



Horticulture 2012 Newsletter

No. 21 May 29, 2012

Video of the Week: [Controlling Bagworms](#)

UPCOMING EVENTS

Water Gardening 101: KSU Gardens Luncheon Seminar Series Continues June 21

Big pond, little pond, or patio pot. Water can be a focal point in the home garden as well as a point of interest and conversation. Water Gardening 101 is the next program Thursday, June 21 in the 2012 Friends of the Kansas State University Garden Luncheon Series.

Deb Spencer from Water's Edge, a water gardening retailer in Lawrence, will speak at the home of Steve and Lori Levin, 11720 Landscape Lane, St. George. The public seminar starts at 11:45 a.m. and concludes at 1:00 p.m. The event will include a tour of the Levin's water garden.

Admission is \$30 per person or \$25 for members of the Friends of the KSU Gardens. This includes lunch and beverage. Net proceeds benefit the KSU Gardens.

"Deb will show how easy it is to create a dynamic aquatic element in any size garden," said Lori Levin, coordinator of the seminar series.

Advance paid registration is required by calling Anne Spring at (785) 532-1442 (M, T, Th, F 8 a.m. - 1 p.m.) Or e-mail spr@ksu.edu. Please make payment in advance to Friends of the KSU Gardens, 2021 Throckmorton Hall, Manhattan, KS 66506. Deadline for reservations is June 19.

Directions to the Levin home: Take Highway 24 east. Turn north on the Flush Road for one mile. Turn west on Landscape Lane. Stop at the first house on the left side.

The last seminar in the series is "Fresh Holidays Ideas for the Home," Nov. 8 presented by Lori Able of Ann a Lee's in Manhattan at the Colbert Hills Clubhouse.

VEGETABLES

Physiological Leaf Curl in Tomatoes



Every year we have calls from gardeners who have tomato plants with leaves that curl up. When tomato plants grow vigorously in mild, spring weather the top growth often exceeds the root development. When the first few days of warm, dry summer weather hit, the plant 'realizes' that it has a problem and needs to increase its root

development. The plant tries to reduce its leaf area by rolling leaves. The leaves curl along the length of the leaf (leaflet) in an upward fashion. It is often accompanied by a thickening of the leaf giving it a leathery texture. Interestingly, leaf roll is worse on some varieties than others.

Though rolling usually occurs during the spring to summer shift period, it may also occur after a heavy cultivating or hoeing, a hard rain, or any sudden change in weather. This year, it seems heavy rains have been the culprit in certain areas of the state. Too much rain can saturate the soil and suffocate the roots. A root system lacking in oxygen cannot move water to the upper parts of the plant resulting in the same symptoms that occur with too little soil moisture or a limited root system. This leaf roll is a temporary condition that goes away after a week or so when the plant has a chance to acclimate, recover from injury, or the soil has a chance to dry out. (WU)

TURFGRASS

Thatch Control in Warm-Season Lawns



Thatch control for cool-season lawn grasses such as bluegrass and tall fescue is usually done in the fall but now is the time we should perform this operation for warm-season turfgrasses such as bermudagrass and zoysiagrass. Because these operations thin the lawn, they should be performed when the lawn is in the best position to recover.

For warm-season grasses that time is June through July. Buffalograss, our other common warm-season grass, normally does not need to be dethatched.

When thatch is less than one-half inch thick, there is little cause for concern; on the contrary, it may provide some protection to the crown (growing point) of the turfgrass. However, when thatch exceeds one-half inch in thickness, the lawn may start to deteriorate. Thatch is best kept in check by power-raking and/or core-aerating. If thatch is more than 3/4 inch thick, the lawn should be power-raked. Set the blades just deep enough to pull out the thatch. The lawn can be

severely damaged by power-raking too deeply. In some cases, it may be easier to use a sod cutter to remove the existing sod and start over with seed, sprigs or plugs.

If thatch is between one-half and a 3/4- inch, thick, core-aeration is a better choice. The soil-moisture level is important to do a good job of core-aerating. It should be neither too wet nor too dry, and the soil should crumble fairly easily when worked between your fingers. Go over the lawn enough times so that the aeration holes are about 2 inches apart.

