Horticulture 2012 Newsletter
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Video of the Week: Succession Planting of Vegetables

UPCOMING EVENTS

Grape Growing Workshop to be Held

In cooperation with the Dickinson County Extension office and Kansas Department of Agriculture, Highland Community College will host a Vineyard Workshop on Wednesday, May 23rd. The workshop is free to the public and will run 3:00-6:00 p.m. at Kanza Vineyard located at 1853 2700 Ave, Chapman, KS 67431. Dominic Martin, HCC Vineyard Manager and Viticulture-Enology Instructor will conduct the workshop discussing the Grand Period of Growth, canopy management, shoot positioning, vine training, fertilizer application and more. To RSVP, please contact either Scott Kohl at HCC at 785-456-6006 / skohl@highlandcc.edu or Dickinson County Extension Agent Carol Craver at 785-263-2001 / cmcraver@ksu.edu. Go to http://highlandcc.edu/pages/vineyard-workshop-series for more information about the entire schedule of workshops and list of topics. (WU)

Kansas High Tunnels Bus Tour - Thursday, May 31, 2012

Come and learn about high tunnel production from some of the most experienced fruit and vegetable growers in Kansas. We will be touring several farms, including the Olathe Horticulture Research and Extension Center. The bus tour is sponsored by the Kansas Department of Agriculture and is supported by a Specialty Crop Block Grant. The support of the KDA has allowed us to offer this tour at a discounted rate of $20 per person (lunch included) for 50 participants. If we have enough demand, we may rent an additional bus to allow for up to 100 registrants. However, if this happens, we will have to charge $30 per person. Registration is first come, first serve, so book your seat on the tour ASAP. For more information, go to Kansas High Tunnels Bus Tour.
Controlling Yellow Nutsedge in Lawns

Yellow nutsedge is a relatively common problem in lawns, especially in wet years or in lawns with irrigation. Although it looks much like a grass, it is a sedge. Unlike grasses, sedges have triangular stems, and the leaves are three-ranked instead of two-ranked, which means the leaves come off the stems in three different directions. Yellow nutsedge is pale green to yellow and grows rapidly in the spring and early summer. Because of this rapid shoot growth, it sticks up above the rest of the lawn only a few days after mowing. This weed is a good indicator of poor drainage, but it can be introduced into well-drained sites through contaminated topsoil or nursery stock. As with many weeds, nutsedge is less competitive in a dense, healthy lawn than in an open, poor lawn.

Nutsedge is difficult to control culturally because it produces numerous tubers that give rise to new plants. Pulling nutsedge will increase the number of plants because dormant tubers are activated. However, it is possible to control nutsedge by pulling, but you must be persistent. If you are, eventually the nutsedge will die out.

If you were going to treat with an herbicide, it would be better to leave the nutsedge plants undisturbed so the herbicide can be maximally translocated to the roots, rhizomes, and tubers. Several herbicides are available for nutsedge control. Sedge Hammer, which used to be called Manage, is the most effective and safe for most turfgrasses. It is also the most expensive, but if an infestation is not too severe, one application should take care of the problem. The Sedge Hammer label says to apply it after nutsedge has reached the three- to eight-leaf stage. Waiting until this growth stage apparently results in improved translocation of the active ingredient to the underground tubers and rhizomes. However, research has shown that the application should go down by June 21. If the initial spray is after June 21, mature daughter tubers may be stimulated to grow.

Small packages of Sedge Hammer are available to homeowners. Using a non-ionic surfactant with the Sedge Hammer will give better control.

