Video of the Week: Spider Mites on Tomatoes

UPCOMING EVENTS

The Kansas Turf & Ornamental Field Day will be held Thursday, August 4 at the John C. Pair Horticulture Research Center (1901 E. 95th St. S., Haysville, KS)

The field day program is designed for all segments of the turf & ornamentals industry - lawn care, athletic fields, golf courses, landscape, nursery, 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.

One hour of pesticide recertification credit in both 3A and 3B are available, as well as GCSAA education points.

For more information, go to www.kansasturfgrassfoundation.com, or you can register online at https://2022turfday.eventbrite.com

Online advanced registration is strongly recommended.
Parking at Faith E Free Church - 1921 Barnes Road, Manhattan, KS.

There will be no formal welcoming session this year. Tours will leave from the registration area about every 15 minutes beginning at 8:30 a.m. and running until 10 a.m. You can arrive anytime between about 8:15 am (or earlier) and 9:45 am to join one of the tours.

8 stops with different presenters, each running about 15 minutes.

No donuts or coffee will be provided, but a boxed lunch will be available when your plot tour finishes. Take your boxed lunch and find your own space to eat - there will be some chairs spaced out in shaded areas. Or, feel free to take it "to go."

Vendors will be present from 8 a.m. until about 1 p.m.

REMINDERS

• Seed beets, carrots and beans
• Never fertilize warm-season grasses such as zoysia, bermuda and buffalo after August 15
• Remove sucker growth and watersprouts from fruit trees, especially apples
TREES

Plant Triage and Watering

With many areas of Kansas experiencing significant drought, plant triage may be in order. In other words, determine which plants are the most important to save. Of course, if no outside watering is allowed due to water restrictions, there aren’t many options. Mulching can help if the soil is moist enough to make preserving what water remains practical. Hopefully, outside watering can still be done on certain days in your area. If that is case, prioritize what plants are most important.

Large, established trees should be first on your list as they are expensive to remove, expensive to replace and take years to become large enough to fulfill their purpose. Next would be trees planted in the last 2 to 3 years as their root systems are still not completely established. Normally, these trees would be first on our list as the larger, more mature trees are more drought resistant. However, sometimes a drought will be severe enough that even large trees may die or become so weakened that borers move in and take them out.

Next would be shrubs, then perennial flowers and finally lawns, annual flowers and vegetables. You probably see the pattern here. Start with what is most expensive to replace and move down from there. For more information on watering trees, see the last article in the June 7 issue of this newsletter at https://hnr.k-state.edu/extension/info-center/newsletters/2022/June7_2022_23.pdf (Ward Upham)

Watering Newly Planted Trees and Shrubs

Newly planted trees have not established the extensive root system needed to absorb enough water during hot, dry, windy summers. Even trees two or three years old should receive special care.

Deep, infrequent watering and mulching can help trees become established. Newly transplanted trees need at least 10 gallons of water per week, and on sandy soils they will need that much applied twice a week. The secret is getting that water to soak deeply into the soil, so it evaporates more slowly and is available to the tree’s roots longer. One way to do this is to drill a 1/8" hole in the side of a 5-gallon bucket and fill it with water. The hole should be near the bottom of the bucket. Let the water dribble out slowly next to the tree. Refill the bucket once after moving it to the opposite side of the tree. After this bucket empties, you have applied 10 gallons. Very large transplanted trees and trees that were transplanted two to three years ago will require more water.

A perforated soaker hose or drip irrigation can be used to water a newly established bed or foundation planting. In sunbaked soil, you may need to rough up the surface with a hoe or tiller to get water to infiltrate easily. It may be helpful to set the kitchen oven timer, so you remember
to move the hose or shut off the faucet. If you are seeing surface runoff, reduce the flow, or build a berm with at least a 4-foot diameter around the base of the tree to allow the water to percolate down through the soil, instead of spreading out.

Regardless of method used, soil should be wet at least 12 inches deep. Use a metal rod, wooden dowel, electric fence post or something similar to check depth. Dry soil is much harder to push through than wet. (Ward Upham)

**VEGETABLES**

**Garden Beans Flowering but Not Producing Beans**

There are normally three reasons garden beans will flower but not produce fruit.

