

Training Offered For Garden Educators

BROOKINGS — How's your garden growing? SDSU Extension is offering a series of Webinars for garden educators.

School teachers, afterschool and summer garden program leaders and helpers are all encouraged to participate in the Youth in the Garden webinars.

Webinars are typically scheduled for the second Wednesday of the month, however the next session will be held July 17 from 10-10:30 a.m. CDT.

To participate in the webinar, visit [www.iGrow.org/events](http://www.iGrow.org/events) and click the link within the event posting. Participants are encouraged to log in within 15 minutes of the specified time.

Chris Zdorovtsov, SDSU Extension Community Development Field Specialist will present ideas for incorporating history, geography and culture with "Social Studies in the Garden." Marjorie Zastrow, Nutrition Field Specialist will provide tips and ideas to provide children with healthy choices and ideas to involve them in food preparation activities during "Kids Food: Balancing Choices."

Save the date for this upcoming session:

- Aug 14, 10 to 10:30 a.m. CDT — "Food Safety in the Garden," presented by Lavonne Meyer, Food Safety Field Specialist and "Science in the Garden," presented by Chris Zdorovtsov.
- Sept 11, 10-10:30a.m. CDT — "Pick of the Harvest," presented by Marjorie Zastrow and "Physical Activity in the Garden," presented by Nikki Van Dyke, Health and Physical Activity Field Specialist.

If you would like to receive more information on trainings and funding opportunities related to garden-based learning programs or to exchanging questions and ideas with others involved in similar projects, e-mail Chris Zdorovtsov at [Christina.Zdorovtsov@sdsstate.edu](mailto:Christina.Zdorovtsov@sdsstate.edu) to be added to the SDSU Youth Gardening LISTSERV.

Master Gardener News: Native Plants

BY COLETTE KESSLER  
USDA Natural Resources Conservation Service

When planning your next landscape project, consider using native species. Native plants tend to grow better than introduced species because they have evolved under local growing conditions. Native plants are less prone to disease and, once established, require less watering and fertilizer than non-native species. There are trees, shrubs, grasses, and wildflowers to choose from. There is a mirage of wildflowers blooming right now. Native plants come in a vast array of colors — blooming and adding interest to your landscape throughout the year.

If you want a formal looking yard, group similar plants and colors together, with spacing wide enough to allow plant distinction. If you prefer a more natural look, scatter a variety of plants at random. Then, allow the plants to grow into each other, providing a free flowing form. Whatever your design, the soft pastels of delicate wildflowers are a welcome sign of spring. In winter, tall grasses and silhouettes of leafless shrubs add a texture to the landscape that a mowed lawn will never offer.

Be aware that many localities have laws or ordinances against digging up native plants for transplanting. Native species should be obtained from reputable nurseries and garden centers that offer a selection most states have a native plant society and contacts can be found on the Internet.

Flowering plants you may want to watch for and incorporate in your yard are yarrow, leadplant, columbine, coreopsis, coneflower, blanket flower, dotted gayfeather, beebalm, black eyed susan, spiderwart and many more. Now would be a good time to take a prairie walk and see what is out there. I found native plants performed very well in last year's drought. Natural Resource Conservation Service has a great booklet on Living Landscapes in South Dakota, and can be found at most local offices or contact me at [adrians@gwct.net](mailto:adrians@gwct.net).

*Kessler is a public affairs specialist with the USDA Natural Resources Conservation Service in Pierre.*

Tips For Growing Peonies This Summer

BROOKINGS — Peonies or Paeonia are one of the most common flowers growing in many South Dakotan's gardens, and for good reason, said David Graper, Extension Horticulture Specialist and Director of McCrory Gardens.

"There are few plants that are as durable, easy to grow and long-lived as a peony. In fact, peonies often out-live their planters," Graper said.

