

Most everyone loves a juicy, sweet, ripe tomato. Each plant is so prolific that few are required to feed a family. They don't object to containers or small spaces and we can all grow them, they are that easy! . They're not fussy! But they do have a few predators and are susceptible to a few infections/circumstances that require a careful eye.

How to grow tomatoes:

- Plant in late spring or early summer where the tomato will receive 8 hours of full sun; stake it with sturdy supports when you plant it.
- Plant resistant varieties: You might see a label with VFAN. That means the plant is resistant to the following: Vercillium wilt; F means Fusarium wilt; A means Alternaria leaf spot; N means nematodes.
- Space tall indeterminate plants 3' apart;
- Space stubby determinate plants 2' apart.
- Need a pH of 6.2-6.8 which is mildly acidic soil.
- Provide constant nutrients by adding organic fertilizer in the hole and then 3-4" of compost along the soil line.
- Bury 2/3 of the plant stem beneath the soil surface to encourage lots of roots which will provide more constant moisture.
- Cover the soil line [on top of the compost] with 2-4" of mulch. Do not have it touch the stem. This provides a mound around the plant to direct water to the roots.
- When fruit ripens, remove immediately to lessen the weight on branches.
- Prune leaves from the soil line up 12-18" to help prevent fungal infections. Remove sucker branches that develop in branch crotches.
- Never water from above, soaking leaves, as this increases risks of fungal infections.

Tomato Quirks

- Root primoda: Often the main stem will have bumps along its length. These are the earliest stages of root development where the stem to grow underground. It is common in wet weather and when a branch grows along the surface and roots there.
- Cat facing: Puckered fruit [also seen in strawberries] results when the plant is in bloom or setting fruit and the temperature falls below 50 degrees. This cool weather causes blossoms to stick to the fruit; where it adheres, the fruit stops developing.
- Sunscald: Tomato plants have tons of leaves to protect the fruit from the blazing summer sun. The fruit, especially if it is green, becomes sunburned. A papery spot develops but, after harvest, can be cut away easily.
- Skin split: Tomatoes are juicy business. They take up water quickly. When that uptake is too rapid and the skin doesn't have enough time to grow in girth, it splits. This happens more often after a dry spell.

- Blossom end rot: Occurs more often in dry weather and the bottom end of the fruit rots; turns black.
- Falling blooms: This primarily occurs when the spring weather is too cool or from a summer heat wave. Tomato blooms require temps between 55-80 degrees to set fruit.
- Green shoulders: The shoulders of most tomatoes are the last part to turn red. Some varieties, especially heirloom tomatoes, frequently keep their green shoulders.
- Bristly stems: Root primoda become white bristly aerial roots that develop as a result of excess water. These stems grow to absorb the excess to prevent root rot and to increase the intake of oxygen.

Tomato Diseases

- Early blight: A fungus called *Alternaria solani*, causes early blight, AKA target spot or *alternaria leaf spot*. There is a loss of lower leaves with dark spots; when the fruit is infected, large black concave areas occur. Fungicides will control it.
- Vercillium wilt: Another fungal infection that causes lower leaves to yellow and drop. The plant can survive but will be stunted and produce a lower crop yield. There is no treatment.
- Bacterial spot: This presents with brown spots on leaves and stems; as they grow, they develop a yellow halo much like the crabapple tree at the library! Best advice is to water from below and keep areas around the plant weed free. Fungicides will treat black spot.
- Cucumber mosaic virus: The leaves develop a yellow background. Please see notes from this past summer's newsletter.

There are other fungal, bacterial, and viral infections you can research. Often they involve wet leaves, crowded conditions, and debris cluttered soil surface. Remove all dropped leaves and fruit, dead or decaying branches for a tidy and healthy garden bed.

Pest controls

- Pest controls for tomatoes begin with creating nutrient-rich soil by adding organic compost before planting and into the hole.
- Companion planting attests that certain plants grown together create mutual strength and disease resistance. Tomatoes become more disease free and pest resistant when planted near onions, nasturtiums, marigolds, asparagus, carrots, parsley, and cucumber. Basil repels whiteflies. Dill and borage repel hornworms.

