UPCOMING EVENTS

Turf & Ornamentals Field Day
Thursday, August 1
K-State Research & Extension Center, Olathe

The K-State Turf and Ornamentals Field Day will be held Thursday, August 1 at the Research & Extension Center in Olathe (35230 W. 135th). The field day program is designed for all segments of the turf industry - lawn care, athletic fields, golf courses, and grounds maintenance. Included on the program are research presentations, problem diagnosis, commercial exhibitors, and equipment displays. There will be time to see current research, talk to the experts and get answers to your questions.

1 hour of pesticide recertification credit is available in both 3A and 3B, as well as GCSAA education points. For more information and to register, go to: https://2019turfday.eventbrite.com

VEGETABLES

Do Not Over-Fertilize Tomatoes

Though tomatoes need to be fertilized to yield well, too much nitrogen can result in large plants with little to no fruit. Tomatoes should be fertilized before planting and sidedressed with a nitrogen fertilizer three times during the season.

The first sidedressing should go down one to two weeks before the first tomato ripens. The second should be applied two weeks after the first tomato ripens and the third one month after the second. 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 30 feet of row.
Blood Meal (12-1.5-.6): Apply 14 ounces (1.75 cups) fertilizer per 30 feet of row.
Urea (46-0-0): Apply 4 ounces (½ cup) fertilizer per 30 feet of row.
Ammonium Sulfate (21-0-0): Apply 0.5 pounds (1 cup) fertilizer per 30 feet of row.

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 30 feet of row. Do not use a fertilizer that contains a weed killer or weed preventer. (Ward Upham)

New Potatoes

Many gardeners look forward to harvesting new potatoes at this time of year. New potatoes are immature and should be about the size of walnuts. Pull soil away from the base of the plants to see if the tubers are the desired size. If they are, dig entire plants and allow the skins of the exposed tubers to dry for several hours before gathering. These young potatoes are very tender and prone to the skin “slipping” unless they are given a few hours to dry. Even then these immature potatoes will not store well.

Red-skinned varieties are often preferred as they are the earliest to produce. (Ward Upham)

FRUIT

Fruit Reminders

Fruit gardens have certain chores that need to be done through the growing season such as the following.

* Remove some fruit from heavily loaded apples and peaches (if the flower buds weren’t killed by frost) to improve fruit size and prevent limbs from breaking. Apples and peaches should be spaced about every 6 to 8 inches. Note that is an average spacing. Two fruit can be closer together if the average is correct.

* Remove sucker growth from the base of fruit trees and grape vines.

* Remove water sprout growth from fruit trees. Water sprouts grow straight up from existing branches.

* Water as needed. About 1 inch of water per week is about right though more may be needed during hot spells.

* "Comb" new growth on grape vines so these new shoots hang down for greater exposure to sunlight.

* Continue disease and insect control to prevent fruit damage. For more detail on fruit sprays, see “Spray Schedules” on our publication page. (Ward Upham)
PESTS

Grasshoppers

Grasshopper nymphs, both longhorned (typically not a pest), and shorthorned are common and they will probably just keep increasing in density for another month or more. Another reminder that the best time to manage them is while they are still small and thus, less mobile. An application of an insecticide labeled for grasshopper control is most effective, cheaper, and less environmentally disruptive if applied in a timely manner relative to grasshopper development. (Jeff Whitworth and Holly Davis)

Editor’s Note: More detailed information on grasshopper control is available our “Common Plant Problem” publication “Grasshoppers.”

Look for Bagworms Now

Most calls on how to control bagworms come in during late-July to early-August when damage appears. Bagworms are difficult to control when they are that large. They are much easier to kill while small.

Bagworms overwinter as eggs inside the dead female’s bag. Young larvae normally hatch and emerge during mid-to late-May in Kansas. Now would be a good time to use control measures. However, make sure the bagworms are present by looking for a miniature version of the mature bagworm. Also, check to be sure the bagworms are alive before spraying. Predators and parasites can sometimes naturally control this pest.