1. High temperatures: This is the most common cause in Kansas because beans prefer temperatures between 70 and 80 degrees F. If the temperature remains above 85 degrees, the flowers often drop (blossom drop) or they dry up on the plant (bud blast). Hot, dry winds can make this condition worse.

2. Extreme fluctuations in soil moisture: Too much soil moisture can be as harmful as too little as excess water limits oxygen reaching the roots. Extended rainy periods or extended drought can cause bean plants to produce few pods. We can irrigate during dry periods to alleviate drought but it is difficult to deal with excess moisture other than to use raised beds or berms to grow beans.

3. Letting pods mature on the plants: Maturing pods cause the plant to put energy into making seed rather than forming new beans. Keep plants picked even if pods are too mature to use. (Ward Upham)

**FRUIT**

**Watering Fruit Plants During the Summer**

When temperatures exceed 90 degrees F, fruit plants lose water quickly. When this happens, moisture is withdrawn from the fruit to supply the tree. Stress from high temperatures, along with a moisture deficit in the root environment, may cause fruit to drop or fail to increase in size. The stress may also reduce the development of fruit buds for next year's fruit crop.

If you have fruit plants such as trees, vines, canes, and such, check soil moisture at the roots. Insert a pointed metal or wood probe such as a wooden dowel, piece of rebar or an electric fence post to check the depth of watering. Even a long screwdriver works well for this. Push these into the soil with the goal of reaching 8 to 12 inches. This may not be possible if the soil is hard and dry. If you cannot reach the recommended depth, the plants should be irrigated to prevent drooping and promote fruit enlargement. Water can be added to the
soil using sprinklers, soaker hose, drip irrigation, or even a small trickle of water running from the hose for a few hours. The amount of time you irrigate should depend upon the size of plants and the volume of water you are applying. Add enough moisture so you can easily penetrate the soil in the root area to the recommended depth. When hot, dry weather continues, continue to check soil moisture at least once a week.

Strawberries have a shallow root system and may need to be watered more often – maybe twice a week during extreme weather. Also, newly planted fruit trees sited on sandy soils may also need water twice a week. (Ward Upham)

**TURF**

**Should I Water My Lawn?**

We have been receiving questions recently on whether to water lawns, especially the cool-season lawns tall fescue and Kentucky bluegrass. Tall fescue and Kentucky bluegrass can go drought dormant for 6 to 8 weeks without harm. Therefore, some homeowners allow their lawn to go dormant during summers such as this. However, when the rains return, the grass will be thin and weeds may become a problem. The weeds can be controlled but that adds an additional expense. Also, if we reach that 6 week period, the grass needs to be given 1/4" of water a week to keep the crown hydrated so the turf doesn't die.

If your lawn has been dormant for a while and are wondering if the turf is still alive, pull up an individual plant and separate the leaves from the crown. The crown is the area between the leaves and the roots. If it is still hard and not papery and dry, the plant is still alive.

If you want to keep the grass going through the summer, wait until you see spots in the lawn turn a purplish hue and then water well so the soil is moist about 6 inches deep. Continue to do this until the rains return. Of course, watering more won't hurt except for your water bill. (Ward Upham)

**Crabgrass Control**

This is the time of year when people really notice crabgrass infestations. By far the best way to control crabgrass is to prevent it by maintaining a good, thick lawn. Crabgrass is an annual that must come up from seed each year and the seed must have light in order to germinate. If a lawn is thick enough that sunlight does not reach the soil, the crabgrass will not germinate. Under Kansas conditions it is not easy to maintain such a lawn; so many gardeners do the next best thing and apply a crabgrass preventer in the spring. Crabgrass prevents kill the seed as it germinates. Most do not have any effect on crabgrass that has already come up. If we are too late to apply a preventer, we do have other herbicides that will kill crabgrass plants including Ortho Weed-B-Gon Max + Crabgrass Control, Fertilome Weed-Out with Crabgrass Control, Monterey Crab-E-Rad and BioAdvanced Lawn Weed & Crabgrass Killer. Each contains quinclorac, which is a crabgrass herbicide, as well as other active ingredients that control broadleaf weeds. Quinclorac is an excellent crabgrass killer that controls not only crabgrass but also has good activity on foxtail and certain broadleaves such as field bindweed, black medic and clover. However, it does little to nothing to goosegrass.
Fortunately, crabgrass starts declining about the middle of August. This is about the same time that cool-season grasses such as tall fescue and Kentucky bluegrass start to come out of their summer doldrums. By the first of September, the crabgrass will be less noticeable. Therefore, a small infestation is best ignored. Remember that crabgrass is a warm-season annual and will be killed by the first frost. (Ward Upham)

PESTS

Cicada Killer Wasps

These large (1-1/3- to 1-5/8-inch long) wasps fly slowly above the ground. Cicada killers have a black body with yellow marks across the thorax and abdomen. Wings are reddish-orange.