Peonies are prized for their large, showy and fragrant flowers which come in a wide variety of colors including pure white, pinks, reds, purples, burgundy, peach and multi-colored types. The flower form may be classified as single, Japanese, anemone, semi-double, double or bomb. Peony flowers may range from about 3-8 inches wide depending on the species and cultivar. Flowering time varies from early June to early July.

Graper said peonies grow best in a site that receives full sun exposure but many will still grow well and flower with partial shade. They prefer a well-drained soil but they will tolerate clay soils too. Peonies are available in the spring, usually as potted plants in garden centers or as bare root plants in the fall.

"September to early October is considered the best time of year for planting and dividing existing plants. Keep in mind that if you are tackling an old, well established plant that the roots can be quite large, 2-4 inches in diameter and up to 12 inches long. You will need a heavy spade or shovel to dig one up, but be careful to not damage the roots. They may be large but tend to be quite brittle," he said.

Graper encouraged gardeners when transplanting peonies to try taking out a section, like a piece of pie, from a large plant so that you will have less chance of causing major damage to the original plant.

"Each division should have several buds or eyes, which will be quite evident in the fall of the year, usually found 1-2 inches below the soil surface. These buds should be positioned at about the same depth in their new location when planted. Cut off the stems about 6 inches above the soil line to make it easier to handle and to reduce water stress on the division after planting. New foliage will develop next spring from the buds on each division," Graper said.

Most gardeners in this area are used to the herbaceous peonies which originated from the Chinese Peony Paeonia lactiflora and the common peony P. officinalis. Graper said there are hundreds of different cultivars available that were developed from these original two species. Some gardeners may have also discovered the woody or "tree peonies."

"These were mostly derived from P. suffruticosa. These plants offer the largest flowers and a new range of colors that include yellows and other flower colors. However, tree peonies are generally not as hardy so will need to be planted in a protected site or mulched over the winter," he said. "Unlike the herbaceous types, these plants actually develop woody stems that should persist and continue to grow from year one to the next, allowing the plant to get larger each year."

**SUPPORTING PEONIES:** One of the biggest issues with growing peonies Graper explained is that the flower heads become quite heavy as the flowers develop and without support the plants tend to droop.

"Unfortunately what usually happens is that just when the flowers are at their prettiest, they get knocked down by a storm. The stems often fall over from the weight of a large flower soaked by rain and blown by winds," he said.

If this happens to you, Graper said gardeners should consider placing some support for the flower stems in place in the spring, just as the new shoots are beginning to grow.

"The most effective method is to use a piece of woven wire or even a piece of cattle panel, suspended about a foot above the ground by surrounding stakes. You can also purchase round mesh supports from garden centers and online outlets," he said. "Trying to tie them up, after they have fallen, usually doesn't work very well so these stems often end up in a vase on the kitchen table which will add color and a wonderful aroma to your home."

Some gardeners might be surprised at the cost of a peony plant, especially for some types like the fern-leaf peony which can cost \$20 to \$50 for a single plant. But remember that a peony is an investment in your garden that will pay dividends for many years to come.

Diggin' In

A Delight For The Eyes

Use Feeders To Attract Lively Hummingbirds

BY KATHY VAN MULLEKOM  
© 2013, Daily Press (Newport News, Va.)

NEWPORT NEWS, Va. — A cool, wet spring in many parts of the country delayed the arrival of hummingbirds, but you can be sure they are now somewhere in your garden, especially if you have a smorgasbord of colorful flowers.

Hummingbirds, aka "hummers," dart, dive and delight you with their fast-flying, acrobatic-like maneuvers as they search for nectar among flowers. They also like feeders filled with plain sugar water.

"I keep two hummingbird feeders in my yard, and have had luck attracting them with several plants: bee balm, salvia, fuchsia and nicotiana," says Marilyn Adair, a gardener in Yorktown, Va.

"I've also had hummers come to pentas on my deck."

Along the East Coast, you'll find only one hummingbird species, a migrant known as the ruby-throated hummer, according to Tim Boucher, a geographer with the Nature Conservancy. Meet and read about Tim's birding explorations in the Nature Conservancy's magazine.

