

Backyard Biodiversity Project Looking For Volunteers

BROOKINGS — SDSU Extension wants to know what insects are in your backyard. On June 26 at 10 a.m. CDT, Amanda Bachmann, SDSU Extension Consumer Horticulture Field Specialist will present a webinar introducing her project on backyard biodiversity in South Dakota.

There will also be evening in-person workshops in Pierre, Brookings, and Rapid City presented by Bachmann, and two other SDSU Extension Specialists; Buyung Hadi, SDSU Extension Pesticide Applicator Training and Urban Entomology Specialist and Mary Roduner, SDSU Extension Consumer Horticulture Field Specialist. The workshop in Rapid City will be at the West River Ag Center on July 18 from 7-9 p.m. MT. The Pierre workshop will be July 15 from 7-9 p.m. CT at the Pierre Regional Extension Center. The Brookings workshop details will be announced shortly.

This citizen science project is looking for volunteers around South Dakota who are interested in learning how to observe and record insect sightings in their backyard. For 2013, the project will focus on identifying what pollinators are present in mid-July to mid-August. The webinar will teach participants how to identify major groups of pollinators and go through the simple data collection and reporting process.

This project will utilize Project Noah (projectnoah.org). Bachmann has already created a mission for backyard biodiversity in South Dakota.

Interested individuals are encouraged to create a free account on the website, and there will also be a pen-and-paper option for data collection.

Bachmann is working with Buyung Hadi to locate participants who would be willing to have passive insect collection systems installed in their yards during early August. This type of insect collecting will give them a better idea of the insect diversity in South Dakota backyards.

Collecting data for the project will take about 20 minutes once or twice a week for four weeks. Bachmann will present webinars and workshops throughout the summer and the 2013 results will be published on iGrow in the fall.

Individuals who are interested in participating can contact Amanda Bachmann at Amanda.bachmann@sdsstate.edu and go to iGrow.org/events for the webinar link.

Soil Treatment Discussion Set For June 27 In Vermillion

VERMILLION — A discussion on "Ancient Soils and Modern Science: How Not To Treat Your Soil Like Dirt" with Dean Spader will be held at 7 p.m. Thursday, June 27, at the Edith B. Siegrist Vermillion Public Library's Community Room. The library is located at 18 Church Street.

Numerous scientific disciplines using electron microscopy are discovering why "many modern agricultural and urban landscapes mean dead dirt." The questions then arise: What is killing our soil? Why is dead soil so compacted with hardpan, and why does it erode so easily? Why are certain weeds and pests taking over? If we want to reverse these trends, how do we restore life to our dead soil? The same science is beginning to provide answers to these questions. This presentation will offer two forms of soil management and suggests that one is better for our lawn, garden, and farm soils. Use of this method also produces nutritious, healthy, and delicious food for our consumption.

For more information on this free event, contact Patti Roberts-Pizzuto at (605) 677-7060 or pizzuto@sdl.net, or visit www.vermillion-publiclibrary.org/.

Native Perennial Is Important Food Source for Butterflies

BROOKINGS — Native perennials are an excellent garden addition. Perennials are convenient because they come back year after year without replanting, says Amanda Bachmann, SDSU Extension Consumer Horticulture Field Specialist.

One perennial that may already be blooming is the red columbine or *Aquilegia canadensis*. It is a perennial native to South Dakota that blooms early May and Bachmann says the plant is important to nectar-feeding insects like butterflies.

"These plants are visited by insects with long mouthparts, like butterflies and some moths (hawk moths in particular) as well as hummingbirds," Bachmann said. "They are important food sources for butterflies, moths, and hummingbirds."

Also known as wild columbine, this plant has striking red flowers that droop from the ends of tall stalks. The 2-inch long flowers are comprised of five backwards-pointing fused tubes with yellow stamens. The plant reaches 1 to 3 feet in height. Red columbine begins blooming in late May and continuing through July.

If you happen to have red columbine in your flower beds, Bachmann says that once the seeds form they can be trimmed back.

"In addition to the blooms, this columbine also has interesting lobed compound leaves that are green to blue green in color. These leaves are evergreen as long as the temperature remains between -10 and 110 degrees Fahrenheit," Bachmann said.

When planting red columbine, Bachmann encourages gardeners to choose a shaded area with soil that drains well but is not too rich.

"Too much water and poor drainage encourages just the vegetative growth and can shorten the life of the plant. Columbine is generally found in more wooded areas, and its growth will be stunted if planted in full sun," she said.

Red columbine is a perennial and will come back from its roots, but it will also self-seed.

"Propagation by seed is the easiest way to spread or pass along this plant, as the roots are very difficult to successfully divide. Like many perennials, red columbine seeds need some exposure to cold in order to germinate properly. They can be planted in the fall or in very early spring before temperatures increase," Bachmann said.