(WU)

VEGETABLES

'Staggering' Sweetcorn Planting

Sweet corn is one of those crops that is only "good" for a few days. If you want longer periods of production, consider staggering the planting. In other words, plant a small block, wait a period of
time, and then plant the next block. Though it is tempting to follow a calendar schedule, such as planting a small block every week, it is better to use crop development as a trigger. If you plant on a calendar schedule, you may have noticed that later plantings often catch up with earlier ones. Instead, plant the next block of sweet corn when the previous one is one-half to one inch tall. (WU)

FRUIT

Fruit Sprays and Spray Water pH

Two of the common pesticides used in fruit tree sprays are malathion (for insects) and captan (for diseases). Unfortunately, both of these products are subject to alkaline hydrolysis. This is a process whereby certain pesticides will break down when mixed with high pH water. So let’s say you mix up your spray mixture by adding malathion and captan to 5 gallons of water. If that water has a pH of 7, the captan will break down so that only half of it will still be present in 3 hours. However, if the water you use has a pH of 8, half the captan will break down in 10 minutes. Malathion isn’t nearly as sensitive but still will break down under high pH conditions though it is stable at a pH between 5 and 7. Note that alkaline hydrolysis does not affect all pesticides. Captan is the exception, not the rule. For a listing of common pesticides and their susceptibility to alkaline hydrolysis, see http://www.nysaes.cornell.edu/pubs/fls/OCRPDF/118.pdf

So how do you bring down the pH of your spray water if it is high? Commercial people use buffering agents but that may be difficult for homeowners to find. Food grade citric acid can help. If you have a pH of 8.0, add 2 ounces of this citric acid per 100 gallons of water (1 and 1/4 teaspoons per 10 gallons) to bring the pH down to about 5.5 (WU)

FLOWERS

Iris Bacterial Soft Rot

Bacterial soft rot of iris causes a smelly and slimy rot of the leaves and rhizomes. Leaves often separate easily from the rhizome. Heavily infested plants may die.

Though most often associated with iris borer, environmental damage can also provide an entry point for this disease. We have seen such damage this year though we are not quite sure of the cause. Possibly the warm winter and early growth allowed cold snaps to cause more damage than usual.
Rhizomes that show extensive signs of damage should be discarded. If there is a plant that has special value, you may wish to try to save it. The American Iris Society suggests using a spoon to remove all infected tissue. Then, allow the rhizome to dry in the sun. Finally, use a chlorine based cleanser to powder the wound. Dousing in place with Dial antibacterial soap (with triclosan) can be substituted for the chlorine based cleanser.

When dividing rhizomes from beds that have shown evidence of soft rot, disinfect the knife between cuts of even apparently healthy rhizomes with a 10% bleach solution or rubbing alcohol.

As mentioned previously, iris borer damage can provide a place of entry for this disease. To control iris borers, remove and discard dead leaves in the fall to eliminate a number of the iris borer eggs. Larvae can also be killed by hand in June by squeezing infested leaves in the vicinity of the injury. During division, borers in lightly infested rhizomes can be killed by poking them with a piece of wire. Borer control can also be achieved through the use of imidacloprid (Merit, Bayer All-In-One Rose & Flower Care, Bonide Systemic Granules, Hi-Yield Systemic Insect Granules) or through the use of the parasitic nematodes Steinernema carpocapsae or Heterorhabditis bacteriophora.

Imidacloprid should be used as a drench (directions on label) when the air temperature reaches 70 degrees two days in a row.

The parasitic nematodes must be applied when the soil temperature is above 50 degrees F. Use 1 quart water/nematode mix per square foot to allow the nematodes to swim to the pest. Steinernema carpocapsae gave better control (100%) than Heterorhabditis bacteriophora (87%) in research conducted by the University of Maryland. (WU)

PESTS

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 Rotenone or permethrin (numerous trade names). 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)

**Variegated Cutworm**

![Variegated Cutworm](image)

The Wichita area has reported numerous instances of damage from the variegated cutworm, especially on hosta. This greasy-looking moth larva will feed on a wide variety of plants including garden crops and ornamentals. Newly transplanted crops such as tomatoes and peppers can be cut off at or near ground level.

Though populations are high now, cutworm moths tend to leave the area in which they emerged, thus thinning the population. Predators and parasites also take their toll. However, other control measures may be needed.

