

IN THE DIRT

How do you effectively control squash bugs in the vegetable garden?



A. Squash bugs are difficult to control in our cucurbit vegetables including zucchini, squash, pumpkins, gourds, melons, and cucumbers. The best option is to kill the adults when they first emerge to manage the population before it explodes. Watch for the eggs as they develop on the underside of the leaves to destroy them before they emerge. Switch to other chemicals for management besides just using "Sevin" for control, which they are becoming resistant to. There are also lures that can be used for them which might help early in the season.

Insect Pests to Watch For

By: Kelly Feehan, Nebraska Extension Educator

As we move into the growing season, think twice before applying insecticides to control insects. Always identify an insect first to determine if it is harmful or even requires control. Protection of beneficial insects like pollinators should be a priority.

The majority of insects we see are harmless or even beneficial. While there are some insect pests we can be watching for, it is important to know what signs or symptoms to look for, what insects cause harm, and which are beneficial or only cause cosmetic injury.

When a plant pest is found that justifies control, select the least toxic method that will prevent plant damage. This may include hand-picking, hosing the pest off, biological controls or insecticides. If insecticides are used, read the label for information on how to apply them to protect pollinators.

Some landscape insects to look for now include bagworms on evergreens, Euonymus scale and pine sawfly. And think twice before applying an insecticide to lawns for white grub control this season. It is only needed if a lawn had unacceptable damage last season.

Evergreen trees, especially spruce and juniper, should be checked for bagworms since eggs have started hatching. Bagworms are not large webs easily seen in trees. They are quite small and a close examination of twigs and needles is needed to find them.



At this time of year, bagworms can be as small as one-fourth inch and difficult to see. They are light brown, triangular shaped, and covered with webbed together needles for camouflage. They are not attached to twigs at this time of year, but moving around on evergreens to feed.

If many bagworms of this size are found, the organic product *Bacillus thuringiensis*, known as B.t., Dipel or Thuricide, is effective in controlling them. More than one application may be needed.

As bagworms increase in size, B.t. is less effective and other insecticides, including acephate, cyfluthrin, or permethrin, may be needed for control. These products are also most effective applied when bagworms are small, typically from mid to late June.

Euonymus scales appear as small, one-sixteenth inch, white leathery spots on euonymus leaves. Males are white and elongated and females are brown and oval shaped. Overwintering females lay eggs that hatch in late-May or early June.

Crawlers, young scales that have recently hatched, move to leaves and stems to begin feeding on plant juices. This stage is when euonymus scale is most easily controlled. Check with a magnifying glass to be sure crawlers are present before treating. If nothing is moving, crawlers are not active.

When crawlers are found, a horticultural oil or insecticidal soap can reduce their numbers. Labeled insecticides include malathion, acephate, permethrin, or Spectracide. Euonymus that are heavily infested or in poor condition are best removed and destroyed.



Monitor pines for pine sawfly larvae. When these worms are small, they scrape the top layer off needles. Individual needles end up appearing brown and twisted. Look for this damage or for the larvae.

Sawfly worms feed in bunches, so a number of larvae will be found close together, usually near branch tips. As larvae mature, they eat entire needles and can strip bare a tree branch or tips of branches. Since this happens before new needles expand, the tree is rarely killed.

The best control for pine sawfly may be to hit the pine branch with a stick to knock sawflies off and reduce feeding. An effective organic product against young larvae is spinosad; as well as horticultural oils and insecticidal soaps. The insecticides Orthene, cyfluthrin or bifenthrin can be used for control. Monitor pine trees and use your choice of control, but only if sawfly larvae are present.

Opossums — Nature's Tick Eaters

Soni Cochran, *Extension Associate*

As North America's only marsupial, opossums are often maligned because they are not the "cutest creature" in our wildlife world.

We know opossums are our neighborhood sanitation workers. They eat rodents, snakes, insects, beetles, slugs, snails and carcasses. Did you know they also eat ticks?



If birdseed is available, opossums will eat it. To discourage them, hang bird feeders on a wire between trees or on a baffled pole. Reduce seed falling to the ground by using feeders that recapture fallen seed.

In areas where blacklegged ticks are found (deer ticks), opossums were a magnet for getting rid of ticks. A normal "tick load" for an opossum in the wild is around 200 ticks. A

study by the Cary Institute for Ecosystem Studies found opossums consume 95 percent of those ticks as they

groom themselves. Researchers estimate in one season, opossums kill and consume about 5,000 ticks.

For the most part, opossums are immune or resistant to rabies, although a few cases have existed. On average, a feral dog is eight times more likely to carry rabies than an opossum.

