as the season progresses, fruit set should improve.

Blossom end rot
This disorder is caused by growing conditions rather than by a pathogen. Problem is associated with calcium nutrition and water balance in plant.
Looks like: Fruits are brown, black on bottom (blossom) end.
What to do: Aggravated by high soil content or low soil moisture. Maintain even soil moisture.

Cracked fruit
Fruit cracking is caused by growing conditions rather than by a pathogen. Some varieties are more prone to cracking.
Looks like: Cracks occur in concentric circles around the stem.
What to do: Usually occurs following rainfall or irrigation after an especially dry spell. Be sure soil drains well; remove affected ripe fruit promptly.
…or…
Looks like: Cracks radiating out from the stem.
What to do: Occurs when temperatures are hot (greater than 90°F), and sunlight is intense. Keep soil evenly moist. Maintain good leaf cover. In very hot regions, choose planting time to avoid fruit maturity when temperatures will be consistently above 90°F.

Solar Yellowing of Fruit
Yellow discoloration of tomatoes generally occurs when daytime temperatures regularly exceed 85°F. The term for this condition is "solar yellowing" because the source of the problem is the sun-not only the heat, but mainly high sunlight intensity.
Looks like: When the fruit ripens, the upper part of the fruit near the stem turns yellow while the remainder turns red.
What to do: Generally, not a problem on fruit that is shaded by the tomato plant leaves.

Stink bugs
Stink bugs are green to grey shield-shaped bugs, ½ inch in length, which feed on the fruit, puncturing the skin, and destroying the underlying tissue.
Looks like: Creamy to yellowish cloudy spots lacking definite margins in ripe tomatoes. Tissue beneath the spot is spongy.
What to do: Stink bugs over-winter beneath boards in refuse piles, weedy areas, and the like. Remove those from the garden area.

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