

Horticulture 2024 Newsletter

No. 5 February 5, 2024

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Video of the Week: [Cold frames and hotbeds](#)

ANNOUNCEMENTS



Gardening for a Changing Climate

Wednesday, February 7th 12:00PM -1:00PM CST

Gardening in Kansas doesn't come easy, as we often face weather extremes and drought conditions. With projected changes in our climate, gardening will be more challenging. Extreme events will require adaptation with plant selection, irrigation, and soil health. Join Dr. Charles Rice, Nobel Peace Prize winner and Kansas State University Distinguished Professor of Soil Microbiology, to learn how to overcome the challenges of gardening in a changing climate.



Register Here!



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



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It's the Final Countdown! Only one more week to tell us all about your experience using the K-State Hort Newsletter in 2023. We are here to support YOU so tell us how we can improve. We are almost to 100 responses. Thank you to everyone who completed the survey.



For everyone else, please take a few minutes to tell us what you want from YOUR 2024 Hort Newsletter. Follow this link (or scan the code). [Horticulture Newsletter Needs Assessment](#).

Tech Complications

As you know, K-State has experienced campus-wide IT complications. While some of the problems have been resolved, we are continuing to have issues with certain online resources. This is impacting some of the links shared through the newsletter. We apologize for this inconvenience and hope it will be repaired soon.

GARDEN SPOTLIGHT Request: Did you enjoy reading the Garden Spotlight last week, “Grandma House”? We would love to help you tell your garden story in the 2024 Hort Newsletter. Email Cynthia at cdom@ksu.edu to share your adventures with fellow gardeners.

GARDEN CALENDAR

- Start seeds indoors: Cabbage, Broccoli, Cauliflower, Lettuce

MENTAL HEALTH MONDAY

Waterscapes



Wasn't the sunshine and warmer weather last week lovely? It felt like a reward after enduring the icy blasts earlier in the month. I found myself walking around my yard begging the garden to give me a project.

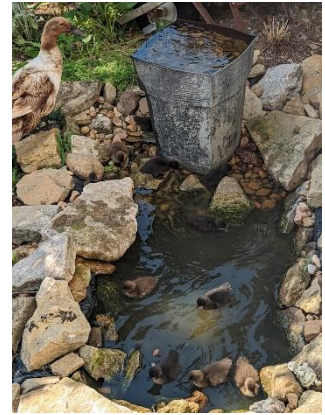
Living in a suburban cul-de-sac with a small yard, my gardening projects are somewhat restrictive. One feature my landscape lacks is water. Preliminary research suggests the presence of water in a natural space can benefit mental well-being. The sound of running water helps reduce noise pollution and provides a relaxing escape. Water attracts birds and other pollinators which also contribute to positive well-being. Whether a bubbling rock, pond or waterfall, sensory interests are piqued by waterscapes in the landscape.

There are myriad designs of fountains and ponds that will fit into any size garden. Water features don't have to be large and complex to provide benefits. In fact, creating a water feature can be a fun and relatively simple weekend project beginning with a container, such as a water trough or large flower pot, that will hold water. Of course, the project can be more involved incorporating a larger reservoir to invite wildlife.

Consider these points when deciding how to incorporate a therapeutic water feature into your landscape.

Accessibility: Though an isolated water feature can become a destination where visitors may venture to seek refuge, if it is too inconvenient to access it, the feature loses efficacy. By positioning the water feature close to pathways that are frequented regularly more people can enjoy the benefits. This also makes it easier to monitor the feature for maintenance concerns.

Interactivity: Being able to hear the water feature is one way humans can interact. Provide a bench nearby to encourage visitors to rest, watch and listen to the feature. Depending on the type of feature it may be possible to allow play in the waterscape. Is it safe for children to reach in and splash in the water? If so, consider adding stepping stones up to the feature. (Always consider safety and follow necessary precautions when adding a water feature to the landscape.)



Maintenance: Incorporating a water feature into the landscape will have limited benefits to well-being if it requires intense maintenance. Enter into this project with the understanding of the required maintenance and choose a feature that fits into your constraints. If this is your first time installing and maintaining a water feature, start small as you learn the basics. Don't allow this therapeutic feature to become a stress-inducer!

Do you have a water feature in your garden? We would love to see it! Send a photo to Cynthia at cdom@ksu.edu.

VEGETABLES

Determinate vs. Indeterminate Tomatoes: What's the Difference?



The most popular vegetable for home gardeners in Kansas confuses many gardeners when deciding what type to grow. New varieties are always being developed in an effort to create the perfect tomato.

Choosing a variety with strong disease resistance characteristics is a good start. Other considerations are timing of maturity and yield. Fruiting slows down during the peak of our summer heat.

If that coincides with peak fruiting dates, you may be disappointed with the harvest. Some varieties produce more fruit than others. If you have a plan to use a large amount of tomatoes then choose a variety that will meet your need.

Determinate Tomatoes: Sometimes known as “bush” or “compact”, these plants typically stay below three feet tall. The fruiting period is more concentrated which is beneficial for gardeners who plan to do canning. Determinate tomato plants are better suited for container gardening.

