Horticulture 2025 Newsletter No. 11 June 24, 2025

1712 Claflin, 2021 Throckmorton Plant Science Center Manhattan, KS 66506 (785) 532-6173

ANNOUNCEMENTS

K-State Garden Hour Wednesday, July 2, 2025 Noon to 1:00 PM CST Register here



A Look at KS Demonstration Gardens Wednesday, July 2nd 12:00PM -1:00PM CST

For this special edition of the K-State Garden Hour, join Extension agents Mathew McKernan, Markis Hill, Jason Graves, and Jay Harris, alongside Johnson County Master Gardener Coordinator Mary Mathew, as they highlight demonstration gardens across Kansas. Discover how these gardens serve as hubs for education, sustainability, and community engagement. Don't miss this unique opportunity to learn from leaders helping shape the future of gardening in Kansas.



Register Here!

Please register for this free Zoom Webinar at: ksre-learn.com/KStateGardenHour



Kansas Turf & Ornamentals Field Day Thursday, August 7, 2025

Rocky Ford Turfgrass Research Center in Manhattan

This Field Day program is designed for all segments of the turf & ornamentals industry — lawn care, athletic fields, golf courses, sod farms, landscape, nursery, and grounds maintenance. Included on the program are research presentations, problem diagnosis, commercial exhibits, and equipment displays. There will be time to see current research, talk to the experts, and get the answers to your questions. For more information and to register online, go to: www.kansasturfgrassfoundation.com

Commemorating Dr. Chuck Marr

Dr. Chuck Marr served as a Vegetable Crop Specialist for K-State Research and Extension for 36 years. He was an active member of the community and supported gardeners in many capacities throughout his retirement as well.

Chuck passed away in December of 2024. To honor the legacy of Chuck, many of his friends are coming together to designate a special area in the Kansas State University Gardens in his name. The Riley County Extension Master Gardeners and the Manhattan Watercolor Group are leading this meaningful tribute and warmly invite others to participate.

Chuck was a strong advocate for the Gardens on campus. We envision dedicating the main vegetable growing bed in



the Gardens in Chuck's honor. This space, where he spent so much time nurturing plants and educating others, would be a fitting tribute.

The sponsorship level for this area is \$15,000. We hope to raise the total amount collected by July 15 to ensure recognition in the Gardens. If you would like to contribute, donations can be made to Kansas State University Foundation in the following ways:

- Online: Donation · <u>Kansas State University · GiveCampus</u>
- *By phone*: 785-775-2400
- By mail: Send checks payable to: Kansas State University Foundation 1800 Kimball Ave., Suite 200 Manhattan, KS 66502 Please include Fund # M47497 (Chuck Marr) in the memo

Thank you for considering this request in memory of Dr. Chuck Marr. If you have any questions or would like additional information, please feel free to reach out to Riley County Extension Agent, Gregg Eyestone at 785-410-5336 or geyestone@ksu.edu.

GARDEN TO-DO

- Renovate strawberry beds after last harvest by cutting off leaves, fertilizing and narrowing row to 10 inches.
- Plant Fall Squash and Pumpkins
- Tip blackberries, black raspberries and purple raspberries as needed.
- Sidedress tomatoes when they are full size but still green. Overfertilizing will prevent them from producing fruit.
- Core aerate zoysiagrass to prevent thatch buildup

FRUIT

Renewing Strawberry Beds



As you wrap up strawberry harvest time the beds should be prepared for next season. In the fall plants will develop fruit buds so renovating the beds now is important to avoid disturbing the plants later.

Begin by removing any weeds. Next, mow the strawberry plants down to two-inches tall. This will cut back the leaves but protect the crowns. Between the rows, cultivate the soil to remove

any plants that can create competition for the desired strawberry plants.

Fertilize strawberry plants with $\frac{3}{4}$ to 1 pound (3-4 cups) of a complete fertilizer such as 13-13-13 (nitrogen-phosphorus-potassium) on each 25 feet of row. If a soil test shows adequate levels of phosphorus and potassium use $\frac{3}{4}$ pound (1.5 cups) of a 16-0-0 fertilizer instead. Lawn fertilizer with 30% nitrogen such as 30-0-3 or 28-0-3 can be used if nitrate of soda is unavailable but do not use one that has a weed killer or preventer. Use at a rate of $\frac{3}{4}$ cup per 25 row feet.

Soak the fertilizer into the rootzone with about one-inch of water. Each week of the summer strawberry beds should continue to receive at least one-inch of water either from rain or irrigation. Maintain weeds throughout summer to reduce competition.

Squash Bugs



PESTS

Description: Eggs are 1/16-inch in diameter and change from light brown to dark red. Young nymphs are pale green with red antennae which later turn black. As the nymphs develop, they turn a light to dark grey color. Mature nymphs are up to ½-inch long and wingless. Adults are ½ to ¾-inch long and dark-brown in color. The wings are brownish-black with orange markings on the outer edge of the body. If crushed, adult squash bugs emit a foul odor.

