

Tomato Problems: Early Blight

A common problem in many home gardens is a plant disease called Early Blight of tomato, caused by the fungus *Alternaria solani*. It is also common on potatoes. This disease can cause a major loss by infecting the fruits and indirect losses by reducing plant vigor.

Early Blight produces a wide range of symptoms at all stages of plant growth: the most common are stem cankers, leaf spots, and fruit rot. The classic symptoms occur on the leaves where circular lesions up to 1/2" in diameter are produced. Dark, concentric circles can be seen within these lesions. The leaf blight phase usually begins on the lower, older leaves and progresses up the plant. Infected leaves eventually wither, die, and fall from the plant.

Lesions may form within 2-3 days or the infection can remain dormant awaiting proper conditions (60 degrees F and extended periods of wetness, such as provided by rain, mist, fog, dew, irrigation). Infections are most prevalent on poorly nourished or otherwise stressed plants. The fungus spends the winter in infected plant debris in or on the soil where it can survive for several years. It can also be seed borne. The spores are transported by water, wind, insects, other animals including man, and machinery. Once the initial infections occur, they become the most important source of new spore production and are responsible for rapid disease spread. To control the disease, irrigate the plants early in the day so the leaves will dry before night time. Healthy plants with adequate nutrition are less susceptible to the disease. Hand picking infected foliage may slow the rate of disease spread, but should not be relied on for control. Removing the lower leaves helps avoid soil from splashing onto the leaves nearest the soil. A plastic or organic mulch works in the same way. Do not work in a wet garden. Preventative sprays of a fungicide containing chlorothalonil used on a seven to ten day schedule gives effective control.

Be sure to watch the leaves of your tomato plants for any sign of the circular spots made up of concentric rings.

Disclaimer -The most reliable information was included that was available at time this information was compiled. Due to constantly changing laws and regulations, UMass Extension can assume no liability for recommendations. The pesticide user is always responsible for the effects of pesticide residues on their own crops, as well as problems caused by drift from their property to other properties or crops. **Always read and follow all instructions on the label.**

WARNING! PESTICIDES CAN BE DANGEROUS. Read and follow all directions and safety precautions on container labels. Handle carefully, and store in original containers with complete labels, out of reach of children, pets, and livestock.

UMass Extension Agriculture and Landscape Program 4/12