Excessive thatch accumulation can be prevented by not over-fertilizing with nitrogen. Frequent, light watering also encourages thatch. Water only when needed, and attempt to wet the entire root zone of the turf with each irrigation.

Finally, where thatch is excessive, control should be viewed as a long-term, integrated process (i.e., to include proper mowing, watering, and fertilizing) rather than a one-shot cure. One power-raking or core-aeration will seldom solve the problem. (WU)

Little Barley in Lawns



Many people mistake little barley (*Hordeum pusillum*) for a little foxtail because the foxtail and little barley seedheads are similar. Little barley is a winter annual that thrives in cooler spring temperatures but dies out in the summer. Foxtail, on the other hand, is a summer annual that does well in hot weather. Also, foxtail will not produce seedheads until mid- to late-summer. At this point there is no control for little barley other than a glyphosate product such as Roundup. Roundup will kill whatever it hits and cannot be used on lawn. The only preemergence herbicide that I know is labeled for lawn situations is Surflan. Monterey Lawn and Garden also sell it under the name of Weed Impede. Surflan can only be used on warm-season grasses (bermudagrass, buffalograss, zoysiagrass) and tall fescue grown in warm-season areas. Because little barley is a winter annual, apply the preemergence herbicide in September. It should not be used on recently seeded or overseeded grass. (WU)

FLOWERS

Sidedressing Annual Flowers

Modern annual flowers have been bred to flower early and over a long period of time. They are not as easily thrown off flowering by high nitrogen levels as vegetables are. As a matter of fact, providing nitrogen through the growing season (sidedressing) can help maintain an effective flower display for warm-season flowers.



Apply a high nitrogen sidedressing four to six weeks after flowers have been set out. Additional fertilizations every four to six weeks can be helpful during a rainy summer, or if flower beds are irrigated. Common sources of nitrogen-only fertilizers include nitrate of soda, urea, and ammonium sulfate. Blood meal is an organic fertilizer that contains primarily, but not exclusively, nitrogen. Use only one of the listed fertilizers and apply at the rate given below.

Nitrate of soda (16-0-0): Apply 2/3 pound (1.5 cups) fertilizer per 100 square feet.

Blood Meal (12-1.5-.6): Apply 14 ounces (1.75 cups) fertilizer per 100 square feet.

Urea (46-0-0): Apply 4 ounces (½ cup) fertilizer per 100 square feet.

Ammonium Sulfate (21-0-0): Apply 0.5 pounds (1 cup) fertilizer per 100 square feet.

If you cannot find the above materials, you can use a lawn fertilizer that is about 30 percent nitrogen (nitrogen is the first number in the set of three) and apply it at the rate of 1/3 pound (3/4 cup) per 100 square feet. Do not use a fertilizer that contains a weed killer or weed preventer. (WU)

PESTS

Chiggers



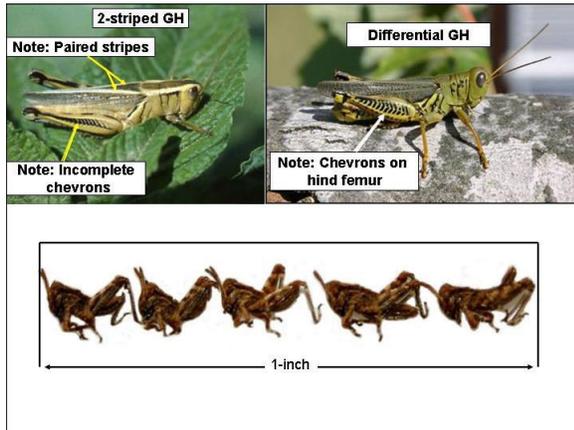
Last year was a bad chigger year and so this is a preventative article.

Chiggers are mites, not insects. And like all mites, the adults have eight legs. However, the larva only has six legs.

Though the bright red female adult is tiny (about 1/20th of an inch) the larva is much smaller (about 1/150th of an inch). Only the larvae are parasitic and attack animals. The larva injects digestive juices into the skin, which causes a rapid swelling. In the center of the swelling is a "feeding tube" from which the chigger sucks out liquefied skin cells. Feeding usually continues for 2 to 4 days.