To learn more about perennials, visit iGrow.org where Bachmann will post a weekly series of articles on perennials native to South Dakota. Be sure to read the previous articles to learn about Penstemon and phloxes.

Instead Of A Lawn ...



PHOTO: BRENDA K. JOHNSON

Lattice is installed below the roof of the deck pergola. Overlooking the back yard, the pergola blocks west-facing sun and is a visual screen for apartments in the distance. Lattice also blocks wind for the hanging baskets.

... Try Some Of These Backyard Alternatives

BY BRENDA K JOHNSON
P&D Correspondent

A meandering grassy path through the honeysuckle arbor is all that's left of lawn in the front, side and back yards of their newer subdivision lot in Yankton. Instead, Lisa, Chad, son Cade (age sixteen), and daughter Katrine Newland (age eleven) have installed a cottage garden, a water interest with bridge and seating, and a fairy prairie backyard with a second story pergola/deck to view the kingdom. Their yard is featured as one of six stops on the public yard and garden tour sponsored by Master Gardeners Saturday June 29th.

Lisa Newland commutes to Vermillion where she is a professor of Human Development in the School of Education at the University of South Dakota. "When we signed the papers to move here in 2005, before we moved any furniture in, we moved in plants," Newland said. Lisa is a member of Missouri Valley Master Gardeners and Yankton Town & Country Garden Club.

According to Newland, her pie slice front yard had a tree, lawn, spirea shrubs, and lots of rock mulch around the house foundation. "My husband and kids moved rock to the backyard for three years," she said. "For Mother's Day."

COTTAGE GARDEN THEME

They began landscape changes but last year they committed to a cottage garden instead of lawn for the front yard. "My husband dug up grass with a spade. We composted the grass and roots in the back yard. We added old cow manure and peat moss (where lawn had been) and Chad tilled the yard."

After one year, lush perennial beds fill either side of the turf walkway. Green path blends with foliage giving the flowers the color focus. With no fertilizer applied to flowerbeds this spring, robust full sun plants thrive in the east-facing yard.

"Cottage garden fits well with my philosophy of gardening—Survival of the Fittest," she said. "Winding paths and beds not neatly manicured. You put the plant in, say a prayer, water it well the first year to get established, and then the plant's on its own. Then routinely I'll water once a week or so."

"A full look cuts down on weeding," she said. "I planted, waited for seeds to germinate, Preened (with pre-emergent herbicide), and then mulched." Larkspur, delphinium, and columbine re-seed. Penstemon, dianthus and hollyhock fill in gaps. Purple bellflower is quite showy. Coreopsis will bloom soon. I dig up new plants to transplant."

Economy-minded, Newland buys close-out plants. She has many plants from gardening friends. Given the many sources of plants, her cottage garden looks well defined. "I put tall in the back and short in the front so you see all the flowers. I still have to move plants that grow taller than ex-



PHOTO: BRENDA K. JOHNSON

Honeysuckle vine on wrought iron arbor welcomes visitors to Lisa Newland's cottage garden yard. Cottage garden plants are lush and informally arranged along the meandering pathway by color, size, and texture. Some re-seed and grow there and some are transplanted to the back yard.

pected for the site."

Beds have an orderly appearance. "I garden by color. That's the purple section, there the yellow-red-orange section, and there is the pink section." She points and we smell the Knockout roses. Transplants not needed, go to a mixed color area or the back yard.

"To bring order out of chaos, I put in collections of garden objects." Gnome sentries guard the purple section of the garden, angels rest in the pink section, and cat figures stalking birds mind the mixed color section. "Trolls are under the bridge," she said.

Garden tour visitors will see plants that thrive in Newland's garden. Cosmos is one of several plants that re-seed. "That's one of the ideas of a cottage garden, to let a plant re-seed if it wants to grow there."

That leads to her other tip. "The garden plan always changes, according to the plant. They're more likely to grow if you listen to what plants tell you."

They installed a low wrought iron fence around the cottage garden. From out on the sidewalk and from within, the garden feels open and welcoming. "Part of the purpose of this garden is to share the enjoyment," she said. "I tried for a bit of visual screen."

"Our neighbor was spraying dandelions a couple of weeks ago. He said he didn't want to spray glyphosate weed killer because of our flowers. He found an organic mixture online. That was so nice of him to be aware of the drift."

Their South-facing side yard is close to the lot line and hard to keep watered. Ground-hugging succulents carpet the flowerbed. Low height to the bed gives a more roomy appearance, with a few plants for height. A paver walkway in the side yard ties the cottage garden to the back yard via

Lawn And Garden Tour

Saturday June 29th

Sponsor: Missouri Valley Master Gardeners

Self-guided tour includes Newlands' cottage garden and five other city and country Yankton area flower and vegetable gardens with ponds, hardscape, and high tunnel.