Insecticides commonly used for controlling bagworms include:

- acephate (Orthene)
- permethrin (38 Plus Turf, Termite & Ornamental Insect Spray; Eight Vegetable, Fruit & Flower Concentrate; Lawn, Garden, Pet, & Livestock Insect Spray)
- cyfluthrin (BioAdvanced Vegetable and Garden Insect spray)
- bifenthrin (Bug Blaster II, Bug-B-Gon Max Lawn and Garden Insect Killer)
- lambda-cyhalothrin (Spectracide Triazicide, Bonide Caterpillar Killer)
- spinosad (Conserve; Natural Guard Spinosad; and Captain Jack's Dead Bug Brew).

Spinosad is an organic control that is very effective on this pest. Thorough spray coverage of foliage is essential for good control with any of these products. (Ward Upham)

Bristly Rose Slug

This insect has been skeletonizing rose leaves Salina and
Manhattan areas. This is not a caterpillar but is the larva of a sawfly. Close examination of this small (½ inch) larva will reveal very fine, hairlike spines in clusters.

Young larvae will remove the green layer of a leaf leaving behind a clear material. As the larvae mature, they make holes in the leaf and eventually may consume all of the leaf but the major veins.

Since these insects are not caterpillars (larvae of moths or butterflies), BT, found in Dipel and Thuricide will not be an effective treatment. However, a strong jet of water will dislodge the slugs and make it difficult for them to return to the plant. Other effective treatments include insecticidal soap, horticultural oils, spinosad (Natural Guard Spinosad, Monterey Garden Insect Spray or Captain Jack’s Deadbug Brew) and permethrin (Eight Vegetable, Fruit and Flower Concentrate; Hi-Yield Lawn, Garden, Pet & Livestock Insect Spray). (Ward Upham)

**Jumping Oak Galls**

We have several reports of jumping oak galls. Leaves of the white oak family show small spots or bumps that eventually fall out and leave a hole about the size of the head of a pin. The fallen galls attract attention by jumping an inch or more due to the action of the larva inside the gall.

Jumping oak galls are caused by a very small, stingless wasp that lays eggs on developing oak leaf buds early in the spring. The larva that hatches from the egg will start to feed and juices from the saliva will cause the gall to form. The larva will feed inside the gall which offers a measure of protection. The galls are quite small; about the size of a pinhead. The gall eventually drops out of the leaf and falls to the ground. The galls will then jump due to movement of the larva inside the gall. This helps the insect move into the litter under the tree or into cracks in the soil where the insect will eventually pupate and overwinter. The mature wasp will chew its way out of the gall the next spring to start the cycle over again.

White oaks and members of the white oak family can be affected. Though heavy infestations can cause leaves to brown (or turn black), curl and possibly drop, otherwise healthy trees are not appreciably harmed. Even if it were more serious, it is too late to treat by the time symptoms are seen. Often natural controls prevent damage in subsequent years. Keep trees healthy by watering during dry weather. (Ward Upham)

**MISCELLANEOUS**

**After-Effects of Too Much Rain**

Many areas of Kansas have had saturated or near-saturated soils for several weeks now. Gardeners are likely to assume that watering won’t be needed for quite some time after dry weather arrives due to such high soil moisture levels. Actually, watering may be needed much sooner than you expect.
Excessive rain can drive oxygen out of the soil and literally drown roots. Therefore, as we enter hotter, drier weather, the plants with damaged root systems may be very susceptible to a lack of water. Don’t forget to check your plants for signs of wilting or leaf scorching and water as needed.

If irrigation is called for, water deeply and infrequently. Usually once per week is sufficient depending on the weather. Soil should be moist but not waterlogged. (Ward Upham)

Contributors: Jeff Whitworth, Entomologist; Holly Davis, Entomologist; Ward Upham, Extension Associate