

# Horticulture 2023 Newsletter

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**Video of the Week:** [Harvesting and Storing Onions](#)

## REMINDERS

- Sidedress tomatoes when they are full size but still green. Do not overfertilize tomatoes as this will prevent them from producing fruit. <https://tinyurl.com/y7d5ns2z>
- Core aerate zoysia to prevent thatch buildup and aerate soil.

## ANNOUNCEMENTS

### Kansas Turf & Ornamentals Field Day

The Kansas Turf & Ornamentals Field Day will be held Thursday, August 3 at the K-State Research Center in Olathe (35230 W. 135th).

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 a copy of the program and to register to attend, go to <https://www.kansasturfgrassfoundation.com/>

## VEGETABLES

### Onions: Harvest and Storage



As onion bulbs reach maturity, the tops fall over to the ground. When one-half of your crop of onions have tops that have fallen over it is time to harvest. Either dig or pull the onions from the ground, keeping the tops intact. Before storing, the onions need time to cure. Hang them in a warm location out of direct sunlight that has good airflow. In two to four weeks the tops should be dry. Cut the roots and tops so only 1/2 -inch remains. Store the bulbs in a container that allows air flow such as a mesh bag. The bulbs need to be kept in a room with cool temperatures (32-40 degrees F) and low

humidity. (Cynthia Domenghini)

## Squash Vine Borer



### *Description*

If you've noticed your summer squash plants suddenly wilting, even in the cooler morning hours, you may have squash vine borer larvae feeding on your plants. The adult squash vine borer is the clearwing moth. It is about ½-inch long with metallic-green front wings and clear back wings. The abdomen is orange with black spots. Squash vine borer eggs are very small, flat and brown. The larvae resemble maggots with a whitish/cream colored one-inch long body and brown head.

### *Life Cycle*

There is one generation of squash vine borer each year. From late June through early July the adult moths emerge from the ground and lay eggs. In about one week the eggs hatch and larvae begin feeding within the stems of squash plants. After eating for four to six weeks they pupate in the soil until the following summer.

### *Damage*

Squash vine borers feed on summer and winter squash as well as pumpkins causing yellowing leaves and wilting. If you notice holes in the stems near the base of the plant look for a sawdust-type material that is moist and green/orange in color. This is evidence of borers.

### *Control*

Treating plants with active larvae is difficult. It is best to monitor plants for the adult moths and treat before the larvae can infest the plants. Another suggestion is to plant a second crop of summer squash in early July so the crop will mature when the borers are pupating rather than when they are most active. Crop rotation is very important to prevent the spread of this pest due to how they overwinter in the soil. Once you know borer larvae are present you can slice open the stem to attempt to locate the borer(s) and manually remove them.

Insecticide applications need to begin when the squash vines begin to spread and reapplied every seven to 10 days through the end of June. Direct spray the crown of the plant and the base of runners. Chemicals that may be used for borers are permethrin (Eight Vegetable, Fruit & Flower Concentrate; Garden and Farm Insect Control; Lawn & Garden Insect Killer) or bifenthrin (Hi-Yield Bug Blaster II, Bug-B-Gon Insect Killer or Lawns & Gardens) applied as sprays or dusts. (Cynthia Domenghini)

## Raccoons and Sweet Corn



It seems the official sweet corn inspector should be the raccoon as they seem to harvest the sweet corn the day before it is to be picked. The only effective control measure I have had success with is fencing; either electric or kennel fencing. First are some suggestions for electric fencing. Other designs may very well work but this is what has worked in my garden.

– Two or more wires must be used. Place the first about 5 inches above the ground and the second 4 inches above the first (or 9 inches above ground). Raccoons must not be able to crawl under, go between or go over the wires without being shocked.

- Fence posts used for electric fences work well for this application (go figure), as do the insulators used to support the electric wire.
- It is much easier to use the woven electric wire with strands of wire embedded than to use a solid metal wire. The woven wire is easier to bend around corners and to roll up when done for the year.
- Though both the plug-in and battery operated fences work, the battery operated types allow more versatility in where corn is grown. One set of batteries is usually sufficient for the season.
- Start the charger before the corn is close to being ripe. Once raccoons get a taste of the corn, they are more difficult to discourage.
- Control weeds near the wire. Weeds can intercept the voltage if they touch a wire and allow raccoons entry beyond the weed.
- Check the wire occasionally to make sure you have current. This can be done easily (but unpleasantly) by touching the wire. There are also tools that will measure the voltage available for sale. They are worth the money.

As mentioned earlier, kennel fencing can also be used. Make sure that the panels are tied together well enough that raccoons can't squeeze through corners. A covering over the top may be needed if the raccoons figure out how to climb the panels. Welded garden fence can work well for this. (Ward Upham)

## Sweet Corn Earworm



Though the sweet corn earworm can attack other crops, sweet corn seems to be a preferred diet. With multiple generations per year and high counts by the end of the growing season combined with the difficulty of treating active larvae, these pests require the grower to be proactive.

### *Description*

The adult sweet corn earworm moth has a wingspan of 1 to 1 ½-inches. The forewings of the male are light yellowish-green while the female moth has yellowish or pinkish brown forewings. There is a dark spot in the center of the wings. Newly hatched eggs are white and dome-shaped but the color changes to a reddish-brown. Larvae range in color including yellow, green, red and brownish-black. The head is brown and tiny hairs cover the body.

