Video of the Week: Watering Container Gardens

FLOWERS

Blackspot of Roses

A common disease of roses is blackspot, a fungus disease that can cause defoliation of susceptible plants. Look for dark, circular lesions with feathery edges on the top surface of the leaves and raised purple spots on young canes. Infected leaves will often yellow between spots and eventually drop. The infection usually starts on the lower leaves and works its way up the plant.

Blackspot is most severe under conditions of high relative humidity (> 85%), warm temperatures (75 to 85 degrees F) and six or more hours of leaf wetness. Newly expanding leaves are most vulnerable to infection. The fungus can survive on fallen leaves or canes and is disseminated primarily by splashing water.

Cultural practices are the first line of defense.

1. Don't plant susceptible roses unless you are willing to use fungicide sprays. For a list of blackspot resistant varieties, go to: http://www.ppdl.purdue.edu/ppdl/weeklypics/3-22-04.html

2. Keep irrigation water off the foliage. Drip irrigation works well with roses.

3. Plant roses in sun in areas with good air movement to limit the amount of time the foliage is wet.

4. Remove diseased leaves that have fallen and prune out infected rose canes to minimize inoculum.
If needed, protect foliage with a regular spray program (10- to 14-day schedule) of effective fungicides. Recommended fungicides include tebuconazole (Bayer Disease Control for Roses, Flowers and Shrubs), myclobutanil (Immunox, Immunox Plus), triforine (Funginex), thiophanate methyl (Fertilome Halt) and chlorothalonil (Broad Spectrum Fungicide, Garden Disease Control, others). (WU)

**Deadheading Flowers**

Some plants will bloom more profusely if the old, spent flowers are removed, a process called deadheading. Annuals especially, focus their energy on seed production to insure that the species survives. If you remove old flowers, the energy normally used to produce seed is now available to produce more flowers. Perennials can also benefit by lengthening the blooming season. However, some gardeners enjoy the look of spent flowers of perennials such as sedum or purple coneflower. Also, the seed produced can be a good food source for birds.

Not all plants need to be deadheaded, including sedum 'Autumn Joy', melampodium, impatiens, most flowering vines, Lythrum, periwinkle (Catharanthus), and wishbone flower (Torenia). Those that do increase bloom in response to deadheading include hardy geraniums, coreopsis, petunias, marigolds, snapdragons, begonias, roses, campanulas, blanket flowers, delphiniums, zinnias, sweet peas, salvia, scabiosa, annual heliotrope, geraniums (Pelargonium), and yarrow.

Deadheading is easily accomplished by removing spent flowers. With some plants, pinching between a thumb and finger can do this, but tough, wiry stems will require a scissors or pruning shears. (WU)

**VEGETABLES**

**Onions Developing**

This is the time of year that onions grow and develop rapidly. Regular watering (if needed) and a light fertilization are helpful to maximize growth. Onions develop so that as much as 2/3 of the bulb remains out of the soil. There is normal and there is no need to cover the bulb with soil.

Onions are nearing harvest time when the tops begin to fall over. You may wish to break over the tops that haven’t fallen to encourage drying of the neck. Allow a few days to pass and then dig the
onions to insure they don’t sunburn. Temporarily store them in a dry, well-ventilated area for a week or two before cutting the tops to insure the necks are completely dry. Remove the foliage (or braid the leaves) and store in a cool, dry location. (WU)

FRUIT

"Tip" Blackberries, Black Raspberries and Purple Raspberries

The growth and fruited habits of blackberries and raspberries are the same. The root system is perennial, surviving many years, but the canes are biennial. First-year canes are called primocanes. They emerge from the soil and grow but do not fruit. Primocanes become floricanes the second year. Floricanes fruit and then die. Each cane lives only two years. Pinching (tipping) the top 2 to 3 inches of the primocanes increases branching and fruited the next year. Blackberries not grown on a trellis are normally tipped when they reach 3 to 4 feet. Trellis-grown blackberries are tipped when primocanes are 10 to 12 inches above the top wire. Black or purple raspberries are tipped at 30 to 40 inches if trellised, and 24 to 30 inches if not supported. Red raspberries are not tipped. (WU)

