

Horticulture 2023 Newsletter

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Video of the Week: [Knock Out Roses](#)

REMINDERS

- Tomatoes can be transplanted when the soil temperature is 55 degrees. Wait to transplant peppers and seed cucumbers and melons until the soil temperature is at least 60 degrees. Maybe wait a bit longer for sweet potatoes as we have plenty of time and want to make sure the soil is warm enough. See <http://mesonet.k-state.edu/agriculture/soiltemp/> for current soil temps. Use 7 day average.
- Wait until about mid-June to plant winter squash and pumpkins so they mature in cooler fall weather.
- Transplant annual flowers when soil temperature reaches 65 degrees.

VEGETABLES

Protecting New Vegetable Transplants from the Wind



Even after hardening off veggie transplants, it may be necessary to protect these young plants from the wind. Create a barrier between the transplants and the prevailing winds using available resources such as wooden shingles or even empty milk jugs or 2-Liter bottles with the top and bottom removed. It may be necessary to secure the barrier with a stake. (Cynthia Domenghini)

Straw Bale Gardening



Straw bale gardening is an innovative approach to overcome traditional obstacles in the garden. Using a straw bale as a natural raised bed allows gardeners with little to no in-ground space to raise a variety of annual crops. This technique requires a bit of preparation and as with many aspects of gardening, learning tips from more experienced gardeners can be useful.

" Ensure you are using straw and not hay to avoid introducing weeds

" Use the "small" straw bales that are about 2-feet high by 3-feet long

" Place the bales on the narrow edge so the twine is not in contact with the ground to prevent it from rotting and releasing the bale

" Place the bale where it will be planted prior to conditioning. Once conditioning begins it is difficult to move the bale.

Bale Conditioning

Conditioning is the process of preparing the bale for planting by encouraging the bale to begin decomposing. This creates a healthy base for plant roots to be established and grow throughout the season.

- " Water the bales and keep them wet for three days. The bale will heat up as decomposition occurs.
- " On days 4, 5 and 6, sprinkle fertilizer on top of each bale with 1 cup of ammonium sulfate (21-0-0) or ½ cup of urea (46-0-0). Water in the fertilizer. This speeds up decomposition.
- " On days 7, 8 and 9 continue to sprinkle fertilizer on each bale but reduce the amount by half.
- " Water the bale on day 10 (no fertilizer) and begin to monitor the bale temperature. When the temperature drops below 100 degrees F it is ready to plant.

Planting

- " Pocket method: Make a hole for each plant several inches deep into the top of the bale. Fill the hole with growing medium and plant.
- " Flat Bed Method: Cover the top of the bale with 3 to 4 inches of growing medium (well-aged manure, compost or potting soil) - This method works well for planting seeds.

Number of Plants per Bale

- " Cantaloupe: 2
- " Cucumber: 3-4
- " Peppers: 3-5
- " Squash (winter): 2
- " Squash (summer): 2-3
- " Tomatoes: 2-3

Watering

Straw bales dry out quickly so regular watering is essential for successful crops. A drip system set on a timer can be a good solution.

Some of this information was taken from a [publication](#) put out by Washington State University. (Cynthia Domenghini)

Storm Damage and the Garden



It's the season of high winds, heavy rainfall and hail for various parts of our state. Depending on the degree of damage the garden can rebound with some TLC though replanting is sometimes the best strategy.

Heavy Rain: After a forceful rain you may notice a thick crust develop on the soil surface. This is problematic as it prevents seeds from breaking through and can block oxygen from getting to the roots. To remedy this situation, lightly scrape the soil surface once it's dried using care to avoid damaging roots.

Standing Water: Standing water cuts off oxygen to the roots and can lead to damage if it is allowed to remain for more than 24 hours. Standing water along with hot, sunny weather can cause the plants to overheat, furthering the damage. This is a difficult situation to remedy other than creating a channel to allow the water to drain. Being proactive is most effective. Avoid having depressions in the landscape

that can retain water and incorporate organic matter into the soil to improve drainage as needed.