Indeterminate Tomatoes: These varieties grow very large, over five feet, with vine-like growth. It will be necessary to stake the plants to keep them off the ground. The fruit will ripen throughout the growing season with smaller harvests at a single time.

School Garden Note: Indeterminate varieties are a better option for school gardens due to the timing of the harvest. Additionally, determinate varieties are at a greater risk of succumbing to pests/diseases during the summer when there are typically fewer people available to maintain the garden. Indeterminate varieties continue sending out new growth making them more likely to recover from this type of damage. Cherry tomatoes produce a large yield of bite-sized fruit making them appealing for this audience as well.

DISEASES/PESTS

Fungus Gnats on Houseplants



Have you noticed tiny insects flying around your home or office? Fungus gnats are common household pests and though they don't bite, they are quite annoying. This time of year, we get questions about controlling the population of fungus gnats in the home. Here are some ways to keep them in check.

Fungus gnats prefer warm, moist environments. Remember, only water houseplants as needed rather than on a regular schedule to avoid oversaturating plants and creating a fungus gnat haven. Determine if the plants need water by inserting your index finger into the soil about one-inch. If the soil is dry it's time to water. During winter plants tend to use much less water so you can expect to be watering less frequently than during the summer. Dump water out of the saucer once it drains so plants are not in standing water.

If fungus gnats are already present in your plants, allow the soil to dry at least through the upper three-inches. You may even consider repotting the plant in fresh soilless media. Remove as much soil as possible from the plant roots to eradicate the eggs and larvae of the gnats.

MISCELLANEOUS

Using Cold Frames and Hotbeds



Cold frames and hotbeds are season extenders gardeners use to get the most out of the growing season.

Cold frames tend to include a wooden frame or box with a lid that can be raised and lowered. They use no artificial heat source so the temperature inside the structure is typically only 5 to 10 degrees warmer than the outside temperature.

The cover for a cold frame should be transparent and can be made from an old storm window, polycarbonate or polyethylene film. The size depends on the intended use of the frame. It can be placed over a raised bed or directly on the ground to protect early plantings of cool season crops such as spinach. They can also be used to harden off transplants before planting in the ground or to protect tender perennials during winter.

A hotbed is a cold frame with a heat source. It could be an electric heater or even a natural heat source such as manure. Hot beds can be considered miniature greenhouses and are used to get a jump on warm season vegetables.

On sunny days, cold frames and hotbeds can heat up quickly. It is important to be able to vent these structures so plants do not get overheated. Storm windows can be attached with hinges so they can be propped open on sunny days to allow heat to escape.

When extreme cold temperatures are predicted, the season extenders can be insulated with additional layers such as straw or blankets over the top of the structure.

Position cold frames and hotbeds facing south to get the maximum winter sun exposure. Make sure there is good drainage so moisture is not trapped inside. If possible, position the structure close to the house for ease of monitoring and maintenance. For hotbeds with electric heating consider where the power source is and locate the structure in that vicinity.

QUESTION of the WEEK



“Should I dump the soil that I used last year in my raised beds and replace it with new soil or can I use it for my crops again this year?”

The short answer: Reuse that soil! This will save you money, time and physical effort. However, recognize your soil will likely need some attention for your plants to thrive. You can do a soil test to determine what nutrients are needed. You should also incorporate organic matter to improve the porosity and fertility. Additional garden soil may be added to bring the height up for raised beds where compaction has occurred.



The long answer: There are several things to consider to answer this question. Initially I'm wondering what type of raised beds these are. Raised beds could be containerized structures made of wood or bricks with soil brought in from an outside source. They could also be shaped using just garden soil that is mounded higher than the rest of the landscape. These types of raised beds are more likely to suffer compaction from foot traffic than those elevated higher off the ground with a physical frame.

Once I know this I want to know, “How did the plants in the raised beds perform last year? Were there any signs of disease or pests?” Many diseases and pests can overwinter in the soil and will multiply the problem this year if not treated properly. This is one reason crop rotation is important even in raised beds. Avoid planting crops from the same plant family in the same raised beds year after year. Crop rotation helps build soil health and reduce challenges with diseases and pests.

If there was a disease/pest infestation last year in a small, containerized raised bed and crop rotation is not an option, I would consider replacing the soil with a sterilized mix to avoid fighting the problem again this year.

Nutrients are leached out of the soil during irrigation and precipitation events. Soil compaction is also a concern after a year of gardening and potentially foot traffic. Incorporate organic matter into the existing soil in raised beds each year to improve the overall soil health.

COMING UP NEXT WEEK...

Community Garden Corner

This monthly feature will support our Kansas community gardeners. Whether you're the one managing the program or the gardener managing just your own plot, we are here to help. Look for this content the second Monday of every month.

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For questions or further information, contact: cdom@ksu.edu OR cdipman@ksu.edu
This newsletter is also available online at:
<http://hnr.k-state.edu/extension/info-center/newsletters/index.html>

The web version includes color images that illustrate subjects discussed. To subscribe to this newsletter electronically, send an e-mail message to cdom@ksu.edu or cdipman@ksu.edu listing your e-mail address in the message.

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