



Tomato Diseases in the Home Garden

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Tomatoes are one of the top three favorite vegetables grown in home gardens. Tomatoes are the most delicious when they are grown and picked at peak ripeness from your garden. But there is more involved than just planting and harvesting.

Four common diseases can ruin the tomato fruit or kill the plants or do both. They are all caused by different kinds of fungi. Fungal diseases cannot be cured once they have begun, but they can be successfully prevented. The best news is that all these diseases can be controlled by the same fungicides. The timing of protective fungicides for these diseases is also the same.

Depending on the weather and the year, one disease may be more severe than another. All fungal diseases depend on some form of moisture on the plants to enable the diseases to develop. It could be rain, high humidity, fog or

leaves getting wet from overhead irrigation — especially if watering occurs late in the day



Early blight

or in the evening when plants could stay wet overnight — that gives fungi a foothold.

Septoria leaf spot

This is one of the most common diseases of tomatoes in Michigan. This disease can kill the plant but does not damage the fruit.

Leaves: Septoria begins on the lowest leaves on the plant. Small, dark spots are the first sign. Then the spots develop yellow halos. Leaves turn yellow, then brown, and dry before falling off. The disease spreads from lower leaves upward on the plant.

Fruit: The fruit is not damaged by the disease, but it may become sunburned from lack of leaves.

Weather: Usually hot and humid.

Early blight

The fungus that causes this disease overwinters in plant debris and seeds. Diseased plant material must be destroyed. Plant and fruit will exhibit damage.

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Leaves: Dark spots appear first on older leaves and develop a bull's-eye appearance as they enlarge. With many lesions, leaves turn yellow and fall off. Dark lesions can occur on stems.

Fruit: Infection usually occurs at the stem end of the fruit, causing dark brown, leathery spots with concentric rings. Infected small fruit fall off. In humid weather, fruit can be covered with a black, velvety coat of spores.

Weather: Humid or rainy; cool weather (less than 70 degrees F) or warm weather (75 to 85 degrees).

Late blight

This is one of the most devastating and rapidly developing tomato diseases, but it occurs sporadically.

Leaves: The first sign is pale green to brown spots on the leaves, often with a purplish cast. Spots enlarge, turn dark brown to purple-black, and the leaves shrivel and die. Often, pale yellow or green halos encircle the enlarging lesions. Lesions on stems grow rapidly and kill the stem. Plants die within several days. Decaying plants have an unpleasant odor.

Fruit: Rotting often begins near the stem. Gray-green to brown, irregularly shaped spots appear and rapidly grow. The rotted portion is leathery and uneven.

Weather: Cool and moist. Potatoes can also be infected by this fungus.

Anthracnose

This disease causes rotting of ripe fruit. It can also cause high mold counts if diseased tomatoes are canned. Anthracnose is often not as common as the other three diseases.

Leaves: The leaves are not damaged.

Fruit: Early symptoms are small, slightly depressed, water-soaked round spots. Spots enlarge, become more sunken and develop concentric rings. There may be tiny, black spots within the lesions. Spots can run together, and large rotten areas may appear.

Weather: Anthracnose can happen under a wide range of weather conditions, but some moisture is necessary. The disease may follow damage from a hailstorm or blowing sand that damages the skin of the fruit.

CONTROL

It is important to use a recommended fungicide to prevent these fungal diseases. To successfully prevent them, begin spraying when the first tiny fruit appear. Repeat once a week or follow label directions.

Keep in mind that overhead watering or rain will wash off the applied protective fungicides. They will have to be reapplied or the protection is lost.

	Chemical ingredient	Possible brand name (maker)
Conventional fungicides	Chlorothalonil	Vegetable Disease Control (Ortho) Daconil (Ortho) Fungonil (Bonide)
	Captan	Orthocide (Ortho)
Organic fungicides	Biological — bacterium	(Agraquest) Serenade
	Sulfur	Various brand names

IMPORTANT: Fungicides are **preventive** — once the leaves or fruit are showing spots or are incubating a fungus, fungicides cannot cure them.

When using pesticides, read and follow all label directions.

Use of chemical names does not imply endorsement of these products by MSU Extension.

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