Life Cycle: Squash bugs overwinter as adults. From late-May through June they seek a plant host. From June through mid-August, after mating, females lay eggs in clusters on the stems and undersides of leaves. Within 7 to 14 days nymphs hatch and go through multiple stages of development. By 4-6 weeks, the adult squash bug is fully developed.

Damage: The primary hosts for squash bugs include summer/winter squash and pumpkins but they will feed on other cucurbits as well. Adults and nymphs have piercing-sucking mouthparts which they use to suck fluids from leaves, stems and fruits. Young plants are at a great risk for destruction from squash bugs, though mature plants can be severely damaged as well if the pest population is high. Damage appears as small yellow specks on leaves. Stem damage causes



wilting and leaves will dry up and shrivel. Feeding on fruit affects the quality by causing distortion and scarring along with sunken areas.

Control: Preventative management is the best recommendation. Scout for pests in the garden regularly. Look on the undersides of leaves and the stems for eggs early in the season. Remove plant debris to reduce overwintering habitats. Physically remove and destroy eggs, nymphs and adult bugs from plants as you find them. Use floating row covers, if garden size allows, to exclude pests from accessing plants.

Horticulture oils can be effective if applied on eggs. Young nymphs can be controlled with insecticides. Weekly application may be necessary for complete control. Adult squash bugs have a thick, waxy cuticle that makes insecticides ineffective. Ensure thorough coverage of the plant for best results. See your local extension agent for recommendations.

Hornworms on Tomatoes



Description: The larval stage is a 3 ½ to 4-inch long pale, green caterpillar. There are five pairs of prolegs and a horn on the last segment. The tobacco hornworm has seven diagonal white stripes and usually a red horn. The tomato hornworm has V-shaped markings and a blue/black horn. The adult moth has a stout, grayish-colored body with wings that span 4 to 5 inches.

Life Cycle: In the larval stage the hornworm caterpillar passes through four or five stages before reaching full size. This process takes about one month. The caterpillar pupates in the soil giving rise to an adult moth. The adult of the tobacco hornworm is the Carolina sphinx moth. The adult of the tomato hornworm is the five-spotted hawk moth. There are two generations each year.

Damage: Hornworm larva are the damaging stage and are typically found on tomatoes, but feed on eggplant, peppers and potatoes as well. Caterpillars devour leaves and stems leaving behind dark green or black droppings.

Control: Hornworms are parasitized by several insects including the small braconid wasp which lays eggs on the larva. When the eggs hatch, the wasp larva feed on the hornworm devouring it from the inside killing the hornworm.

To avoid harming beneficial insects, handpicking hornworms is the recommended control. Hornworms camouflage themselves among the leaves making it difficult to find them.



Bt (Dipel, Thuricide), Spinosad (Conserv, Captain Jack's Dead Bug Brew, Monterey Garden Insect Spray), cyfluthrin (BioAdvanced Vegetable & Garden Insect Spray) are a few insecticides that can be effective at controlling hornworms. Always follow label instructions and pay close attention to the harvest interval.

Sweet Corn Earworm



Description: Adult earworm moths have a wingspan of one to 1-1/2 inches. Males have light yellowish-green forewings. Females have yellowish or pinkish brown forewings. The center of the wings has a dark spot. Newly hatched eggs are white and dome-shaped but the color changes to reddish-brown. Larvae can vary in color including yellow, green, red and brownish-black with a brown head and hairs covering 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 14-16 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 1-1/2 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 ineffective. The shucks serve as a protective barrier for the worm. It is important to monitor the area for adult earworms and treat the crop every few days while new silks are growing. As 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, as an organic option, Spinosad (Captain Jack's Dead Bug Brew; Natural Guard Spinosad, Monterey Garden Insect Spray).

Squash Vine Borer



Description: The clearwing moth is the adult of the squash vine borer and is about ½-inch long with metallic-green front wings and clear back wings. The abdomen is orange with black spots. Eggs are flat, brown and very small. Larvae resemble maggots with a whitish-cream colored body about one-inch long with a brown head.

Life Cycle: From late June through early July adult moths emerge from the ground to lay eggs. Eggs

hatch in about one week and begin feeding within the stems of squash plants. In four to six weeks the larvae pupate in the soil until the following summer. There is one generation of squash vine borer each year.

Damage: Squash vine borers feed on summer and winter squash as well as pumpkins causing yellowing leaves and wilting. Holes in the stems near the base of the plant along with the appearance of a sawdust-type material that is moist and green/orange colored are symptoms of squash-vine borer. One of the first indicators of a problem is when squash plants are wilted even during cool parts of the day.

