Horticulture 2013 Newsletter  
No. 28   July 16, 2013

Video of the Week:  Dividing Iris

UPCOMING EVENTS  
Nurseryworks - July 17 & 18, 2013  
Manhattan, KS  
http://nurseryworks.weebly.com/

Bedding Plant Field Day - July 23  
Olathe, KS  
http://www.hfrr.ksu.edu/doc3794.ashx

K-State Research & Extension Center Horticulture Field Day - July 27  

Turf & Ornamentals Field Day - August 1, 2013  
John C. Pair Horticulture Research Center, Haysville  
http://store.kansasturfgrassfoundation.org

FRUIT

Watering Fruit Plants in Hot Summers

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 When this happens, moisture is withdrawn from the fruit to supply the tree.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 spade or shovel or a pointed metal or wood probe -- a long screwdriver works well for this. Shove these into the soil about 8 to 12 inches. If the soil is hard, dry, and difficult to penetrate, the moisture level is very low, and 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 of the plant with a metal rod, wooden dowel or other probe. 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)

**Tan or White Drupelets on Blackberry and Raspberry Fruit**

Blackberry and raspberry fruit will often develop white or tan drupelets on the berry. Though we are not completely sure of the cause, two commonly given reasons are stinkbug damage and sunscald. Damage has been attributed to stinkbugs if the pattern of off color (not white) drupelets is random. Stinkbug damage is caused by the insect feeding on the blackberry receptacle and injuring drupelets on either side. Sunscald damage will be on the side of the fruit exposed to the sun and has several drupelets in a small area being affected.

Neither condition affects the eating quality of the fruit unless the stink bug releases the “stink” with which it is associated rendering the fruit inedible. By the time damage is seen, it is too late for control. (Ward Upham)

**FLOWERS**

**Dividing Iris**

Bearded irises are well adapted to Kansas and multiply quickly. After several years, the centers of the clumps tend to lose vigor, and flowering occurs toward the outside. Dividing iris every three to five years will help rejuvenate them and increase flowering.

Iris may be divided from late July through August, but late July through early August is ideal. Because iris clumps are fairly shallow, it is easy to dig up the entire clump. The root system of the plant consists of thick rhizomes and smaller feeder roots. Use a sharp knife to cut the rhizomes
apart so each division consists of a fan of leaves and a section of rhizome. The best divisions are made from a double fan that consists of two small rhizomes attached to a larger one, which forms a Y-shaped division. Each of these small rhizomes has a fan of leaves. The rhizomes that do not split produce single fans. The double fans are preferred because they produce more flowers the first year after planting. Single fans take a year to build up strength.

Rhizomes that show signs of damage due to iris borers or soft rot may be discarded, but you may want to physically remove borers from rhizomes and replant if the damage is not severe. It is possible to treat mild cases of soft rot by scraping out the affected tissue, allowing it to dry in the sun and dipping it in a 10 percent solution of household bleach. Make the bleach solution by mixing one-part bleach with nine parts water. Rinse the treated rhizomes with water and allow them to dry before replanting.

Cut the leaves back by two-thirds before replanting. Prepare the soil by removing weeds and fertilizing. Fertilize according to soil test recommendations or by applying a complete fertilizer, such as a 10-10-10, at the rate of 1 pound per 100 square feet. Mix the fertilizer into the soil to a depth of 6 inches. Be wary of using a complete fertilizer in areas that have been fertilized heavily in the past. A growing number of soil tests show phosphorus levels that are quite high. In such cases, use a fertilizer that has a much higher first number (nitrogen) than second (phosphorus). (Ward Upham)

**VEGETABLES**

**Tomato Fruit Problems**

Extreme heat and bright sunlight can sunscald tomato fruit, leaving a light yellow to white sunken spot that resembles a blister. Eventually this area may allow black mold in invade and cause the tomato to rot.

Sunscald most often happens to fruit that is exposed to full sun after losing foliage to disease, hail or tomato hornworms. Exposed fruit may be shaded with cheesecloth to prevent injury. Remove affected fruit to encourage more fruit set.

Sunburned fruit are rarely usable if the damage is extensive. Tomatoes with little damage can be used if sunscalded areas are cut out. (Ward Upham)

**PESTS**

**Buffalograss Webworms**

This insect has a restricted distribution in
comparison to the more familiar sod webworm species (in the genus Crambus) which are distributed throughout Kansas and the United States. In an initial distribution survey which included 36 counties, buffalograss webworms were documented from Barber, Barton, Edwards, Ellsworth, Kingman, Meade, Pawnee, Pratt, Rice and Stafford Counties. It is most certain that they occur in additional counties not included in the initial survey. Despite its name, buffalograss webworms also feed on bermudagrass, will damage bentgrass greens.

As do common sod webworms, buffalograss sod webworms construct silken surface tubes which are encrusted with particles of dirt/frass/grass blades/stems and other surface debris. However, if one scrapes away the tubes, holes will appear in the soil surface. These are the entryways to silk lined vertical tubes in the soil in which buffalograss webworms (during the daytime) feed on grass that they harvested and stored during the previous night’s foraging foray. This is in contrast to other sodworm species which do not create vertical tubes but remain in and feed within their surface tubes.

Buffalograss webworms are often first detected at the beginning of summer when something appears amiss. Typically a site will have visibly green grass bordered by an off-colored area. The yellow arrows point to the direction of the movement of the webworms. Individuals who do not detect early problem areas are jolted into reality when bare ground captures their attention.

