

## Controlling Common Tomato Diseases

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Nothing is better than a home-grown, garden tomato, but growing tomatoes does have some pitfalls, including disease problems. Tomatoes are attacked by both fungi and bacterial diseases that affect the leaves, petioles and stems and cause blemishes on the fruits.

Loss of foliage due to disease, causes the tomato plant to be less productive or vigorous. Severe foliage loss can lead to sunscald on developing tomatoes, which are suddenly exposed to more intense sunlight. If foliage diseases are not controlled, they can lead to death of the plant.

Common diseases of tomato include septoria leaf spot, early blight, bacterial speck and bacterial spot.

Septoria leaf spot begins as tiny black dots on the leaves, enlarging to small circular spots

with a dark margin and gray center. Infected leaves turn yellow and die. Early blight appears as irregular, dark brown areas on the leaves with concentric, black rings developing in a target-like pattern as

the spots enlarge. Early blight can spread very rapidly. Bacterial speck appears as tiny, pinhead sized, black specks on tomato leaves and fruits. Bacterial spot is very similar to bacterial speck, but the leaf and fruit spots are slightly larger. On tomato fruits, bacterial spot results in slightly raised, brown, scabby lesions.

One of the most common sources of infection for tomato leaf spot diseases is through rain splashing on bare soil. All of the diseases mentioned above overwinter on infected plant debris in the soil. During a rainstorm, water droplets hit the soil surface, splashing water and soil up onto the lowest tomato leaves. Prevent rain splash in your

garden by covering the soil with mulch. Mulch plants with clean straw, grass clippings, wood chips or any other coarse organic material. Mulch also helps suppress weed growth, moderates soil temperature extremes and helps retain soil moisture.

Suppression of leaf spot diseases, once plants have been infected, can be accomplished through sanitation and the application of fungicides. As soon as leaf spot diseases are noticed, remove the affected leaves and begin a fungicide spray program. Read and follow label directions carefully, including how often to reapply the fungicide product and the number of days that must pass after application before tomatoes can be harvested.

Keep tomato leaves as dry as possible by applying water to the base of plants instead of through an overhead sprinkler, since water on the leaf surface promotes germination of fungal spores and leaf infection.

### FOR MORE INFORMATION

Neb Guide 1391, "Diseases of Home Garden Tomatoes" available at the extension office or online at <http://ianrpubs.unl.edu/PlantDisease/g1391.htm>



Bacterial speck



Bacterial spot



Septoria Leaf Spot



Early blight on tomato leaf

Clemson University - USDA Cooperative Extension Slide Series, www.forestryimages.org

## Bagworm Control Too Late Now

Bagworms can cause a great deal of damage during the last few weeks of feeding, and gardeners may be tempted to spray for them now. But late August sprays are totally ineffective. Understanding the life cycle of this moth will explain why and can help tremendously in planning effective control measures.

Bagworms normally finish feeding and close up their bags in late summer. After that, insecticides are ineffective because they cannot reach the pest. Egg hatch does not occur until the next spring, usually late May. Insecticide sprays are more likely to be effective if applied when the bagworms are small. Even *Bacillus thuringiensis* (Dipel, Thuricide) can be effective on young bagworms. Other commonly used pesticides include Orthene, cyfluthrin, permethrin, malathion and Sevin. During most years, a spray about June 15 will give good control. Do not forget, insecticides are not the only means of control. Hand picking and destroying the bags is effective any time of year the bags are large enough to be picked.

—Mary Jane Frogge, Extension Associate



Bags at completion of larval development

Lacy L. Hyche, Auburn University, www.forestryimages.org

Nebraska Herbal Society & Pioneers Park Nature Center  
present

## A Morning with Herbs

Saturday, Aug. 27 • 9 a.m.–Noon  
Pioneers Park Nature Center

9 a.m. — Short Herbal Society business meeting  
9:20 a.m. — Tour of the Nature Center's Louise Evans Doole Herb Garden  
10 a.m. — WORKSHOP: AN HERBAL KITCHEN BOUQUET  
Create a bouquet from fresh herbs for culinary use or dried as a wall decor. Other herb crafts will be on display with instruction hand-out sheets.  
11 a.m. — WORKSHOP: THE TASTE OF OREGANO  
Explore the many culinary uses of oregano, the 2005 Herb of the Year. The workshop will include demonstrations, samples and recipes.

The meeting and tour are free, there is a charge for the two workshops which must be prepaid.  
\$5/Herb Society member; \$8/non-member  
Call 441-7895 by Aug. 22 to reserve your place.



## Versatile Nasturtiums — Easy to Grow

The nasturtium is a versatile plant used for edging in flowerbeds or in window boxes, patio containers or hanging baskets. The abundant, colorful blooms are edible and can be cut for use as an elegant entree garnish or salad decoration. The leaves, which contain a good dose of vitamin C, can be used to add a peppery flavor to fresh salads.

'*Tropaeolum minor*,' the scientific name for the nasturtium, comes from the Greek word meaning "to twine," which is descriptive of some of the 50 species in this genus. Nasturtium was first found growing in Mexico and Peru where it was used instead of cress to flavor foods. It was brought to Europe in the 16th



Photo © Br. Alfred Brousseau, Saint Mary's College

century and considered a symbol of conquest and victory in battle. Victorian women later used it in tussie mussies to ward off bad smells.

Nasturtiums come in three types: dwarf, semi-trailing and single-flower climbing. Dwarf types are bushy and compact and include the cultivars 'Alaska,' 'Empress of India,' 'Strawberries and Cream' and 'Whirlybird.' Semi-trailing types reach a length of two to

three feet, making them ideal for hanging baskets. The single-flower climbing types like, 'Jewel of Africa,' send out six to eight foot runners that climb trellises like vines. Colors of this type are bright and range from yellow and orange to rose and

crimson. Vines are strong and have fragrant flowers. Nasturtium is one of the easiest flowers to grow from seed. The best flowering will be in full sun, but they will tolerate partial shade. Seeds can be sown directly in the garden beginning in late April. Nasturtiums are not choosy about their soil. Do not spoil them with rich, fertile soil and fertilizers as this will only result in lush foliage and few blooms.



### Things to do this month

- Check deciduous trees for fall webworm. Use a broom or rake to get them out of small trees.
- Check on water needs of hanging baskets daily in the summer. Wind and sun dry them much more quickly than other containers.
- Clean up fallen rose and peony leaves. They can harbor disease and insect pests over the winter if allowed to remain on the ground.
- Mound soil over the lateral or brace roots of corn stalks for extra support against strong winds.
- Pick summer squash and zucchini every day or two to keep the plants producing.
- Hand pick bagworms from your evergreen and deciduous trees.
- Remove old vegetable plants which have stopped producing to eliminate a shelter for insects and disease organisms.
- Water the garden early in the day so plants can absorb the moisture before the hot sun dries the soil. Early watering also insures the foliage dries before night. Wet foliage at night increases susceptibility to fungus diseases.
- Many herbs self-sow if the flowers are not removed. Dill produce seeds that fall around the parent plant and come up as volunteers the following spring.
- To reduce the number of pests on your fruit tree for the coming year, pick up and destroy all fallen fruit.
- Bt (*Bacillus thuringiensis*) is used by many gardeners to protect cole crops from chewing caterpillars.
- White flies are attracted to yellow, so use yellow sticky boards to reduce their populations.
- Every weed that produces seed means more trouble next year. Control weeds before they go to seed.
- Do not add weeds with mature seed heads to the compost pile. Many weed seeds can remain viable and germinate next year when the compost is used.