

Horticulture 2009 Newsletter No. 19 May 13, 2009

UPCOMING EVENTS

Northeastern Kansas Beekeepers' Super Fun Day is set for Saturday, June 6 at the Douglas County Fairgrounds, 2110 Harper, Lawrence Kan.

Registration will take place from 8 to 8:45 a.m. Program 8:45 a.m. to 5 p.m.

Cost is \$25 per person for those preregistered or \$30 after May 29. Children under 5 are free, ages 6 to 18, \$10 for those preregistered, \$12.50 after May 29. See <http://tinyurl.com/r4mlz4> for more information.

Wildflower Tour

The BCMSHR WRAPS, along with many participating agencies and group organizations, are holding a wildflower tour on the Fort Hays State University rangelands near Hays, Kansas, on May 23rd from 9 a.m. until noon. It is a come-and-go event, and there will be local experts on hand to identify and discuss history and uses of the wildflowers present. Experts include Mike Haddock and Keith Harmony, K-State, and Roger Tacha, NRCS. The event is free and all are welcome to participate. Information for the event is online at www.MyKansasWatershed.com

VEGETABLES

Cucumber Beetles and Bacterial Wilt



If you had cucumbers or muskmelons that suddenly turned brown and died last year, you may have had a disease known as bacterial wilt. The cucumber beetle carries this disease. Once a plant is infected, there is no cure, so prevention is the key. Because cucumber beetles overwinter as adults, early control measures are essential.

There are two types of cucumber beetles: striped and spotted. The striped cucumber beetle is the most common. The 1/4-inch-long beetles are conspicuously colored: black head and antennae, straw-yellow thorax, and yellowish wing covers with three distinct parallel and longitudinal

black stripes. Young plants can be protected with row covers, cones, or other types of mechanical barriers. Edges must be sealed to ensure that the beetles do not find a place to enter. Plants will eventually outgrow these barriers, or they will need to be removed to allow insect pollination of the flowers. Apply insecticides before beetles are noticed in the planting. Continue to spray weekly throughout the season. Homeowners can use Sevin, Rotenone, or Methoxychlor. Once plants have started flowering, spray late in the evening after bees have returned to the hive. Check labels for waiting periods between when you spray and when the fruit can be picked. (WU)

Rabbits in the Garden



Rabbits in gardens are a perennial problem because of the wide variety of plants they can feed on. This time of year, they gravitate to young vegetables and flowers. However, there are some vegetables that are rarely bothered including potatoes, tomatoes, corn, squash, cucumbers and some peppers. The question is how do you protect other, more susceptible plants? Fencing provides a quick and effective control method. The fence does not need to be tall; 2 feet is sufficient. But the mesh must be sufficiently fine (1 inch or less) so young rabbits

will not be able to go through it. Support for the fence can be supplied by a number of products, but electric fence posts work well.

Often fencing is not an acceptable choice because it affects attractiveness of the garden. There are other ways to control rabbits including repellents, trapping and shooting. Repellents are often suggested for control but often do not last long and require frequent reapplication. Also, many are poisonous and cannot be used on plants or plant parts destined for human consumption. Live traps can be used to collect and move the rabbits to a rural area several miles from where they were trapped. A number of baits work well to entice the rabbit to enter the trap including a tightly rolled cabbage leaf held together with a toothpick. Shooting is another possibility when it is safe and legal to do so. (WU)

PESTS

Cutworms in my Garden

A month ago, early season garden insect pests were the topic of concern. Since then we have transitioned from flea beetles damaging newly emerged seeded veggies to cutworms targeting transplants. Cutworms are the larvae of various species of noctuid moths. Those occurring during the early spring growing season are those that hatched and began developing the previous fall.



Cutworms hide during the day and feed at night. Their presence becomes known when cut plants are found lying on the soil surface. Usually a single cutworm or two is responsible for cutting activities. Because it is impractical for them to leave the garden when daylight approaches, they hide under surface debris or burrow into the soil adjacent to cut plants. A tunnel entrance is a sign that a cutworm has burrowed into the soil.

