

ALABAMA COOPERATIVE EXTENSION SYSTEM/ LIMESTONE COUNTY OFFICE

The Garden Spot
For week of June 15, 2009

Tomato Diseases are Appearing

Backyard garden tomatoes are growing rapidly. Many plants have been blooming and we're now seeing small fruit setting on the vines. With the anticipation of those good tomato, bacon, and lettuce sandwiches, we need to be alert to the possibility of a number of diseases and conditions which affect tomato plants.

Early season problems may begin with **Blossom End Rot**. Blossom-end rot is a physiological disorder, not a disease. It is easily identified as a brown, leathery rot developing on or near the blossom-end of the fruit. It is caused by calcium deficiency, used induced by fluctuations in the plant's water supply. To prevent it, keep the pH of the soil at 6.0 to 6.5. Perform a soil test and apply the recommended rate of lime, preferably before planting. Be consistent in your watering. Tomato plants need about 1.5 inches of water per week during fruiting.

Foliar, Virus, and Wilt Diseases affect tomato production every year. Disease incidence can range from a few scattered plants in your garden to a total crop failure. Mixed infections can even occur. While it is impossible to discuss all types of diseases in one article, we will address a few of the most common ones.

Early Blight is the most common and wide-spread foliar disease on tomatoes. On young plants, dark brown, irregular lesions form and completely encircle the stem, causing plants to quickly wither and die. On older plants, the lesion is restricted to one side of the stem. Early blight is a fungus that affects leaves throughout the summer. As

plants begin to grow and leaf material fills in and touches other plants, air circulation is reduced. When the fungus is present, lower leaves begin to turn yellow and contain dark brown circular spots.

Septoria Leaf Spot is often seen during the spring and fall months. Favored by moderate temperatures and humid conditions, it becomes less severe during the hot summer months. Septoria leaf usually appears after plants begin to set fruit. Small-water-soaked, circular spots first appear on older leaves and develop into lesions with white-gray centers. This disease can completely defoliate the plant.

Virus disease symptoms also may appear late in the season. Small white or yellow rings on ripening fruit indicate the presence of tomato spotted wilt virus. Although the fruit is edible, the disease may affect flavor and fruit production.

Fusarium Wilt is caused by the soil-borne fungus *Fusarium oxysporum* and initially causes a yellowing and wilting of lower leaves. Symptoms can be seen on a single branch, or on several branches. The yellowing and wilting progress up the plant as the fungus spreads within its host. Eventually the plant wilts and dies early, producing few, if any, fruit.

The best treatment for these diseases is to prevent them. Plant disease-free seeds or transplants. At the end of the growing season, remove or burn old tomato plants to prevent disease carryover. Keep tomato plants healthy and vigorous by follow a good fertility and weed control program.

Follow a regular spray schedule using fungicides for fungal diseases. For a list of recommended fungicides, contact the Extension Office and request a copy of publication ANR-71 (Foliar Diseases of Tomatoes). Other publications that may be helpful include ANR-797 (Wilt Diseases of Tomatoes), ANR-1059 (Blossom-End Rot in Tomatoes); and ANR-836 (Virus Diseases of Tomato). Publications may be picked up at the Extension office at 1109 W. Market Street, Athens, or obtained through the Extension Website www.aces.edu/publications . There is no fee for these publications, but they cannot be mailed.

To identify tomato diseases or for assistance with other home garden questions, call the Limestone County Master Gardeners at 232-5510. They work the Master Gardener HelpLine Monday, Wednesday, and Fridays from 9 a.m. until 1 p.m.



Fusarium wilt



Tomato Spotted Leaf Virus

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