

Common Tomato Diseases and Proper Treatment

Tomatoes are a beloved crop for many gardeners, but they are susceptible to a range of diseases that can significantly impact yield and fruit quality. By selecting resistant varieties, practicing crop rotation, maintaining good sanitation, and using appropriate fungicides and bactericides, gardeners can enjoy healthy and productive tomato plants. Understanding the specific symptoms and causes of common diseases is crucial for early detection and successful treatment.

Common Tomato Diseases and Their Management

1. Early Blight (*Alternaria solani*)

Symptoms: Early blight is characterized by concentric rings on older leaves, leading to yellowing and eventual leaf drop. The lesions often have a bullseye appearance.

Treatment and Prevention:

- Crop Rotation: Avoid planting tomatoes or related crops (potatoes, eggplants, peppers) in the same spot for at least three years.
- Sanitation: Remove and destroy infected plant debris to reduce inoculum levels.
- Fungicides: Apply fungicides containing chlorothalonil or copper-based compounds as a preventive measure during favorable conditions.

2. Septoria Leaf Spot (*Septoria lycopersici*)

Symptoms: Small, water-soaked spots that develop into circular lesions with dark borders and light centers, primarily on lower leaves.

Treatment and Prevention:

- Water Management: Avoid overhead watering to reduce leaf wetness duration. Water at the base of the plants instead.
- Mulching: Use mulch to prevent soil from splashing onto leaves.
- Fungicides: Regular application of fungicides such as mancozeb can be effective.

3. Fusarium Wilt (*Fusarium oxysporum* f. sp. *lycopersici*)

Symptoms: Yellowing and wilting of leaves, usually starting on one side of the plant. Vascular discoloration can be observed in stems.

Treatment and Prevention:

- **Resistant Varieties:** Select varieties that are resistant to Fusarium Wilt (look for "F" on seed packets).
- **Soil Solarization:** Use clear plastic to cover and heat the soil, reducing pathogen levels.
- **Crop Rotation:** Implement crop rotation with non-susceptible crops.

4. Verticillium Wilt (*Verticillium dahliae* and *V. albo-atrum*)

Symptoms: Similar to Fusarium wilt, but often affects plants later in the season. Leaves show a V-shaped yellowing pattern starting from the edges.

Treatment and Prevention:

- **Resistant Varieties:** Select resistant varieties (indicated by "V" on seed packets).
- **Good Cultural Practices:** Maintain proper spacing and avoid excessive nitrogen fertilization, which can exacerbate symptoms.

5. Bacterial Spot (*Xanthomonas campestris* pv. *vesicatoria*)

Symptoms: Small, water-soaked spots on leaves, stems, and fruit that enlarge and become necrotic. Fruit lesions can lead to significant blemishes.

Treatment and Prevention:

- **Seed Treatment:** Use certified disease-free seeds and treat seeds with hot water or bleach solutions.
- **Sanitation:** Remove and destroy infected plant material.
- **Copper Sprays:** Apply copper-based bactericides at the first sign of symptoms and repeat, as necessary.

6. Tomato Mosaic Virus (ToMV)

Symptoms: Mottled, light, and dark green areas on leaves, distorted growth, and fruit with internal browning.

Treatment and Prevention:

- **Sanitation:** Disinfect tools and avoid handling plants when wet to prevent mechanical transmission.
- **Resistant Varieties:** Choose resistant varieties when available.
- **Rogue Infected Plants:** Remove and destroy infected plants immediately to reduce spread.

7. Nematodes (*Meloidogyne* spp.)

Symptoms: Galled roots, stunted growth, yellowing, and wilting of plants.

Treatment and Prevention:

- Resistant Varieties: Plant nematode-resistant varieties (indicated by "N" on seed packets).
- Soil Amendments: Use organic amendments like compost and manure to improve soil health and reduce nematode populations.
- Crop Rotation: Rotate with non-host crops to manage nematode levels.

Cultural Practices to Prevent Tomato Diseases

1. Proper Spacing: Ensure adequate spacing between plants to improve air circulation and reduce humidity around foliage.
2. Pruning: Remove lower leaves and suckers to increase airflow and reduce contact with soil.
3. Irrigation: Use drip irrigation or water at the base of plants early in the day to minimize leaf wetness duration.
4. Sanitation: Clean up plant debris and sanitize tools regularly to prevent disease spread.
5. Mulching: Apply mulch to reduce soil splashing and maintain consistent soil moisture levels.

References

[OSU Fact Sheet: Master Gardeners Manual E-1034](#)

[OSU Fact Sheet: Common Diseases of Tomatoes: Diseases Caused by Fungi EPP-7625](#)

<https://extension.okstate.edu/fact-sheets/growing-tomatoes-in-the-home-garden-2.html>

<https://extension.okstate.edu/fact-sheets/common-diseases-of-tomatoes-part-ii-diseases-caused-by-bacteria-viruses-and-nematodes.html>

[OSU Fact Sheet: Non-Chemical Methods for Controlling Diseases in the Home Landscape and Garden EPP-7652](#)