In a recent attempt to find the cutworm, I brushed the debris aside and used a knife blade to dig in the moist soil around the plant to expose the cutworm. Although one might have assumed that the cutworm would be just beneath the entrance hole, the tunnel almost immediately angled off. The final resting place was 5 inches deep and on the opposite side of the plant.

In most cases, the cutworm can be found curled up. When left alone for a minute or two, the cutworm abandoned its fetal position and began tunneling back underground. While most garden insecticides list cutworms on their product labels, they are generally unnecessary. Cutworms can simply be picked up and disposed of. Leave it to an entomologist to be delighted by a cutworm visit. In this instance, the larva was recovered and is being babied so it can be used as a display specimen at an upcoming event.

The fate of the tomato plant? Although the main stem was cut, tomato plants do what tomato plants do — put out auxillary shoots from the remaining leaves and stems. With plenty of time left in the growing season, the plant should recover and produce fruit.

Cole crops and cutworms are a different story. Cabbage, broccoli, cauliflower, and brussels sprout plants have one shot at production. If a cutworm severs a young transplant, it will not recover. Now, until stems have gotten too big for the cutworm to sever, it is especially important to monitor cole crop transplants for cutworm activities. (BB)

Pine Tortoise Scale



Pine Tortoise Scale (*Toumeyella parvicornis*) (Eckhardt)
Photo By: Kansas Department of Agriculture (KDA) ImageID: 1306
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Great Plains Insectwork Network
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We have received an inquiry regarding the presence of pine tortoise scale, *Toumeyella parvicornis* on pine. Pine tortoise scale feeds on many types of pine trees, including Scots, Austrian, and red. Immature females, which are round, brown, and wrinkled in appearance, overwinter on twigs. Eggs are laid underneath the body of adult females. Eggs may hatch into young crawlers from May through June, depending on temperature. Crawlers eventually establish in suitable locations and initiate the feeding process. Crawlers may spread to other plants via wind currents or by birds. Females are capable of

producing up to 500 crawlers. Males, similar to most scale species, develop into winged individuals, which fly and mate with females. The males cannot feed and eventually die. There is usually one generation per year.

Pine tortoise scale feeding causes yellowing of needles, stunted needle growth, and under extensive populations may even result in pine death. In general, young pine trees are more susceptible to pine tortoise scale than mature trees, and foliage closer to the ground tends to support higher populations of pine tortoise scale than foliage higher in the tree canopy. In addition, pine tortoise scales produce large quantities of honeydew, which serves as a growing medium for black sooty mold fungi. Under heavy infestations, entire trees may appear black.

Insecticides that may be useful for control of pine tortoise scale include acephate (Orthene), acetamiprid (TriStar), bifenthrin (Talsar), cyfluthrin (Tempo), dinotefuran (Safari), imidacloprid (Merit), insecticidal soap, and horticultural (=summer) oil. These insecticides need to be applied when crawlers are active in order to achieve maximum control of pine tortoise scale and alleviate problems next year. (RC)

Galls on Trees



Most galls are formed by a wide array of insect species including gall midges, gall wasps, sawflies, aphids, psyllids, and adelgids. Not all galls are incited by insects. For instance, various mite species are responsible for producing galls. Of particular interest are “flower galls” caused by a type of eriophyid mite. The most common observed “flower gall” is the ash flower gall. Fertile female mites overwinter in protected sites beneath bud scales and bark. In spring, they move to male flowers where they deposit eggs. The newly developing mites cause a proliferation of

flower growth and distortion. These abnormal growths may be masked by the current season’s foliage. But after leaf drop in the fall, the then-browned flower galls become apparent and create a cause-for-concern by homeowners. However, these flower galls are entirely a cosmetic situation and of no harm to the tree. They may reoccur in an ensuing year(s), or simply phase themselves out and become nothing more than a faded memory.

