Horticulture 2013 Newsletter
No. 25 July 25, 2013

Video of the Week: Watering Young Trees

UPCOMING EVENTS

July 8 & 9 Kansas Community Gardens Conference, Manhattan

July 17 & 18 NurseryWorks, Manhattan
http://nurseryworks.weebly.com/

July 23 K-State Bedding Plant Field Day, Olathe

July 27 K-State Research & Extension Center Open House, Olathe

August 1 Turf & Ornamentals Field Day, John Pair Horticulture Research Cntr., Haysville
http://www.hfrr.ksu.edu/doc3774.ashx

Correction Regarding Rose Rosette Article

Rose rosette is not caused by an aster yellows phytoplasma. Recently, an article was published that identified the cause of rose rosette disease as a new virus in the emaravirus group. (Laney, A.G., Keller, K.E., Martin, R.R., and Tzanetakis, I.E. 2011. A discovery 70 years in the making: Characterization of the Rose rosette virus. J. Gen Vir. 92:1727-1732.) Thanks to Judy O’Mara, our Plant Diagnostic Lab Diagnostician for sharing this information. (Ward Upham)

FRUIT

Strawberry Bed Renewal

Next year's strawberry crop will be affected by what you do to this year's strawberry bed. The sooner after harvest the patch is cleaned up, fertilized and irrigated, if possible, the better the chance of getting a good crop next year. One of the main goals in renovation is to provide a high level of sunlight to plant leaves so they can manufacture the food the plant needs. If leaves have disease spots, remove all the
leaves in the bed. Removing, these diseased leaves and weeds will cause new, non-diseased leaves to
develop and remove competition from weedy plants. Hedge shears or even a mower can be used. Be sure
the mower blade is high enough to avoid the strawberry crowns.

It is also important to reduce the number of strawberry plants so they do not compete for light, moisture
and nutrients. If you have a small bed, you can hoe out or pull some plants so they are spaced about 4 to 6 inches apart. On large beds, adjust a rototiller so you can till between the rows, and cut each row back to about 10 inches wide.

The next step is to fertilize the plants with about 3/4 to 1 pound (3 to 4 cups) of a complete fertilizer such
as 13-13-13 (nitrogen, phosphorus and potassium) or an equivalent on each 25 feet of row. If a soil test
shows adequate levels of phosphorus and potassium, use 3/4 pound (1.5 cups) of a 16-0-0 (nitrate of
soda) fertilizer per 25 feet of row instead. If nitrate of soda is unavailable, use the lawn fertilizer that
contains about 30% nitrogen such as a 30-0-3, 28-0-3 or something similar. Make sure the lawn fertilizer
does not contain a weed killer or preventer. These fertilizers should be used at the rate of 3/4 cup per 25
feet of row.

The next step is to irrigate to wash the fertilizer into the soil and provide moisture for the rapid growth of
the strawberry plants. When the soil is dry, apply about 1 inch of water. A garden sprinkler can do a good
job applying the water.

Controlling weeds and watering throughout the summer are important so plants are vigorous when fruit
buds begin to develop in September and October. (Ward Upham)

PESTS

Ladybird Beetles

If you see what looks like very small alligator-shaped insects on your plants, don't be concerned. This is the larval
form of the ladybird beetle. The larvae are covered with spines, about 3/8 inch long, and black with orange
markings. Neither the adults nor larvae will feed on the plants but rather on other insects including aphids,
mealybugs, whiteflies, scale insects and the eggs of various other insects. Because those other insects normally are
feeding on the plant, ladybird beetles are considered beneficial. (Ward Upham)
Grasshopper Control

While doing a little hand weeding around Datura spp. plants, I noted some foliar damage ---for the most part, small holes. And there sunning itself was a small grasshopper nymph (a second instar nymph of either a differential or two-stripped grasshopper). With a little further looking, there actually were quite a few little “hoppers”.

I then went to a couple other nearby flower beds and saw more nymph activity. As I proceeded to apply an insecticide treatment, even more previously unseen nymphs appeared.

The important message here is that if people have grasshopper concerns, now is a good time to initiate a grasshopper control program. Look closely for signs of their presence ---small holes in foliage and the presence of nymphs. Because they are of local origin/small/incapable of flight, their populations are confined to their hatching beds areas. They have little ability to escape treatments. One should not rest on their laurels. Having eliminated the current nymphs does not mean that there might not be additional hatchlings. On a frequent (once-a-week) basis, consider inspecting plants in flower beds and garden areas for their presence. Apply treatments if necessary.

Do these proactive steps mean that large grasshoppers will not be a problem this fall? Not necessarily. While localized populations on an individual property have been kept “in check,” populations from adjacent untreated areas/properties will have attained maturity and flight capabilities. Thus being highly mobile, they may invade your yard. (Bob Bauernfeind)

Editor’s Note: Insecticides labeled for grasshopper control for the widest variety of crops include permethrin (numerous trade names), cyfluthrin (Bayer Multi-Insect Killer), carbaryl (Sevin), lambda-cyhalothrin (Bonide Beetle Killer, Bonide Caterpillar Killer) and gamma-cyhalothrin (Spectracide Triazicide).