Control: Treating plants that have active larvae is difficult. It is best to monitor plants for the adult moth and treat before the larvae can infest plants. Planting a successive crop of summer squash in early July is another control method. This allows the crop to mature when the borers are pupating rather than when they are most active. Crop rotation is another important control measure. Borers can be manually removed by slicing open the stem if you know the pest is present. Insecticide applications need to begin when the squash vines start to spread. Applications should be repeated every seven to ten days through the end of June. If using an insecticide, spray the crown and the base of the runners.

Some 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 Lawn and Garden) applied as a spray or dust.

TURF

Grub Control in Lawns



If you've dealt with an excessive number of grubs in the lawn previously you may choose to apply a pesticide containing imidacloprid. This active ingredient is safe and effective at killing the grubs before they damage plant roots. Apply the product by mid-July and water it in if rain is not expected within 24 hours.

Controlling Yellow Nutsedge in Lawns

Yellow nutsedge often appears in lawns when the soil is moist. Some identifying features of yellow nutsedge include:

- Yellow inflorescence
- Yellow-pale green leaves
- Tapered leaves with sharp point
- Triangular stem with leaves growing in three directions
- Rapid growth extending above the turfgrass within days of mowing.

The best control of yellow nutsedge is maintaining a healthy, dense lawn. Nutsedge spreads by tubers which can produce



numerous plants. Manually pulling yellow nutsedge can activate dormant tubers which send up new growth, but with persistence over multiple seasons it can be eradicated. If using an herbicide, it is important to apply before tuber production for the best control. The first application should usually be applied by June 21 before plants mature. Here are some herbicide options for home gardeners.

- SedgeHammer and Hi-Yield Nutsedge & Horsetail Control (active ingredient: halosulfuron)
- Bonide Sedge Ender, Ortho Nutsedge Killer & Spectracide Weed Stop for Lawns plus Crabgrass Killer (active ingredient: sulfentrazone)

Always follow label instructions and pay attention to turfgrass species tolerance for herbicide treatments.

VEGETABLES

Tomato Leaf-Spot Diseases



Septoria Leaf Spot appears initially as small, watersoaked spots on the lower leaves. The centers of the spots turn light tan or gray while the margins remain dark. Dark-colored fungal fruiting structures form in the spots which are typically smaller and more numerous than early blight spots. *Early Blight* symptoms appear as irregular, brown lesions or spots on the leaves up to ½-inch in diameter. The dark, concentric rings in the lesions give the spots a target-like appearance. This is a distinguishing symptom to identify the disease. Several lesions

can merge together and cause the leaf to yellow, dry up and drop prematurely. Leaf drop reduces the plant's ability to photosynthesize thus reducing the energy and vigor of the plant. It can also expose fruit to an increased risk of sunscald. Early blight lesions can develop on the stem and fruit as well.

In Kansas, Septoria leafspot tends to be more common than early blight. Both fungi overwinter in plant debris, on seeds or weeds.



Spores can splash or blow onto tomato plants. Warm, humid weather and heavy rainfall favor development of Septoria leafspot and early blight.

Harvesting and Storing Onions



As onions reach maturity the tops begin to fall over. It is time to harvest when at least one-half of the tops have fallen over. Onions can be pulled or dug up leaving tops intact. Hang the bunches or spread them out but ensure they have good airflow and are out of direct sun in a warm location. It can take two to four weeks for the tops and necks to dry completely. Once dried, cut the tops and roots to ½-inch from the bulb. Store bulbs in a container

that allows air to circulate such as a loose basket, crate or mesh bag, at 32-40 degrees F with low humidity. If the temperature is too warm the onions will sprout. If the room is too moist roots will develop.

Tomato Plants Look Healthy but Aren't Setting Fruit



Summer heat is upon us which can impact our tomato plants. When the daytime temperature rises above 85 degrees F pollination can be reduced which causes plants to drop flowers. Tomatoes perform best when the temperature stays between 70- and 85-degrees F. Fortunately, our weather often returns to this range after a heat wave and tomato plants resume fruit production. Even when plants are not producing fruit ensure they are

receiving proper care to minimize stress and keep them healthy.

Though some varieties of tomatoes are less sensitive to the heat than others, their tolerance is only a few degrees different.

QUESTION of the WEEK



Cleaning up Asparagus I have finished harvesting my asparagus. When should I remove the tops off

Asparagus tops should not be removed until after a killing freeze. The tops have the important role of producing and transferring food to the plant roots impacting next year's growth. If plants are falling over and you want them to remain upright, set posts 10-12 feet apart and secure plants with twine.



Contributors:

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For questions or further information, contact: <u>hortsupport@ksu.edu</u> OR <u>cdipman@ksu.edu</u> This newsletter is also available on the World Wide Web at: <u>http://hnr.k-state.edu/extension/info-center/newsletters/index.html</u>

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