Note that the galls provide shelter and food. The galls merely reside on leaves, taking nothing. Under certain conditions, extremely heavy numbers of leaf galls may cause premature leaf drop. But this could be viewed as “good,” because early in the season, trees (almost immediately) put out a flush of new leaves that will be gall-free because the egg-laying gall makers have run their course and are no longer present.

With warmer temperatures the past couple of weeks, foliage production of most trees has exploded. Currently, those leaves are devoid of leaf galls. But that will soon change because the seasonal life histories of those species responsible for initiating the galling process is synchronized with initial leaf production in spring.

Are there measures to prevent the formation of insect galls? Yes. The timely application of insecticide treatments to coincide with the presence of gallmakers could reduce populations and minimize the extent of gall formation. BUT it is impossible to predict when, where and what

trees will be affected. Also, there is little wiggle-room in the timing of insecticide applications — miss it by a week and the deed-is-done. The size of a tree may prevent thorough spray coverage if attempted by a homeowner. And again, the bottom line is that leaf galls are not detrimental to overall tree health. See them, and maybe even marvel at them. Make the best of a harmless situation. (BB)

MISCELLANEOUS

Moving Houseplants Outside for the Summer



It is often helpful to set many houseplants outside for the summer so they can recover from the low light levels endured during the winter months. As soon as night temperatures stay consistently above 55 degrees F, houseplants can be moved to their summer home. Choose a spot that has dappled shade, is protected from the wind and is close to water. A porch or a spot that receives shade from trees or buildings will work well. Putting houseplants in full sun will cause the leaves to photooxidize or sunburn because the leaves have

become adapted to low light levels inside the house. Where possible, sink the pots into the ground to help moderate root temperatures and reduce watering frequency.

If you have a number of plants, dig a trench 6 to 8 inches deep (or deeper if you have larger pots) and long enough to accommodate all of your plants without crowding. Place peat moss under and around the pots. Peat moss holds water, helps keep the pots cool and reduces evaporation from clay pots. About every two weeks, rotate the pots a quarter turn to break off any roots that have penetrated the peat moss surrounding the pot and to equalize the light received on all sides of the pot. Water as needed. If the potting soil is dry a half-inch deep in the pot, it is time to water. (WU)

Walnut Wilt



Tomato, potato, blackberry, apple, lilac, asparagus, chrysanthemum, peony, and other herbaceous and woody plants can be afflicted with a disorder known as walnut wilt. Other plants, such as black raspberry, corn, bean, carrot, dandelion, and zinnia are resistant. This malady is associated with root uptake of a chemical called juglone that is produced by several species of trees in the walnut family, including black walnut, Persian walnut, butternut, and pecan. Juglone is formed in the leaves, fruit hulls, inner bark, and roots of the

walnut and is leached or released into the soil. This chemical has fungicidal and insecticidal properties. It also is quite toxic to many plant species and induces wilting and stunting. The

ability of plants to produce and release chemicals that are toxic to other plants is called allelopathy. The severity of the juglone toxicity partly depends on the proximity of the plants to a walnut tree.

Generally, tomatoes growing next to a walnut tree abruptly wilt and die in early to mid-summer. Those plants growing a short distance away may not be killed but become flaccid and stunted. The woody stem tissue of affected plants turns brown. The symptoms of walnut wilt closely resemble those of Fusarium and Verticillium wilt, but the disorder may be distinguished from the other wilts by the constant association of walnut trees with the wilting symptoms.

Juglone may be leached from leaves and nuts into the soil during rain or released from roots. The chemical is highly reactive and quickly inactivated in the soil. The major uptake of the toxin occurs when tomato roots make contact with the roots of the walnut.

Tomatoes or other susceptible plants should not be grown near black walnut or other trees that produce juglone. The removal of walnut trees may not have an immediate effect because the toxin can persist in the inner bark of roots for several years. Do not plant tomatoes for at least two years after removing walnuts. (WU)

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