

Horticulture 2024 Newsletter

No. 27 July 8, 2024

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ANNOUNCEMENTS

2024 Kansas Turf and Ornamentals Field Day

August 1, 2024, at Rocky Ford Turfgrass Research Center in Manhattan, KS.

<https://www.k-state.edu/turf/events/2024TurfFieldDayProgram.pdf>

VIDEO OF THE WEEK: K-State Garden Hour

Solutions to Your Top Garden Insect and Disease Problems

Insects, diseases, and weather-related problems are always an issue in the landscape and garden. Learn to identify and solve the plant problems in your garden and where to go for more information.



GARDEN TO-DO

- Monitor plants for moisture and water as needed.
- Complete final pinching of chrysanthemums.
- Check for live bagworms, even if they were sprayed before, and respray if needed.

VEGETABLES

Cross Pollination



Cross pollination is when the pollen from one flower is transported to another flower. This happens within the same plant as well as between different plants (of the same species). Cross pollination results in seeds that have genes from both parent plants. The parent plants must be from the same family, but even then, not all members of the same family will be able to cross successfully.

It is a common misunderstanding that planting two different varieties of squash next to each other will affect the type of produce harvested that year. The fruit that results from this year's planting is determined by the mother plant. If you have purchased from a reliable seed source, the resulting produce should reflect that. If you are harvesting "weird-looking" squash, cucumbers or melons this season it is likely a result of cross-pollination that happened last year. The seeds may have been gathered from cross-pollinated plants or perhaps the plant is one that sprouted on its own after a fruit with cross-pollinated seeds decomposed in the garden last growing season.

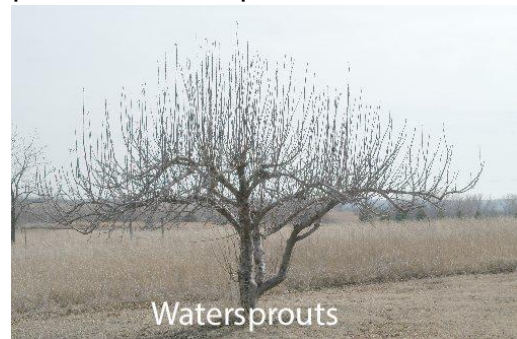
FRUIT

Remove Suckers and Water Sprouts from Fruit Trees



Water sprouts are vigorous growing, usually upright, branches that grow from dormant buds on larger branches or the trunk. They often develop after heavy pruning, though some trees are just more likely to produce water sprouts regardless. Suckers develop at the base of the tree or from the roots. Trees under stress are more likely to produce water sprouts and suckers.

It is important to remove water sprouts and suckers from the tree as they develop so the plants' energy is not wasted on their growth. Young sprouts can be easily removed by rubbing your hand over the growth. Larger branches can be pruned away as close to the trunk as possible.



PESTS

Japanese Beetles



Description: Similar in appearance to other June bugs, the adult Japanese beetle is 1/4 to 3/8-inch long with a shiny, metallic-green head. The body has bronze wing covers and five clumps of hair that border the sides of the abdomen. The larvae are cream-colored grubs with a light brown head about 1 ¼-inch long at maturity.

Life Cycle: Adult female Japanese beetles lay eggs in July beneath wet lawns. Upon hatching, larvae feed on the sod roots and overwinter until

the following summer. In June, the larvae pupate and adult beetles emerge to feed above-ground.

Damage: An extremely destructive pest, Japanese beetles feed on every part of the plant. The beetles skeletonize leaves and consume flowers and fruit entirely. Hundreds of varieties of plants can play host to this non-selective pest.

Control: Controlling Japanese beetles is a challenge this time of year as new adult beetles emerge from underground daily over several weeks. In small quantities, beetles can be manually removed from plants and dropped into a bucket of soapy water. Check plants daily to look for symptoms. Mornings are the best time to observe as beetles are slower and easier to catch.

There are many traps available that lure Japanese beetles into a container where the pests can be gathered and disposed of. However, some sources caution against using traps as the pheromones used to attract the beetles can draw in even more beetles than would naturally appear. Not all of these beetles may end up in the traps and the result could be greater damage to the plants.

Insecticides such as cyfluthrin (Tempo), bifenthrin (Hi-Yield Bug Blaster II) and cyhalothrin (Bonide Beetle Killer, Spectracide Bug Stop Indoor + Outdoor Insect Killer, Spectracide Triazicide, Bonide Caterpillar Killer) can be used for Japanese beetle control with about two to three weeks protection. Carbaryl (Sevin dust) can also be effective but only for about one to two weeks. The downside of using such products is they will also eliminate parasitoids and other natural predators. Neem products (Natural Guard Neem-Py, Fertilome Triple Action Plus) and Pyola (pyrethrins in canola oil) can offer control for three to four days.

Blister Beetles

Description: There are several varieties of blister beetles. Colors vary including solid black, black with a gray or cream-colored band, and grayish-brown with yellow stripes. The relatively soft body can be up to one-inch long. They have a broad head with a narrow neck-like structure attaching it to the rest of the body. The wings are soft and the mature adult has long legs. The antennae are about 1/3 the length of the body.



Life Cycle: Adult blister beetles lay masses of eggs in the soil during late summer. When the larvae hatch, they search for nests of grasshopper eggs and begin feeding on them. Throughout several molts the larvae develop more prominent legs. The late-stage larvae are the most active and leave the grasshopper nest to pupate underground the following summer. The adult emerges 10 to 20 days later. There is one generation per year.