Protection from chiggers uses two approaches. The use of a repellent can discourage chiggers from attacking. The most effective repellents are Deet and permethrin. Both are applied to clothing. The second approach seeks to reduce chigger populations. Keeping the lawn mowed regularly can help, but large populations may require the use of an acaricide. Effective products include bifenthrin (Talstar, Hi-Yield Bug Blaster II, Hi-Yield Bug Blaster Bifenthrin, and Ortho Lawn Insect Killer Granules), cyfluthrin (Tempo 20, Powerforce Multi-Insect Killer) and carbaryl (Sevin). For more information, see the K- State Research and Extension publication titled, "Chiggers" at: <http://www.ksre.ksu.edu/library/entml2/mf2107.pdf> (WU)

Five Grasshoppers in 1-inch?



Scattered on the soil surface in the marigold bed, I noticed some light colored debris. A clue as to the identity of that material “jumped” into view – a tiny grasshopper. And upon closer examination, what may have been my first thought (chewed bits of plant material) were the empty egg shells of grasshopper hatchlings.

I noticed several additional “baby grasshoppers” ---- all first instar (developmental stage) nymphs of either two-striped or differential grasshoppers. Although now small, they will grow into adult grasshoppers measuring 1 ¼ inches in length.

This is an ideal time to apply an insecticide to minimize/eliminate grasshoppers. Given their current small size, relatively soft integument, confinement to the immediate hatching area, at least this portion of the egg hatch can easily and efficiently be controlled.

Elimination of early hatchlings does not mean that a person will be free of grasshoppers for the remainder of 2012. In all likelihood, there are eggs that have yet to hatch. Also, even if one is able to control 100% of a “local population”, as the season progresses, highly mobile winged grasshoppers from adjacent or more distant areas may eventually enter yards, gardens and flower beds in search of new food sources. One can never predict grasshopper population levels or their movements. Diligence in being aware of the presence and numbers of grasshopper is a season-long commitment if one hopes to escape damage from marauding grasshoppers. (BB)

Editors Note: Insecticides labeled for the widest variety of crops include permethrin (numerous trade names), carbaryl (Sevin), lambda-cyhalothrin (Bonide Beetle Killer) and gamma-cyhalothrin (Spectracide Triazicide).

Hollyhock Weevil



An insect pest that is presently feeding on hollyhock (*Althea rosea*) plants is the hollyhock weevil, *Apion longirostre*. In fact, I saw many feeding on hollyhocks at the Manhattan Community Garden (Manhattan, KS). This insect pest, which is native of Europe, feeds on seeds, leaves, and buds before they open causing bud abortion or flower distortion. Feeding on leaves may result in a tattered appearance when leaves fully develop. Adults are small, being 1/8 inch or 3.0 mm in length, gray to black in color with orange legs, and are primarily located around developing flower buds. Larvae feed on the seeds.

Hollyhock weevil overwinters as an adult in protected locations near hollyhocks or in seeds. Adults emerge in spring and chew small holes in buds. In addition, weevils can be observed mating on flower buds with the smaller males mounted on the back of females. Females tend to have a much longer snout or beak than males because of their feeding behavior. During feeding, females chew deep pits (indentations) in the buds in which they lay eggs. The cream-colored grub or larval stage feeds on the developing embryo of the seed. After larvae have completed feeding, they pupate within the seed. Most adults typically emerge in August through September with some remaining in the seed that will emerge the following spring. There is usually one generation per year.

Hollyhock weevil management involves simply “knocking,” “shaking,” or dislodging adults from flower buds into a container of soapy water, which should immediately kill them. This method is most effective in preventing damage to hollyhock flowers when conducted twice per week. Routinely removing and disposing of seed pods will kill any developing larvae. Contact insecticides that can be used to suppress or regulate hollyhock weevil populations include acephate (Orthene), malathion, carbaryl (Sevin), and pyrethroid-based compounds (e.g., bifenthrin, permethrin, and lambda-cyhalothrin); however, these materials are harmful to natural enemies (e.g., parasitoids and predators) and bees (e.g., honey and bumble bees) so they should only be used if absolutely necessary. (RC)

Contributors: Bob Bauernfeind, Entomologist; Ray Cloyd, Entomologist; Ward Upham, Extension Associate

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