For recently transplanted crops, a physical barrier such as a cardboard cylinder pushed into the soil and extending several inches above soil level or a wrap of aluminum foil around the stem can discourage these pests. For established plants or if physical barriers around transplants are not used, spinosad (Fertilome Borer, Bagworm, Leafminer & Tent Caterpillar Spray; Captain Jack’s Dead Bug Brew; Monterey Garden Insect Spray) or permethrin (numerous trade names) are effective controls. (WU)

**Lecanium Scale**

![Lecanium Scale](image)

There are about a dozen different species of soft scales collectively known as lecanium scale. But life histories are similar enough to treat them as a single entity for the purposes of this article. Normally, damage from lecanium scale is slight with "honeydew" raining down on anything under affected trees. Sooty mold, a fungus that feeds on the honeydew, can turn branches and leaves black. Branch dieback is possible with large populations.

Predators and parasites normally keep lecanium scale under control, but there are times when the population of beneficials is too low to provide immediate control. Unfortunately, later instars and adults are virtually impossible to control with insecticides. Only the crawler stage is susceptible, and the time of crawler emergence varies from year to year.
If you feel insecticides are necessary, target the crawler stage as it migrates from the dead mother's body to the leaves. This usually occurs about the time yucca plants flower. Trapping adults has shown that this week is a good time to apply treatments in Wichita as the crawlers are out. Apply a followup spray in another 10 days. More northern locations may want to wait until the yucca flowers.

Registered products include permethrin (numerous trade names) cyfluthrin (Tempo, PowerForce Multi-Insect Killer Concentrate), carbaryl (Sevin) and malathion. Though too late to apply now, imidacloprid (Annual Tree and Shrub Insect Control, Max Tree and Shrub Insect Control, Bonide Systemic Granules IC, Bayer Tree and Shrub Insect Control) can be applied in the fall. (WU)

**ORNAMENTALS**

**Accumulated Stress May Result in Death of Plants (Repeated)**

We rarely repeat an article in this newsletter but we continue to receive reports of trees and shrubs being slow to leaf out, losing branches or not leafing out at all. The cause in most of these cases appears to be stress-related. Last summer was very hot and dry and placed a number of plants under stress. This was followed by a warm, dry, open winter which further stressed root systems.

Trees that lose individual branches should have those branches cut out. Note that there are other possible causes of branch loss such as verticillium wilt. You may want to take a sample to your county extension office to have them send it through our plant disease lab on campus if you suspect disease rather than stress. To find out more about verticillium wilt, go to [http://www.hfrr.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=1737](http://www.hfrr.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=1737).

Trees that are slow to leaf out need to be given some extra care so that further stress is avoided. See the last paragraph in the article for recommendations.

We may see more damage as we transition into summer weather. Plants may wither seemingly overnight. These trees may have died earlier but had enough food reserves to put out leaves and even to grow for a period of time. When the food reserves become depleted, the plants die suddenly. Another possibility is that the root system was damaged last summer and winter from drought. The tree has enough roots to keep up with moisture demands now but may collapse when the weather turns hot and moisture demands rise. Be careful not to confuse this sudden decline with feeding damage from May beetles or other insects. May beetles will strip a tree of leaves rather than leave them wilted and dead on the plant. Healthy trees will easily recover from May beetle damage by throwing out a new set of leaves. Before any tree is cut down, check the twigs. Dead trees will have brittle, dry stems that snap. Live stems may break, but they won’t be dry. If the tree is still alive, give it time to put out a new set of leaves.
If you suspect you have plants under stress, try to water them once a week during hot weather if we do not receive rainfall. Watering every two weeks should be adequate during cool weather for established trees. Trees should be watered to a depth of 12 to 18 inches if possible. Water from the trunk out the edge of the branches. If you use a soaker hose, connect it to a Y-adapter so that both the beginning and ending of the hose are connected to the Y-adapter. This will equalize pressure. Though this will not reach all the roots of a tree, it will reach enough of them to make a difference. Trees normally have at least 80 percent of their roots in the top foot of soil. Shrubs should be watered to a depth of 8 to 12 inches. Check the depth of watering by pushing a wooden dowel or metal rod into the soil. It will stop when it hits dry soil. (WU)

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