

TOP 7 TOMATO PESTS & DISEASES:

A Guide to Identifying
and Treating Common
Garden Foes



BLOSSOM END ROT

Blossom End Rot is a physiological disorder caused by inadequate levels of calcium in developing fruit and can occur at any stage of fruit development.



SYMPTOMS

Small, water-soaked areas on the blossom end of immature, green fruit that develop into large, brown to black, dry and hard, leathery areas over time

PREVENTION

Avoid over-fertilization during early fruiting, mainly with fertilizers that use ammonia as a nitrogen source

Avoid frequent, shallow waterings - water less frequently and deeply

If the problem is a lack of calcium in the soil, add bone meal, gypsum, or dolomitic lime but remember that calcium additions will not be immediately available to plants

For immediate use, spray the fruit trusses with 0.5-0.8% solution of calcium nitrate as soon as possible, paying particular attention to even application of liquid to the fruit

HORNWORMS

These large caterpillars often reach 5 inches in length and are most easily identified by the “horn” protruding from the tip of their abdomen. Hornworms do not spin a cocoon and depending on your area, are active during the spring and fall.



SYMPTOMS

These large caterpillars will eat, and eat, and eat, and eat not only tomato plants but eggplant, potato, and peppers.

You will see frass (fancy word for bug poo) and lots of little munch marks on your leaves.

Stems with have wilted leaves or no leaves at all.

PREVENTION

These can easily be plucked off and relocated to a less worthy plant, but can also be disposed of at your discretion. There are also many biological controls available on the market that you can use such as a *Bacillus thuringiensis* (Bt) application.

BACTERIAL SPOT

Bacterial spots on tomatoes are the most dangerous in hot and humid weather conditions.

Affected fruits are very often unusable for fresh consumption or processing.



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SYMPTOMS

Initially watery, dark green, and later dark brown, small (<1/8 inch/1-2mm), irregular spots on leaves, surrounded by a yellowish border

Centers of the leaf spots can fall out and small holes appear in the leaves.

Lesions in the form of small, brown, round spots also appear on the stems and flower calyx. Spots are slightly raised, crusted, dark brown in color, and often surrounded by a waxy white border.

PREVENTION

Select high-quality, certified, disease-free seeds resistant to bacterial spot.

Hot water treatment, and a diluted bleach solution should be used while saving seeds.

Avoid excessive watering and touching seedlings.

Disinfect greenhouses, tools, and equipment.

After growing season, all plant residues should be burned or buried deeply. Take a break for at least one year and don't grow tomatoes in the same place.

FRUIT WORM

This moth species belongs to the dreaded family of moths called Noctuidae. Within this family, you can find other agricultural pests often referred to as cutworms.



SYMPTOMS

Tomato fruit worms typically attack buds, flowers, and fruits of tomato plants. Deep holes in tomatoes are generally indicative of fruit worm activity.

PREVENTION

Prevention as monitoring adult activity with pheromone or light traps is the easiest form of control.

Insecticidal soaps and oils, as well as a Bt (*Bacillus thuringiensis*) product, can be effective, but many people resort to pesticides.

Know that once larvae enter the tomatoes, insecticides are not effective, so only use them as a last recourse after other methods have been tried.

GRAY MOLD

Gray Mold lives primarily on dead or decaying organic matter, but in favorable conditions such as excessive humidity, this fungus can very quickly become an aggressive parasite on healthy plants.



SYMPTOMS

Gray-green or yellowish spots that appear on infected leaves first, gradually increasing in size until a fluffy gray bloom appears, then the leaves dry up.

Small, black sclerotia (compact masses of spores) can sometimes be observed on the surface of the affected tissue.

In early spring crops, infection occurs in the lower parts of the tomato stem, just above the ground. Later, the stem under the infection becomes hollow.

PREVENTION

Thorough cleaning of garden spaces, greenhouses, and contaminated tools is crucial in staving off infection.

It's best to use drip irrigation and water early in the morning to keep the plants and soil dry at night.

Remove old and infected leaves to improve airflow and be sure not to create open wounds, which would be more susceptible to infection.

Plants can be treated with alternating fungicides (Daconil, Copper, Neem, and Mancozeb are a few fungicide options).

APHIDS

Aphids are small, soft-bodied, pear-shaped insects known to transmit almost 200 plant diseases which cause the most devastation to gardens and crops. Damage is hard to spot until you have large populations.



SYMPTOMS

Their piercing-sucking mouthparts suck sap causing yellowing or dry leaves but most of the damage is indirect.

They excrete a sugary product known as honeydew that causes some leaves to be sticky or encourages the growth of sooty mold.

PREVENTION

Focusing on the undersides of leaves and “nooks”, spray a good amount of water to knock them off.

You can use insecticidal soaps and neem oil to cut down populations.

Beneficial insects available to buy and release to control populations.

Pesticides are available and are only suggested to be used carefully and mindfully during heavy infestations.

POWDERY MILDEW

Powdery Mildew can attack tomatoes at all stages of development, even small seedlings in the cotyledon stage, but it is most commonly seen in older plants.



SYMPTOMS

Small, round, white spots on the upper side of the leaves, gradually covering almost the entire surface of the leaf blades with a white, powdery coating.

The powdery coating is also visible on the stems, petioles, and calyx sepals and sometimes it covers the underside of the leaves. Yellow spots may appear on infected leaves.

PREVENTION

To biologically protect tomatoes against powdery mildew, use a preparation containing lecithin.

The most effective chemical controls are sulfur, triflumizole, dinocap, chlorothalonil, daconil, and imazalil.

For chemical powdery mildew controls to be effective, spraying should be started as soon as possible after noticing single white spots on the leaves.

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