ORNAMENTALS

Lecanium Scale

There are about a dozen different species of soft scales collectively known as lecanium scale. But life histories are similar enough to treat them as a single entity for the purposes of this article. Normally, damage from lecanium scale is slight with "honeydew" raining down on anything under affected trees. Sooty mold, a fungus that feeds on the honeydew, can turn branches and leaves black. Branch dieback is possible with large populations. Predators and parasites normally keep lecanium scale under control, but there are times when the population of beneficials is too low to provide immediate control. In such cases, the natural inclination is to use pesticides. Unfortunately, later instars and adults are virtually impossible to control with insecticides. Only the crawler stage is susceptible, and the time of crawler emergence varies from year to year. Conventional wisdom is that it is best to allow beneficial populations to rebuild and provide control. As a matter of fact, many times insecticides have been part of the problem because sprays have killed beneficials and allowed lecanium populations to grow unchecked.
If you still feel insecticides are necessary, target the crawler stage as it migrates from the dead mother's body to the leaves. This usually occurs about the time yucca plants flower. Trapping adults has shown that people in Wichita should apply treatments no earlier than June 10 and again 10 days later. Registered products include permethrin (numerous trade names) cyfluthrin (Tempo, PowerForce Multi-Insect Killer Concentrate), carbaryl (Sevin) and malathion. Though too late to apply now, imidacloprid (Annual Tree and Shrub Insect Control, Max Tree and Shrub Insect Control, Bonide Systemic Granules IC, Bayer Tree and Shrub Insect Control) can be applied in the fall. (WU)

PESTS

Clover Mites

There have been a number of inquiries associated with homes being invaded by populations of the clover mite, Bryobia praetiosa. In fact, this is the time of year when clover mites are crawling around and entering homes, apartments, and office buildings; in which they can invade buildings in large numbers. Clover mites, in general, enter buildings from the sunny side or southwest exposures. They are primarily a nuisance pest because they don’t bite humans. However, clover mites will leave a red stain when accidentally or purposely crushed.

Clover mite populations consist of only females since males have never been found. Adult clover mites are slightly larger than a pinhead (1/30-inch long), red in color, with extremely long, pink front legs, which may be used to distinguish clover mites from other mite pests. They overwinter as eggs in protected locations. There is usually one generation per year. Clover mite adults feed on over 200 plant types including clover, grasses, ivy, honeysuckle, apple, and elm. They will build up to extensive numbers in well-fertilized turfgrass, and their feeding will cause turfgrass to appear silvery or frosty. There has been an increase in clover mite inquiries, which may be associated with housing developments and the installation of well-fertilized turfgrass growing near the foundation of homes.

Management options that may be implemented to avoid having to deal with clover mites include 1) remove turfgrass near building foundations; 2) place an 18 to 36-inch wide band of an inorganic mulch around the foundation; 3) mow and trim turfgrass as short as possible; 4) avoid over-fertilizing turfgrass, especially with soluble nitrogen-based fertilizers; 5) remove weeds growing near the foundation of buildings; 6) remove ivy or other host plants growing around the foundation and walls; 7) use foundation plants that are not typically attractive to clover mites such as marigolds, petunia, geranium, arborvitae, and/or yew; and 8) caulk or seal cracks or openings in the foundation. Clover mites detected inside can be vacuumed up; however, be careful to not crush them. Soapy water will kill clover mites on contact. Consult a pest management professional for recommendations regarding perimeter treatments of pest control materials that will keep clover mites from entering homes or buildings. (RC)
Dealing With Caterpillar Pests

This is the time of year when a variety of caterpillar pests including imported cabbage worm and cabbage looper may be found feeding on vegetable crops. So what can you do? There are a number of pest control materials that can be used to alleviate damage caused by caterpillars including Bacillus thuringiensis spp. kurstaki or BtK (Dipel, Thuricide, and BT Worm Killer), spinosad (Captain Jack’s Deadbug Brew and Lawn and Garden Spray), and pyrethrin (Pyrethrin Garden Insect Spray). BtK is a soil-borne bacterium that is only active on caterpillars. Caterpillars have to ingest the material in order to be killed—it has not contact activity. It is important apply when caterpillars are small since they don’t have to consume as much material in order to be killed. When caterpillars are larger, more material has to be consumed and as such the caterpillars can still cause plant damage. Since BtK is only active on caterpillars there is less direct impact on natural enemies. The material is susceptible to ultraviolet light degradation and rainfall so repeat applications may be needed.