Hail Damage: Plants can tolerate some hail if the leaves are the only part damaged. If the stems and fruit are damaged replanting may be necessary depending on the severity.

Leaning Plants: Garden plants can self-correct if they start to lean due to heavy wind or water. Forcing them to stand up straight may cause further damage by breaking the stems. (Cynthia Domenghini)

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 but both can carry this disease. 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 permethrin (Bonide Eight Vegetable, Fruit & Flower Concentrate and Hi Yield Garden and Farm Insect Control). Once plants have started flowering, spray in the evening after bees have returned to the hive and the flowers are closed. (Ward Upham)

PESTS

Eastern Tent Caterpillar



Eastern tent caterpillars (*Malacosoma americana*), larvae (caterpillars) are emerging (eclosing) from eggs and feeding on the leaves of trees and shrubs. White, silken nests in the branch crotches of trees and shrubs including: birch, crabapple, hawthorn, mountain ash, poplar, willow and flowering cherry, peach and plum are signs of Eastern tent caterpillars. The nests are a protective habitat against the weather and natural predators.

Eastern tent caterpillars can be identified by the black body with a white stripe that extends the length of the body and blue markings on the sides of the body. They have five larval instars (stages between each molt) and are one of our earliest caterpillar defoliators. Feeding on newly developed leaves can harm the trees and shrubs as it reduces their ability

to photosynthesize and thus limits food production. Plants with compromised health are susceptible to further complications from pests and disease. Some plants are less likely to attract Eastern tent caterpillars due to the lower leaf nutritional quality. *Prunus serotina* trees grown in the shade have less nutritional value than those growing in full sun and therefore are less likely to attract Eastern tent caterpillars.

Young caterpillar instars (first through third) actively eat plant leaves during the day but remain in the nest at night and during overcast days. The final instar (fifth) caterpillar eats at night. Warmer weather promotes feeding for longer durations. Eastern tent caterpillars overwinter as an egg mass attached to branches or small twigs. Kansas has one generation of caterpillars per year.

Caterpillar nests can be removed by hand, with a rake or with a high-pressure spray of water. This destroys the caterpillar's protection and exposes them to predators such as birds. This is less effective for older caterpillars because their bodies are covered in hairs which is not desirable for predators. Insecticides containing the bacterium, *Bacillus thuringiensis* subsp. *Kurstaki*, or spinosad, as the active ingredient can be used to eradicate young caterpillars. These insecticides must be ingested to be effective since they are stomach poisons. For older caterpillars, approximately two-inches in length, pyrethroid-cyhalothrin, or permethrin insecticides can be used. Apply insecticides during the caterpillars' active period to increase exposure. Pyrethroid-based insecticides will harm beneficials, such as honeybees, as well so avoid applying when pollinators are active. Contact your county or state extension specialist for further information about controlling and managing the Eastern tent caterpillar. Check out the [Entomology Newsletter](#) for additional images. (Cynthia Domenghini)

MISCELLANEOUS

Ants and Peonies



Peonies produce a sticky, sweet nectar on the outside of buds which attracts ants and even bees. Ants do no harm to the developing flower and may in fact offer protection to the bud by warding off other insects that may feed on it. The exudate is a good energy source for ants as it is high in sugar. This symbiotic relationship is quite common on peonies and no control is needed to remove the ants. (Cynthia Domenghini)

Ladybird Beetles



Both adult and larvae phases of the ladybird beetle are beneficial to plants. Ladybird beetles feed on harmful insects such as aphids, mealybugs, whiteflies, scale insects and eggs of various other insects rather than on the plants themselves.

Ladybird beetle larvae commonly appear black with orange markings. They measure about 3/8-inch long with an alligator-shape covered in spines. (Cynthia Domenghini)

Useful Resource: K-State Extension Wildlife Management Web Site

K-State offers an excellent [resource](#) for safely managing wildlife. Learn about a variety of wildlife species as well as their habitats and methods for controlling their presence in your garden. (Cynthia Domenghini)



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