### *Life Cycle*

Sweet Corn Earworm overwinters in the soil. Adults emerge from underground and females lay eggs on the fresh silk of corn plants. Eggs hatch within two to five days. The larvae begin eating the silk and then move to the ear. Larvae reach maturity in 14 to 16 days, drop to the ground and pupate, beginning the next generation.

### *Damage*

Earworms initially feed on corn silks, but move to feeding on the kernels. Damage is typically restricted to the top 1 to 1 ½-inches of the cob. There is usually only one earworm feeding per ear because they will cannibalize others.

### *Control*

Once the earworm has reached the ear, control is futile. The shucks serve as a protective barrier for the worm making pesticides ineffective. It is important to monitor the area for adult earworms and treat the crop every few days while new silks are growing. As the adults lay eggs the larvae will feed on the treated silks and die before making it to the ear. Insecticides are only needed the first two weeks of silking as that is the busy feeding time for the larvae.

Homeowners can use cyfluthrin (Baythroid) or spinosad (Captain Jack's Dead Bug Brew; Natural Guard Spinosad, Monterey Garden Insect Spray). Spinosad is an organic product. Commercial growers have additional choices including zeta-cypermethrin (Mustang Max), bifenthrin+zeta-cypermethrin (Hero), spinetoram (Radiant) and flubendiamide (Belt). (Cynthia Domenghini)

### **Tomato Plants Look Healthy but aren't Setting Fruit**



With the high daytime temperatures lately, you may notice your otherwise healthy tomato plants failing to produce fruit. When daytime temperatures reach above 85 degrees F it interferes with pollination and can cause the plants to abort their flowers. The optimal temperature for tomatoes to fruit is between 70 and 85 degrees F. Once the weather returns to more moderate temperatures the plants will resume fruit production. During the period of slowed fruiting, ensure plants are receiving proper care to reduce the amount of stress.

There are some varieties of tomatoes that are less sensitive to the heat including cherry tomatoes and some larger, slicing tomatoes, but the heat tolerance is only a few degrees different. (Cynthia Domenghini)

## **FRUIT**

### **When to Pick Blackberries**



Since blackberries do not continue to ripen after harvest, it is important to pick them at peak maturity to get the best flavor. As blackberries ripen the color intensifies to a shiny blue-black. At maturity the color loses its shine and is more dull when it's ready for harvest. It is best to harvest during the cool hours of a dry day. Gently hold the blackberry between your thumb and forefinger and lift it up and down. The stem should easily break if the fruit is ripe. Unlike raspberries, blackberries remain attached to the receptacle which is the part attached to the stem. Therefore,

blackberries are not hollow upon harvest like raspberries are. Freshly harvested blackberries should be refrigerated, unwashed. If kept in high temperatures for long the shelf-life will be shortened.

Depending on the weather and the cultivars you are growing, plan to harvest blackberries every three to five days. (Cynthia Domenghini)

### Renewing Strawberry Beds



After the strawberry harvest, it's time to prepare the beds for the next season. The fruiting buds for the following year develop in the fall so it is important to do the bed renovation as soon as possible.

First, address weeds in the beds. Either remove them by hand if the problem is minimal or use an herbicide as needed. Next, mow the strawberry beds at least two-inches tall. The goal is to remove the leaves while protecting the crowns of the plants. Cultivate between the rows to remove any rogue plants that will compete for water and nutrients from the desired plants.

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.

Finally, give the plants about an inch of water to soak the fertilizer into the rootzone. Ensure the beds are receiving at least one-inch of water per week during the summer either from the rain or supplemental irrigation. Weeding regularly throughout the summer is important to reduce competition and give the strawberry plants the best chance for a productive fruiting season next summer. (Cynthia Domenghini)

## TREES

### Dutch Elm Disease (DED)



People often assume that all of our American Elms have been killed by Dutch elm disease. Fortunately, such is not the case. Though many have survived thus far, the number diminishes each year. We are still seeing examples of Dutch elm disease on American elms. Though American elms are the species often associated with this disease, red and some hybrid elms are also susceptible. Siberian elm (sometimes referred to as Chinese elm) and the true Chinese elm (Lacebark elm) are considered resistant but not immune to the disease. However, we do have true American Elms that are

naturally resistant. Our January 24 issue of this newsletter has an article on these cultivars. That article can be found at:

<https://www.ksuhortnewsletter.org/newsletters/dutch-elm-disease-resistant-american-elms1935833>

Early diagnosis can help save recently infected trees. Look for branches with leaves that have wilted and suddenly turned yellow to brown. Remove a portion of the branch and peel back an area of the bark. If you notice brown streaking in the sapwood, you may have Dutch elm disease. Healthy bark is more cream-colored and the streaking is absent. Suspect wood should be submitted to the diagnostic lab and control measures started immediately.

Dutch elm disease can often be controlled through the use of systemic fungicide injections, judicious pruning of affected trees and removal of nearby diseased elms. However, trees infected through root grafts with nearby infected elms or those in which the disease has reached the main stem cannot be saved. Therefore, preventative measures have a better chance of success and are preferred. Fungicides labeled for Dutch elm disease include Arbotect and Alamo. The Arbotect fungicide is preferred because it is the most persistent with a three-year interval between injections. Alamo may need to be applied every year in high risk areas with high value trees. A trained arborist should administer injections. These treatments are quite expensive. Check with your local arborist for current prices.

Megan Kennelly, one of our plant pathologists, has a more detailed discussion of this disease in our Turf Blog. See <http://blogs.k-state.edu/turf/dutch-elm-disease/> (Ward Upham)

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