"The ruby-throated hummingbird migrates from Central America in April, breeds in the East, and leaves in the fall to go back to the tropics.

"As you go south, you get more species — in Arizona for instance, you get up to 18 species — some resident, some migratory.

"In the tropics of South America, there are hundreds of species of hummingbirds, and you can see over 25 species at a single feeder in the Andes of Ecuador."

Ruby-throated hummers and others among their species weigh less than a nickel, and can fit in the palm of your hand, according to Susan Summers, education associate at the Virginia Living Museum in Newport News.

They can fly at speeds up to 29 miles per hour, and their body structure allows them to fly forward, backward and to hover.

"They have even been observed to throw a somersault every now and then," Susan says.

Known to be long-distance migrants, they fly 18 to 22 hours, especially when crossing the Gulf of Mexico. To prepare for the journey, they feast on insects and spiders; along the way, nectar gives them quick and easy fuel.

Often, their migration is timed to coincide with flowering plants along their routes; their favorites include native species with red or orange tubular blooms. You can also hang mesh bags of fruits or banana peels to attract fruit flies, another favorite food source of hummers. They also like a source of fresh water, such as a birdbath for sipping and bathing.



PHOTO: COLE'S WILD BIRD FEED/MCT  
An easy-clean, saucer-style hummingbird feeder by Cole's Wild Bird Feed offers several ports for communal dining.

Once they arrive at their destination, they get busy starting a family. Females make nests out of leafy materials woven together with spider silk and decorated with lichens, according to Susan. The female lays two bean-size eggs, and raises the hatchlings herself from newborns to young adults within three weeks.

This year, the hummingbird is the focus of the National Wildlife Federation, which encourages residents living in any kind of housing — single-family home, apartment, condo or townhouse — to hang up a hummingbird feeder somewhere outdoors. Setting a pot of colorful flowers next to it also helps entice these beautiful creatures to your space, especially if you don't have a garden.

"No, not only red flowers attract hummers," says Tim.

"Blue flowers such as salvia, lungwort and agapanthus do a great job of attracting hummers. Remember, you want to plant a diversity of flowers in your garden — including flowers that bloom at different times of the year — from spring to late fall to provide sustenance for the little gems. Include flowers such as columbines, bee balm, phlox, foxglove, fuchsia, honeysuckle, trumpet creepers and goldenrod."

To keep hummingbirds coming to your feeder, follow these sugar water feeder tips, courtesy the National Wildlife Federation:

- Dissolve one part white sugar in four parts hot water.
- Boil the water if you plan to store the nectar in the refrigerator.
- Never use honey, which ferments easily, or artificial sweeteners, which have no food value for birds. Red food coloring is not recommended because it may be harmful to birds.

—Let the solution cool to room temperature before putting it in your feeder. You can store homemade nectar for up to a week in the refrigerator.

—Once you fill your feeder, don't forget to empty, rinse and refill your feeder every two to three days (especially in warm weather) to prevent spoiling. This ensures that hummingbirds won't become sick from drinking bad nectar.

In addition to nectar, hummers also eat insects for protein and minerals, according to Tim. They eat all sorts of insects — mosquitoes, aphids, gnats and caterpillars — even spiders.

"Watch them carefully, and you can see them hawking for flying insects — they are very good at catching them in flight," he says.

"People are fascinated with hummers because they are such terrific little fliers. Not only can they hover when feeding, but they are also the only species that can fly backward."

For more information and tips on gardening for wildlife and certifying your yard as a Wildlife Habitat, with the National Wildlife Federation. The habitat program includes a subscription to the e-newsletter Wildlife Online, a year's membership and subscription to National Wildlife magazine, as well as a 10 percent discount on wildlife federation catalog merchandise.