Spinosad is composed of spinosyns A and D, and is derived from the micro-organism Saccharopolyspora spinosa. This material is active on a wide-range of different caterpillar pests. It works as both a contact and stomach poison; however, it is most effective when ingested. Spinosad kills caterpillars quickly and is most active on young caterpillars. Wet sprays of spinosad may be harmful to certain natural enemies; however, toxicity decreases once spray residues dry.

Pyrethrin is a botanically-derived insecticide derived from the flowers of certain chrysanthemum species. Pyrethrin kills caterpillars quickly by contact activity only and has very short residual activity (<24 hours), so repeat applications may be required. When using any of these three insecticides, thorough coverage of all plant parts is important. Also, read the label to determine the appropriate rate that should be used. (RC)

Oak Galls

A number of tiny nonstinging wasps, mites and flies cause abnormal growths to develop on the leaves, twigs or branches of oak trees. These galls can include growths that are round, spiny, flattened, elongated or star-shaped. There are hundreds of different types of galls, each of which is caused by a specific insect. Galls form in response to a chemical that the insect injects into the plant tissue. Eggs laid by a mature female hatch...
into legless grubs around which the gall forms. The larvae feed, develop, and pupate inside these galls. Adults may emerge either the same season or may overwinter inside the gall depending on the life history of that specific insect. Generally, these gall insects do not cause significant damage to their hosts, though some of the leaf galls can cause enough deformity to make a tree unsightly. Also, severe infestations of twig galls can cause twig dieback or, rarely, tree death. However, just because a twig is covered with galls does not mean it is dead. I have seen twigs that looked like a solid mass of galls leaf out in the spring.

Insecticide sprays applied when galls are noticed are ineffective because damage has already occurred. Also, larvae are unaffected because of the protection afforded by the gall. Insecticide sprays can kill emerging adult wasps and flies, but long periods of emergence and short residuals of most contact insecticides make this impractical. Stem and twig galls can be pruned if deemed to be practical and necessary. In short, this is a problem that is best ignored unless pruning is done to improve the appearance of the tree. (WU)

**Periodical Cicadas**

We are seeing the emergence of periodical cicadas at this time. Adult periodical cicadas have a black body and red eyes. Even if the cicada is not noticed the numerous, small, emergence holes often are. Also, the mating call of the male cicada is quite noticeable and continues throughout the daylight hours.

Our last major periodical cicada emergence was in 1998 with the 17-year cicada. If you do the math, you will see we are 4 years early. So what is happening? There are actually two possibilities. First, there is a brood of 13-year cicadas that should emerge this year. However, their range has not included Kansas. Nevertheless, it does come close and it is possible the range has increased. The second possibility is we are seeing a partial emergence of the 17-year cicada early. This happens with some regularity and is known as “stragglers.” Stragglers may be off by one year (small numbers) or by four years (larger numbers). Our stragglers are four years early if, indeed, we have 17-year cicadas. In the final analysis, it really doesn’t matter as the insects are indistinguishable.

Only slight plant damage occurs as the adult cicadas feed. Rather, the major damage results from the egg laying of the females. Females use their saw-like ovipositors to split the bark and splinter the sapwood of small branches to deposit 2 to 4 dozen eggs per site. This damage is severe enough that twigs will wither and die resulting in a symptom known as "flagging." Larger, established trees may show significant flagging, but will recover. On the other hand, smaller trees may be severely injured or killed.

Numbers will be small enough that control measures may not be needed. If deemed necessary, small trees can be protected with nylon mesh or cheesecloth draped over the plant during the egg-
laying period. Start when the males start singing and continue until all singing stops. This will probably be 3 to 4 weeks. Be sure the mesh is no larger and 1/4 inch. Tie the mesh to the trunk so that the cicadas can come up into the tree from underneath.

If the above is impractical, consider chemical controls. Carbaryl (Sevin) and esfenvalerate (Asana) are labeled for periodical cicada control. Sevin should be applied every week. For more information including details on periodical broods, see Bob Bauernfeind’s article in last week’s entomology newsletter at: http://www.entomology.ksu.edu/doc4874.ashx (WU)

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