Although these wasps are huge, they usually ignore people. Males may act aggressively if they are threatened, but are unable to sting. Females can sting, but are so passive that they rarely do. Even if they do sting, the pain is less than that of smaller wasps such as the yellow jacket or paper wasp and is similar to the sting of a sweat bee.

The cicada killer is a solitary wasp rather than a social wasp like the yellow jacket. The female nests in burrows in the ground. These burrows are quarter-size in diameter and can go 6 inches straight down and another 6 inches horizontally. Adults normally live 60 to 75 days from mid-July to mid-September and feed on flower nectar and sap. The adult female seeks cicadas on the trunks and lower limbs of trees. She stings her prey, flips it over, straddles it and carries it to her burrow. If she has a tree to climb, she will climb the tree so they can get airborne and fly with cicada back to the nest. If not, she will drag it. She will lay one egg per cicada if the egg is left unfertilized. Unfertilized eggs develop into males only. Fertilized eggs develop into females and are given at least two cicadas. Cicadas are then stuffed into the female’s burrow. Each burrow normally has three to four cells with one to two cicadas in each. However, it is possible for one burrow to have 10 to 20 cells.

Eggs hatch in two to three days, and larvae begin feeding on paralyzed cicadas. Feeding continues for four to 10 days until only the outer shell of the cicada remains. The larva overwinters inside a silken case. Pupation occurs in the spring. There is one generation per year. Cicada killers are not dangerous, but they can be a nuisance. If you believe control is necessary, treat the burrows after dark to ensure the female wasps are in their nests. The males normally roost on plants near burrow sites. They can be captured with an insect net or knocked out of the air with a tennis racket during the day. Permethrin may be used for control. Products with permethrin include the following.

Dusts

Eight Garden Dust - Bonide
Multipurpose Garden and Pet Dust - Green Thumb
Garden, Pet & Livestock Dust - Hi-Yield

Liquids

38 Plus Turf, Termite & Ornamental Insect Spray - Hi-Yield
Eight Vegetable, Fruit & Flower Conc. - Bonide
Eight Yard & Garden RTS - Bonide
Garden and Farm Insect Control- Hi-Yield

(Ward Upham)
With many municipalities and tree service companies having wood chippers now, gardeners often are able to get chips free. We are sometimes asked our opinion about whether these make a good mulch.

Some people have heard that these chips will tie up nitrogen so that the garden plants won't grow as well. If wood chips are used as a mulch, there is no cause for concern. However, if the chips are mixed with the soil, there can be a problem during the breakdown process. The microorganisms that break down the chips need a certain amount of nitrogen during the process. With most green material, there is enough nitrogen in the material itself to meet the needs of the microorganisms. However, nitrogen levels in wood chips are so low, the microorganisms must borrow it from the surrounding soil. This results in less nitrogen being available to the plants. However, when the raw organic material has been digested, the microorganisms die and release the nitrogen. Therefore, the nitrogen is not lost but is simply unavailable for plant use for a period of time. Again, this is only a concern if the wood chips are mixed into the soil. There is no problem with nitrogen tie-up if the chips are used as a mulch.

However, one point should be kept in mind. These chips can be used by foraging termites as a bridge to homes and other structures. Termites are light and heat sensitive and will not bother the chips themselves if they are 3 inches deep or less. Therefore, watch the depth of these chips near the house or other buildings. Also leave a bare area several inches wide next to the house so that any termite activity is noticeable. (Ward Upham)

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This newsletter is also available on the World Wide Web at: http://hnr.k-state.edu/extension/info-center/newsletters/index.html

The web version includes color images that illustrate subjects discussed. To subscribe to this newsletter electronically, send an e-mail message to cdipman@ksu.edu or wupham@ksu.edu listing your e-mail address in the message.

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