What Is Bugging Your Garden? Cucumber Beetles

BROOKINGS — Gardening has been a challenge the last few years what with the record rainfall two years ago, record drought last year and now a wet, cool and late spring - and now, insects are making an appearance.

"The veggies in my garden are finally starting to grow now that it has warmed up and dried out, at least for a few days," said David Graper, Extension Horticulture Specialist and Director of McCrory Gardens. "If this spring's weather wasn't enough, now the insects are making their own appearance."

Based on what he's seeing in his own garden, Graper says the worst insect pest he has seen recently are stripped cucumber beetles.

"These little voracious eaters must have been waiting for my squash, pumpkins and melons to emerge from the soil because they have done a lot of damage in a short time," he said.

The little yellow and black striped beetles are fairly small, only about a half-inch long, but what they lack in size, Graper says they make up for in numbers and appetite.

"My poor little seedlings were hardly out of the soil and just beginning to get their first true leaf when they attacked. Some of the seedlings are completely gone while others are mere skeletons of their former self. But, eating the seedlings is just the beginning," he said.

Graper adds that cucumber beetles are also the carriers of bacterial wilt, a common disease of cucurbits. The bacteria are in the beetles and get transferred to the plants when they feed on them. So, even if you get rid of the beetles, which, he

says is no small feat, bacterial wilt can show up just about the time the plants begin flowering and fruiting later in the summer. Bacterial wilt causes the vascular tissue to get plugged up with the bacteria which shuts down water transport to the plants so that the whole plant can wilt in a few days.

"There is no treatment for the disease, once the plants get it so it is a good idea to try to control the beetles to prevent them from spreading the disease," Graper said.

He explains that there are usually two generations of cucumber beetles in our area.

"Right now the first generation of beetles is out feeding on the young plants. These beetles overwintered in the soil and have now emerged to eat and make new baby beetles. They lay their eggs in the soil near cucurbit plants so that when the next generation emerges in mid to late summer they will have a ready food source," he said.

The second generation will feed on the then larger plants and even on the fruit, particularly in the fall after a frost has taken out the foliage. The fruit damage can mean that the fruit will not store well because the feeding damage will allow for

bacterial and fungal pathogens to enter the fruit.

**TIPS TO CONTROLLING CUCUMBER BEETLES**

Graper shares a few tips to try in combatting these nasty little pests.

First, clean harvest and clean up debris in the fall of the year.

"If you can do some deep cultivation that will also help the under-ground plant debris to break down and not act as a food source for the larvae," he said. "This will reduce the number of beetles that survive and overwinter in your garden."

Secondly, delay planting so that the first generation either starves or moves on to other plants before your seedlings emerge. Apply mulch after planting to cover the soil and make it more difficult for the adults to lay the eggs on the soil surface.

Graper says floating row covers can also help to keep the beetles away from your young plants. But, you need to be careful that you don't trap the emerging beetles inside with your plants. You also have to be prepared for wind which can make a mess of

your floating row covers and consequently your plants.

"Some people will put out yellow sticky trap cards on wooden stakes, a few inches above the ground," he said. "The beetles are attracted to the yellow color and get stuck on the cards."

If you do a search on the internet you will likely find a variety of other home-made remedies that you could try."

Graper says that insecticides can also be used.

"The standard would be Seven dust, but like potato beetles, these pesky pests have likely developed resistance to this old standby," he said.

While a dust formulation can work well, Graper says the ideal treatment will be one that you can get on both the upper and lower leaf surfaces.

"Cucumber beetles are pretty active little guys that will hide under the leaves or in the soil if disturbed. Liquid treatments with insecticides like Imidicliprid, Permethrin and Pyrethrin might work but the adults are rather difficult to kill. Whichever insecticide you decide to try, do your best to get thorough coverage of the plants," he said.

To learn more, visit

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MORNING COFFEE

WEEKDAYS MONDAY-FRIDAY

Friday, July 12

7:40 am Stud A Thon (Various)

8:20 am Stud A Thon (Various)