ORNAMENTALS

How Healthy is My Tree?

One of the most important clues in determining the health of your trees is the amount of new growth that tree produces. A
healthy tree should have a minimum of 4 to 6 inches of new growth each year. Check branches with the tips in the open and not shaded by the tree itself. Anything less than 4 inches on the majority of branches suggests the tree is under a great deal of stress.

So how do you tell where the new growth stops? Look for a color change in the stem. New growth is often greener than that from the previous year. There is also often an area of what looks like compressed growth where growth transitions from one year to the next.

Lastly, look at leaf attachment. Leaves are only produced on current season’s growth. Therefore, new growth stops where leaves are no longer attached directly to the twig but to side branches. However, pay attention as leaves may appear to be attached directly to last year’s growth but are actually borne on short spurs. If you look closely, you can tell the difference.

All this clue tells you is whether a tree is under stress or not. It does not tell you what is causing poor growth. This year, the most common cause by far is environmental stress caused by the warm, dry winter of 2011-2012 and the drought and hot summer temperatures the previous two summers. Those conditions often resulted in damaged root systems. In some cases, root systems were damaged enough that those trees may struggle as we enter summer. Though the roots were able to keep up with moisture demands during the cooler spring weather, they may not be able to as temperatures rise. Such trees may suddenly collapse and die or slough off branches they can no longer support. If possible, water to a depth of 12 inches every couple of weeks we do not receive rain in order to avoid further stress. (Ward Upham)

**TURFGRASS**

**Little Barley in Lawns**

Many people mistake little barley (Hordeum pusillum) for a little foxtail because the foxtail and little barley seedheads are similar. However, little barley is a winter annual that thrives in the 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. However, Roundup will kill whatever it hits and cannot be used in a lawn situation. 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. (Ward Upham)
Herbicide Damage to Trees and Shrubs

This seems to be a year in which we are seeing a great deal of damage caused by exposure to herbicides. Symptoms vary with herbicide applied, plants exposed, concentration of product and environmental factors. Here is a list of the types of damage commonly seen.

**Broadleaf herbicide drift.** A number of herbicides used on farms and on home lawns are essentially plant growth hormones. These include 2,4-D, triclopyr, and dicamba and are commonly used to control broadleaf weeds in lawns, pastures, or grassy crops. These products may volatilize (become a gas) at high temperatures and may drift and damage non-target plants such as trees and shrubs. Symptoms may include twisting and distortion of plant foliage, leaf yellowing, and, in severe cases, branch dieback. One of the trademark signs of this damage is the curly-Q twisting of leaf petioles or stems. Though some species of woody plants such as redbud and grape are very sensitive to these herbicides, usually a number of species will show some damage if drift has occurred. If you see twisting on more than one woody species, chances are that herbicide drift has occurred. Often plants will recover from drift due to volatilization.

**Damage from stump or sprout treatments.** Tree stumps are often treated to prevent resprouting. Two commonly used products are picloram (Tordon) and triclopyr (Remedy, Stump Killer, Brush-B-Gon, etc.). Be careful when applying these herbicides to prevent contamination of the soil. Nearby trees may be damaged if they pick up enough herbicide. Foresters warn that picloram may also leach from roots of a treated tree into the soil and then be absorbed by roots of another tree species. Be very careful about using these products near valuable trees and shrubs.

Sprouts are often treated to keep them from growing where they interfere with the aesthetics of a lawn or other landscaped area. Never use a herbicide to treat sprouts coming from a root system of a tree you want to keep. A number of tree species including honey locust, black locust, hackberry, western soapberry, persimmon, and occasionally maples may send up sprouts from their roots.

Treating these sprouts will effectively treat the tree to which they are attached. This may ultimately kill the tree. Also remember that trees of the same species growing next to one another may share a root system as a result of root grafting. Treating one tree in the group is like treating all of the trees.

**Liquid Weed Edgers.** Herbicides are often used along fences, on sidewalks or gravel drives to prevent plant growth. Some of these, including glyphosate (Roundup) and glufosinate (Finale) rarely cause damage unless sprayed directly on the foliage of a shrub or tree. Other liquid weed edger products are soil sterilants and have a long residual (months to years) in soil and are highly toxic to trees and shrubs. Symptoms may include yellowing, marginal leaf scorching, branch dieback and tree mortality. Once the tree takes up these products through their roots, they suffer permanent damage. Never use these soil sterilants in areas where tree roots may be exposed. Remember that tree roots extend well beyond the so-called drip line. It is almost impossible to use liquid weed edgers in the landscape without coming in...
contact with tree roots. Also remember that some of these products, such as prometon, will move with water until they become affixed to the soil. (Ward Upham)

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