

## Reducing Tomato Diseases

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Eliminating diseases in tomato plants is almost impossible. The secret is in reducing them and/or delaying them so that 90% of the tomatoes ripen and are harvested before the plant dies in the fall. Realize that most of the diseases that plague tomatoes come from the soil so anything that can be done to reduce or break the contact of the leaves of the plant with the soil will help.

Below are the practices I have observed from some very successful growers that can help in reducing the many disease problems that plague tomatoes.

Some basic things to do:

1. Get a soil test of the garden soil and follow the recommendations
2. Plant a disease resistant tomato variety when possible
3. Rotate tomato planting locations in the garden each year
4. Do not plant tomatoes near Black Walnut trees
5. Do not smoke near tomato plants, the tobacco smoke can give them a virus
6. Avoid as much as possible planting tomato plants in shade or partial shade

Now for the tricks of the trade that seem to be the difference between a dismal crop and a bumper crop:

1. Lay down a soaker hose or better yet, trickle tape in the spring to water tomatoes in a row, they need a little bit of water (not too much or the roots will rot) every 1 – 2 days when it does not rain, cover the hose with soil or a mulch so no water is sprayed in the air, never water with an aerial sprinkler that splashes water and soil on the leaves of the plant as this is how many diseases start with soil splashed on the lowest leaves of the plant, and never, ever water plants in the evening with an over head sprinkler as leaves that stay wet all night are much more prone to disease infestation (for just a few plants a tin can with a weep hole in the bottom buried at soil level is as good as the hose for watering).
2. To prevent rainfall from splashing soil on the leaves do two things, first use cages or wires to tie the growing tomato branches off the ground, and secondly use a mulch on the ground, be it grass clippings (herbicide free lawn grass of course), newspaper, wood chips, or better yet black plastic mulch. The mulch holds in moisture, controls weeds, warms the soil for early summer growth (only black plastic), and breaks the contact between the plant and the splashing soil.
3. Don't plant tomatoes too close together or too close to other tall plants or buildings, tomatoes need lots of sunlight and good air circulation to grow well and produce flavorful tomatoes, depending upon the type of tomato, some may need as much as 4 feet spacing from another tomato plant.

4. Spraying a fungicide, like Daconil 2787, at first blossom set and then every 10 days on the plants, can prevent some fungal diseases on tomatoes. Read and follow all label directions.
5. An extra step that really does help, but takes some extra labor, is to do all of the above along with planting the tomato on a raised mound of soil, or a raised ridge running the length of the row of tomatoes. This mound or ridge is 10 – 12 inches high and about the width of mature plant (26 – 34 inches). This causes excess water to run off, not splash soil on the leaves, and keeps the roots drier and warmer in wet periods of the summer. This raised bed will not work without the soaker hose, trickle tape, or tin can irrigation however.
6. Most importantly plant early as you want the plants to blossom and be producing mature fruit in the warm and sunny part of the summer, which most commonly is July, so raise or buy started transplants, set them out with frost protection coverings like floating row covers (nurseries carry it) that can stay on the plants for the first four weeks as sunlight still gets in and moisture still gets out, and use black plastic for mulch to advance their growth to have much of the production already complete by the time the cooler nights in August triggers many of the disease problems.