Here are more fascinating facts about opossums:

- Opossums have the briefest gestation period of any mammal — about 12 days — the blind and hairless newborns crawl into their mother's pouch. They stay in the pouch and nurse for approximately 100 days.
- The male opossum has a bifurcated (forked) penis. Early American colonists believed the forked penis allowed males to breed females through her nostrils, and then the female sneezed her young into the pouch.
- As a marsupial, females have two sets of reproductive organs.
- Opossums are resistant to some venomous snakes including rattlesnakes, cottonmouths and pit vipers. Researchers are studying opossums as they may hold the secrets to anti-venom for humans.
- Opossums are one of the shortest-lived mammals of their size and seldom live more than one year. Automobiles, owls, coyotes and bobcats take their toll on opossums.
- Folks in the southern U.S. tend to drop the "o" — and just say 'possum. However, there really are "possums" — they are members of a separate marsupial family found in Australia and New Guinea.

Sources: National Wildlife Federation, Kansas State Research & Extension News.

Daylily Aphids Appearing Earlier This Year

Daylily aphids, *Myzus hemerocallis*, (Figs. 1, 2) were first reported in Nebraska in 2015, and were noted as fall pests of daylilies in Butler County and surrounding areas. This held true in 2016 as well, but in May 2017 daylily aphids were noted feeding on daylilies in Butler County.



Fig. 1. Daylily aphid – close up of adult.



Fig. 2. Daylily leaf with close up of aphids.

Damage - These aphids are of concern because of the damage they do, which can initially result in leaf yellowing (Fig. 3), and subsequent browning and drying (Fig. 4).



Fig. 3. Yellowing of daylily leaves due to daylily aphid feeding.



Fig. 4. Browning and desiccation of daylily leaves due to daylily aphid feeding

Inspect Your Plants - The first sign of daylily aphids is often the cast skins of aphids as they grow. These appear to be white in color and attached to the leaves, usually deep in the foliage near the base of the plant (Fig. 5).

Control - Control of aphids on daylilies will not be as easy as on other plants, as the aphids are deep in the foliage and protected from contact insecticides and biological controls such as lady beetles. Systemic insecticides should provide control however. Examples of insecticide active ingredients with system activity include dimethoate and acephate.

Homeowners are urged to take care when using these products for their personal safety and to be aware that systemic insecticides can also be expressed in floral parts that can also expose visiting bees to the insecticide. Make sure to read the directions on the label and to follow the directions.



Fig. 5. Cast aphid skins appear white on these daylily leaves.

Plants severely damaged by fall did not die, however, the severe feeding in previous falls was expected to reduce the carbohydrates in the root systems. This may in turn reduce early season daylily growth the following spring.

Infestations this early in the year are new. Homeowners with daylilies need to monitor and may need to treat when plants begin to yellow if aphids are present.

June Garden Guide

- * Heavy rains encourage slug problems. Check for slugs during rainy periods and hand pick the pests.
- * For hanging baskets in cool, shady locations, use tuberous begonias, ferns, impatiens or fibrous rooted begonias in combination with trailing plants, such as English ivy.
- * Remove old flower heads from annual bedding plants to keep them blooming.
- * Disbud chrysanthemum flowers to secure large, beautiful blooms on straight, strong stems. To disbud, remove the small side buds along the stems which form in the angles of the leaves. This will allow all of the food reserves to be used for one large flower rather than many smaller ones.
- * Plant annual flowers in tubs or large containers for the porch or terrace. Make sure there are holes in the container's bottom to provide good drainage.
- * Remove foliage from spring bulbs after it turns yellow and begins to dry. Set out bedding plants to cover the bare spots using care not to damage the bulbs.
- * Watch for and control blackspot and powdery mildew on rose foliage.
- * Spring flowering shrubs such as spirea, viburnum, lilac and forsythia should be pruned as soon as they are done blooming.
- * Mid to late June is an excellent time to take softwood cuttings of shrubs to start new plants. Some shrubs which can be propagated in this way are spirea, lilac and viburnum.
- * When you buy nursery stock that is container grown, check the root ball and make sure it is not bound too tightly. A mass of circling roots will stay that way even after it is planted in the ground.
- * If you do not have much room to landscape, consider using some of the many dwarf varieties available. These are plants that have slow growth and stay small, so there is little pruning maintenance. There are numerous dwarf evergreens, flowering trees and shrubs from which to choose.
- * After your vegetable garden is well established, it is best to water it thoroughly once a week rather than giving it a light watering every day. That way, a deeper root system is encouraged to develop, which will later help the plants tolerate dry weather.
- * Keep a close eye on the quality of your spring crops. Hot weather causes lettuce to bolt and become bitter. Plant a warm season crop as soon as the spring vegetables are harvested.
- * In most cases, blossom-end rot on tomatoes, peppers, squash and watermelons can be prevented. Do this by maintaining uniform soil moisture by mulching and watering correctly, planting in well-drained soil and not cultivating deeper than one inch within one foot of the plant. Also avoid the use of high nitrogen fertilizers.
- * The best time to harvest most herbs is just before flowering, when the leaves contain the maximum essential oils.
- * Identify garden pests before you attempt to control them. If you decide to use chemical control, read the label carefully.
- * Bats can be an effective way to control insects. One big brown bat can eat 3,000 to 7,000 insects each night. Attract bats by building and placing bat houses in your yard.