Buffalograss webworms produce a single generation per year. Larvae feed and develop throughout summer. Pupation begins in late July and extends to the end of September. Moths (again) begin appearing in August to repeat the cycle. Buffalograss webworms likely have a yearly presence. However, only when sporadic outbreaks occur is their presence noted and reported. High populations coupled with hot and dry conditions result in the appearance of bare areas which will then require restoration of grassy areas.

Larvae are well protected (from direct contact with insecticides) within their silk-lined tubes. While they are never are fully exposed, they poke their heads out to clip grass blades as they forage during the night. Knowing this, a person can apply an insecticide treatment to the “healthy” grass which abuts damaged areas as that grass is next-in-line to be harvested during the ensuing night’s foraging period. Mortality/kill results from direct contact with insecticides as they forage, and/or the eventual consumption of treated foliage.

While there are no insecticidal products specifically registered for use against buffalograss webworms, there currently are 512 products registered for use against sod webworms in general. (Bob Bauernfeind)

**Boxwood Spider Mite**

When we discuss spider mite pests in landscapes and gardens, the two that are often mentioned are the twospotted spider mite (Tetranychus urticae) and the spruce spider mite (Oligonychus ununguis). However, there is another spider mite pest in Kansas called the boxwood spider mite (Eurytetranychus buxi) that feeds exclusively on boxwoods including the common, English, and European.
Adults are small and tan to dark yellow-brown in color with long protruding front legs that make them look like a spider. The young life stages (larvae and nymphs) are smaller than the adults. Eggs typically hatch in May, and the young spider mites feed on both the upper and lower leaf surface. Heavily infested leaves may turn yellow to brown, and premature leaf drop may occur. There are several generations per year. Boxwood spider mite overwinters as an egg on leaf undersides.

A forceful water spray directed toward the leaf underside will quickly remove all the life stages (eggs, larvae, nymphs, and adults) and will preserve any natural enemies. Similar to other pest spider mites, the boxwood spider mite is susceptible to natural enemies including predatory mites and bugs, lacewings, and ladybird beetles. It is also possible to prune or shear-off the damaged growth, and then allow the new growth to emerge, which may cover or mask any remaining leaves that exhibit feeding damage.

Applications of dormant or horticultural oils to the undersides of leaves in winter will kill the eggs. In addition, an insecticidal soap (active ingredient=potassium salts of fatty acids) or horticultural oil (petroleum or paraffinic-based) will kill the larva, nymph, and adult life stages. Thorough coverage of all plant parts and multiple (repeat) applications are important in order to obtain sufficient regulation of boxwood spider mite populations. Pesticides with miticidal properties including abamectin (Avid), bifenazate (Floramite), clofentezine (Ovation), hexythiazox (Hexygon), fenbutatin oxide (hexakis), and pyrethroid-based pesticides including those with the active ingredients bifenthrin and lambda-cyhalothrin may be used to regulate populations of the boxwood spider mite. However, a number of these materials are harmful to natural enemies. Therefore, it is important to only apply pesticides when absolutely necessary. (Raymond Cloyd)

**Stalk Borer**

If you have noticed vegetable or garden plants suddenly wilt for no apparent reason, look for stalk borers. Though there are other insects that bore into vegetable plants (squash vine borer, for example), this insect can feed on a wider variety of species (about 175). Though there are so many plants that can be attacked, we have been noticing damage primarily on tomatoes. Usually the whole plant wilts but sometimes only a branch is affected. It is the larva of this moth that causes damage by tunneling inside stems. The larva is unique in appearance, with a single white line running down the back and a white line on each side of the body that is visible near the head and the rear but is interrupted in the middle of the body with a purple band. The head capsule is brownish-tan.

If you look at affected plants closely, a small hole will be present in the side of the stem. Splitting the stem will reveal the larva. Some gardeners slit the stem, remove the larva, and wrap the stem back together. Heat and wind often render this operation unsuccessful. Fortunately, damage usually is sporadic, with only a plant here and there affected. There is one generation a
year, so once the first attack is over, the problem doesn't reoccur. Insecticides are ineffective against this insect. (Ward Upham)

**Walnut Caterpillars**

If you notice leaves disappearing from walnut trees, it may be walnut caterpillars. Walnut caterpillars attack primarily black walnut, pecan, and several species of hickory trees, but may also attack birch, oak, willow, honey locust, and apple trees.

Walnut caterpillars overwinter as pupae underground beneath host trees. In late spring, moths emerge and deposit egg clusters on lower leaves. By the end of June, newly emerged and gregarious larvae skeletonize leaves. Larger hairy, brick-red larvae consume greater amounts of leaf tissue, and nearly matured gray larvae devour entire leaves, including petioles.

As mentioned earlier, walnut caterpillars are gregarious. In other words, they feed in groups. A single tree may contain several groups.

When disturbed, larvae arch their bodies in what looks like a defensive move. Larvae crowd together on the lower parts of trees to molt and leave an ugly patch of hairy skins. Mature larvae, 2 inches long, descend or drop to the ground where they enter the soil to pupate. A second generation occurs soon, creating the overwintering pupae.

Removing leaves with egg masses is an effective way to control walnut caterpillars. This may be impractical with large trees or when too many infested leaves are present. Bands of Tree Tanglefoot pest barrier may be used to snare larvae as they migrate to main branches or the trunk to molt. Insecticides such as spinosad (Conserve; Captain Jack’s Dead Bug Brew; Borer, Bagworm, Leafminer and Tent Caterpillar Spray) permethrin (numerous trade names) malathion or cyfluthrin (Tempo, Bayer Multi-Insect Killer) may provide the most practical means of control. (Ward Upham)

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