

Black Spot Infestation on Roses

Black spot is a common fungus found on roses during the spring and summer. Therefore, it is important to look for symptoms of black spot early and learn the proper techniques to keep it from harming plants and spreading to other plants in future years.

Black spot is spread by poor sanitation in flowerbeds. The fungus produces spores that overwinter on fallen leaves and diseased rose canes. These spores are easily transported from place to place by rain splash in spring. When it rains, water splashes from the infected plant debris onto the underside of new healthy leaves, carrying fungal spores with it.

Symptoms of black spot normally begin to appear in the spring when humidity levels are high and foliage dries off slowly following rain or overhead irrigation. On average, it takes only one day for spores to infect a plant and four to five days for symptoms to show. The leaves of an infected rose bush will turn yellow and develop black dots. Black spot initially stunts plant growth. However, if left unattended, it may eventually kill the plant.

The only effective method used to treat an infestation is to follow a regular spray program. Even with this treatment, however, black spot will typically return in subsequent years if environmental conditions are



Leaves of a rose bush infected with black spot will turn yellow and develop black dots.

Vicki Jeelicka, UNL Extension in Lancaster County

favorable. Therefore, it is a good idea to stop black spot before it starts.

The key to preventing black spot is to clean rose beds in the fall to get rid of any debris in which spores may overwinter and again in the spring to remove leaves that may have blown into the plants. Remove last year's mulch and replace it with fresh mulch. Select roses that are resistant to black spot to reduce or eliminate the need for a spray program.

Remove leaves throughout the growing season as symptoms of black spot begin to appear. To be successful, fungicide applications must be made preventatively to healthy

foliage. The fungicide provides a protective barrier that kills fungal spores on the leaves as they germinate and begin to grow. On high value plants with a history of black spot infection, fungicide applications should begin as soon as foliage emerges in spring and continue throughout the summer at frequent intervals. Refer to the fungicide label for reapplication recommendations. Several fungicides can be used, including Funginex. Fungicide control will not be effective if good cultural and sanitation practices are not followed.

Source: Kim Todd, UNL Landscape Horticulture Specialist.

Billbugs on Turf

Plants Affected:

Primarily Zoysiagrass and Kentucky Bluegrass

Description:

Billbugs are not true bugs but long-snouted weevils. The adult may cause some minor feeding damage to the turfgrass but the "grub" is the stage that can cause serious problems. Billbug grubs are legless and are a creamy-white color with a brown head.

Eggs are laid on blades of grass through late spring and early summer. The young larvae tunnel up and down the stem until they become too large and drop to the ground where they begin to feed on crowns and roots. Maturing larvae may feed several inches deep in the soil.

If billbug damage is suspected, inspect the turfgrass crowns. Infested plants are easily pulled up and separate at the soil surface. The crown area is swollen, hollowed out and ragged with frass (a sawdust like material) present. Digging



Adult Bluegrass Billbug (magnified)

do not cause significant turf damage.

Start looking for the adults when the surface of the soil approaches 65 to 68 degrees F. They will often be seen crawling on sidewalks at this time. Spraying for the adults is normally done in late April to May.

Grub damage is often first seen about mid-July. The effectiveness of control is dependent on whether the insecticide reaches the billbugs. If larvae are still inside the stems or if they are deeper than the insecticide reaches, the chemical will be ineffective.

Source: Kansas State Research and Extension

into the soil will often reveal the grubs.

Recommendations:

Billbugs are one of our most difficult turfgrass insects to control. The adults are well armored and do not ingest insecticide while penetrating a grass stem during feeding. The grubs spend much of their lives boring inside grass stems where they are protected from insecticide sprays. However, adults are easier to control than the grubs because they feed on top of the soil where they are more easily contacted by insecticides. Unfortunately, most people don't notice them because they

FOR MORE INFORMATION

UNL Extension in Lancaster County educational resource "Bluegrass Billbugs" available at the extension office or online at <http://lancaster.unl.edu/hort/factsheets/085.shtml>

Bagworm Control

Mary Jane Frogge
UNL Extension Associate

Bagworm eggs hatch in early June and young worms will begin to feed on junipers, cedars and arborvitae in eastern Nebraska. Bagworms also occur on various deciduous trees such as flowering crabs, plums, linden and cotoneaster. The bags attached to the trees now are those left over from last year and are empty, except for the remaining egg masses that will finish hatching. The worms are very tiny, probably 3/8-inch in length or less, and each contained inside a small protective sack or bag which they construct of silk and plant material. At this stage, the larvae are susceptible to insecticides; but after 6 weeks, they will be more difficult to control. Suggested materials are carbaryl (Sevin), permethrin (Eight) and various formulations of "BT" (Dipel, Thuricide). Follow label directions and be sure to spray trees and shrubs thoroughly to penetrate foliage. Good coverage is essential if control is to be effective.




In June, bagworm larvae are susceptible to insecticides.



Bagworm bags at completion of larval development (pictured) are difficult to control.

Lacey L. Hyeche, Auburn University, www.forestryimages.org



Garden Guide

THINGS TO DO THIS MONTH

By Mary Jane Frogge, UNL Extension Associate

Plan a landscaping project on paper first. Do not overplant. Be sure you know the mature size of each plant and allow for growth.

Lawns maintained at the correct height are less likely to have disease and weed infestation. Kentucky bluegrass and tall fescue should be mowed at approximately three inches in height. Mow frequently, removing no more than one third of the blade at each cutting.

Grass clippings can be used as a mulch in flower beds and vegetable gardens if allowed to dry well before use. Never use clippings from a lawn that has been treated with a herbicide.

Cabbage loopers and imported cabbage worms are green worms. They eat large holes in the leaves of plants in the cabbage family. For control, caterpillars can be picked off by hand or sprayed with BT (*Bacillus thuringiensis*), a natural, non-toxic preparation available by various trade names.

Make successive plantings of beans and sweet corn to extend the harvest season.

Harvest rhubarb by cutting or by grasping the stalk and pulling up and gently to one side.

Grow your own dried flowers. Raise statice, globe amaranth, straw flowers and other everlastings to provide flowers for this year's arrangements.

Plant gladioli bulbs in late May.

Set out marigold, petunia, ageratum and fibrous begonia transplants. All are good border plants.

To grow annuals in containers on the patio, use a light weight soil mixture. Keep the plants well watered, because the soil dries out fast. Apply a water soluble fertilizer according to package directions every two weeks.

Plant ground covers under shade trees that do not allow enough sunlight to grow grass. Vinca minor or English ivy are ground cover plants that grow well in shade.

Mulch around newly planted trees and shrubs. This practice reduces weeds, controls fluctuations in soil temperature, retains moisture, prevents damage from lawn mowers and looks attractive.

When you visit botanical gardens and arboreta, take your camera and notepad with you. Plan now for changes you will make in your landscape.

For maximum landscape interest in a small, vertical space, try annual vines. They can disguise ugly walls and fences. When trellised, they can create shade and privacy while hiding undesirable views. Try morning glory, nasturtium vine and scarlet runner bean.

Newly transplanted vegetable plants should be protected from cutworms with collars. Cut strips of cardboard two inches wide by eight inches long, staple them into circles and place them around the plants. Press the collar about one inch into the soil. These collars will fence out the cutworms and protect the stems of the vegetable plants.

Stay out of the garden when the vegetable plant leaves are wet. Walking through a wet garden spreads disease from one plant to another.

Four or five layers of newspaper will serve as an effective mulch in the garden. Cover it with grass clippings or straw to prevent it from blowing away.

Put tools away at the end of the day. Clean them and hang them up so they are ready to use and easy to find when you need them.

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