Damage: Blister beetles feed primarily on flowers but will consume leaves as well. Though damage can defoliate a plant entirely, blister beetles can also be great natural predators against grasshoppers. The name blister beetle is derived from the oily substance the insect emits, cantharidin, that is toxic and can leave blisters on human skin if it comes in contact.

Control: If removing manually, wear rubber gloves to protect the skin from blistering. If using chemical control for larger populations, permethrin (Bonide Eight and Hi-Yield Lawn, Garden and Farm Insect Control) is recommended. Permethrin has a 0-day waiting period for tomatoes.

Budworms on Garden Plants



Description: Budworms can be brown, purple, red or green depending on the host plant it's consuming. It has white stripes on the abdomen that run the length of the 1 ¾-inch body. There are hairs on the body as well. Adult moths are greenish-brown with a wingspan of about 1 ¼-inches.

Life Cycle: There are two generations of budworms each year with the second generation typically being the more destructive. The pupae

overwinter several inches beneath the soil surface during mild winters outdoors or in container plants that are brought indoors as well as in the soil of protected patios.

Damage: Budworms are common on petunias, geraniums, nicotiana, roses and other ornamentals. The larvae bore a hole through the flower buds and feed on the petals. Buds may drop prematurely or, if not, the resulting bloom will show damage from the feeding. Larvae also drop black feces on the buds.

Control: Manual removal can be effective if plants are monitored regularly. Winters with

temperatures that drop below 20 degrees F can kill overwintering pupae if they are not in protected environments.

Chemical controls such as permethrin (Bonide Eight and Hi-Yield Lawn, Garden and Farm Insect Control), esfenvalerate (Asana, Bug Buster II), bifenthrin (Hi-Yield Bug Blaster Bifenthrin) or gamma-cyhalothrin (Spectracide Triazicide). Products with the organic active ingredient Spinosad (Natural Guard Spinosad, Captain Jack's Dead Bug Brew, Monterey Garden Insect Spray) may also be effective.

MISCELLANEOUS

Fall Gardening



Ready or not it's time to start planning the fall vegetable garden. Fall gardens may face additional pressures of pests and heat, but the flavor that comes from these late season crops are often better. Fall planting requires attention to the number of days to harvest as well as the crops' tolerance to frost. Crops may be direct seeded or transplanted into the garden. Growing transplants is a good choice when the temperature is too

warm for starting seeds in the ground, if you have grow lights and space available for starting them indoors.

When seeding crops directly into the garden, plant slightly deeper than recommended in the spring to take advantage of the cooler soil temperatures and moisture available. Water more frequently to prevent the seeds from drying out. Overhead watering often causes soil to crust, making it more difficult for young, tender plants to emerge. Prevent this by applying a light sprinkling of vermiculite or compost over the row after seeding or use a soaker hose or drip irrigation right next to the row to allow water to slowly seep into the ground.

Mid-July:

Plant potatoes if you can find seed stock or have saved seed potatoes. Do not use freshly dug potatoes as they have a built-in dormancy that will prevent growth. Also, grocery store potatoes are often treated so they don't sprout.

Cabbage, broccoli, and cauliflower can be started from seed at this time. Choose a protected place where the soil can be kept moist and rabbits will not bother them. This will not be where they will grow the entire season but these crops will be transplanted about mid-August.

Late July:

Seed beets, carrots and beans.

Late July to Early August:

Seed spinach and long-season maturing lettuce. Leaf lettuce will be seeded later.

Second Week of August:

Transplant cabbage, broccoli and cauliflower to their final location.



Mid to Late August:

Seed radishes and leaf lettuce. No need to fertilize before planting. Side-dress two weeks after transplanting or four weeks after sowing seed by applying 2 tablespoons of a 16-0-0 or 1 tablespoon of a 27-3-3, 30-3-4 fertilizer, or something similar per plant.

The [Kansas Garden Guide](#) is a great resource for additional information about fall gardening.

Gardening in a Heat Wave



When the summer heat cranks up it is tempting to add water, but this is not necessarily what the plants need. On average, vegetables need about one-inch of water per week. During a heat wave (over 90 degrees F) it may be necessary to water daily or every other day but check the soil first.

Before adding water to the garden, insert your finger one to two inches into the soil and check for moisture. If the soil is wet, wait to add water. A layer of straw mulch, several inches thick can be added to the garden in advance of a heat wave to keep the roots cooler. Ensure plants have enough water before the heat wave. It is best to water as early as possible in the morning to reduce the amount of evaporation. Drip irrigation is the best option, but regardless of the method it is important to keep water off the leaves and close to the soil.

QUESTION of the WEEK



Why is my squash plant suddenly wilting?

I noticed my squash plant wilting the other day. It was fine the day before. It has plenty of water. What could be causing it?



If you notice sudden wilting on your squash (cucumbers, melons, pumpkins) look at the base of the plant just above the soil. Notice if there are any holes or oozing on the plant stems. Squash vine borer larvae are active this time of year tunneling and feeding on squash plant tissue. Stems can be cut open and borers destroyed, but the damage may be extensive enough that the plants do not survive. Preventative control is often necessary when plants first begin to send out runners.



Read more about [Squash Vine Borers](#) and their control.

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<http://hnr.k-state.edu/extension/info-center/newsletters/index.html>

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