Register and start tour at 321 Lewis & Clark Trail between 9:00AM and 11:00AM.

Proceed on Highway 52 West of Yankton to Lewis & Clark Recreation Area entrance sign and turn RIGHT (North) on Lewis & Clark Trail.

Cost: \$10.00 includes light lunch at last stop.

Proceeds support Yankton master gardener projects.

Contact: Shann Doerr at 605.660.7439

a bridge over a water interest.

BRIDGE OVER PLEASANT WATER

"From Minnesota, we wanted our little piece of Minnesota happiness." She refers to the pond with sound of water over rocks that contain "sacrificial fish." "If they live, we'll get more," she said.

Chad designed and built the wooden bridge with seating. Near the pond is a dock he built where Katrine and a friend can put their toes in the water. "We found lots of sunflower sprouts by the water this spring," Newland said.

Katrine has painted two wooden interior doors supplied by her grandmother as yard artwork. One door is a colorful mosaic with glass beads for the back yard "fairy prairie" theme and the other door shows a "water garden" theme for the pond area. Backside of the doors, she painted in "urban art" for the neighbor, as the doors are positioned along their yard boundary.

FAIRY PRAIRIE BACK YARD

Their "fairy prairie" theme back yard renovation only started this spring. Last winter Newland spent three months with her broken ankle elevated and had time to plan. "On Pinterest.com website I pinned a board of the ideas to try in the back yard. One of them is to use bottles for edging a path. I collected bottles for years. Now I know what for." A natural tree limb arbor and swing is another Pinterest idea into action. Pinterest walk on pavers formed into daisy shapes are found throughout the yard.

Newlands wanted to replace the back yard lawn turf with mixed prairie flowers, areas for seating, shade, activity, and a salsa vegetable garden. "To get rid of the grass

we used a lasagna method," she said. "We layered cardboard (or at least three sheets thick of newspaper) over the grass. We put organic matter such as compost, grass clippings, or mulch over it." For extra stability they placed bricks to hold the cover in place.

"It holds down and kills the grass," Newland said. "It took about a month to work. I'd peek, and grass got yellow, then brown, and then dead."

They used Yankton Transfer Station compost, which is available to all, for the lasagna grass-killing method. "My husband got four pickup loads. While it is possible it has chemicals or weed seeds, we didn't use it on the vegetable garden. It's free, it's fine quality and easy to work with. I helped with a load and had muddy tears (from a windy day).

A campfire circle with seating and logs for end tables is centered in the back yard. With the circle as a sun, rays or walkways radiate out from the circle to other parts of the yard. Newlands have enjoyed the fire pit. "We made hobo dinners the other night," she said.

We see fairy garden displays on the ground or in containers along the pathways in the back yard. Katrine had created a fairy miniature campsite. As seeds germinate and transplants begin to grow in the back yard, foliage will help define areas more clearly in this new space.

Plants requiring a little extra moisture are planted in containers for hand watering in the back yard. These include dahlias planted in a washbasin. "They're easier to dig up in the fall this way," Newland said.

The pergola that Chad built provides shade over their deck in the back yard. "Before we never ate on the deck or used it because of the west-facing sun," she said. A border of lattice at the roof of the pergola helps block the angled sun and screens the view of distant apartment buildings. Instead the view is the green beyond the yard.

"We look out here and I tell my husband, you are the king and I am the queen. Too bad we don't have minions working in the fields."

When she was a child, Newland saw her parents like vegetable gardening. "My mom had perennials. Part of my interest came from her. "I didn't start gardening until I was in graduate school in Utah. Conditions were different there. I had rose buses and a partially shaded vegetable garden. You needed shade. When we moved here, now gardening's good stress relief. I've been gardening vigorously the last two or three years. My mom has beautiful pots and houseplants in Northern Minnesota. These Swedish ivy hanging baskets (in the pergola) came from cuttings from her.

All are invited to meet Lisa Newland who will be hosting her yard, assisted by other Master Gardeners, on the garden tour Saturday June 29th.



PHOTO: BRENDA K. JOHNSON

Pam Kallis, Park Naturalist at Lewis & Clark Recreation Area, has waited for milkweed pictured here to grow this spring. Kallis will lead a group to see butterfly habitat and release Monarch caterpillars. More about Monarch butterflies: www.monarch.org

Monarch Caterpillar Release Is Sat.

BY BRENDA K JOHNSON
P&D Correspondent

Butterfly habitat project at Lewis & Clark Recreation Area is ready for the next step. Monarch caterpillars will be released Saturday, June 22nd at 9:00AM.

"We will take a short walk from the Lewis & Clark Welcome Center to look at native grass plantings, wildflower plantings, and then end at the butterfly habitat," said Pam Kallis, Park Naturalist. Participants will learn that caterpillars feed on milkweed in the larvae stage. Adult Monarchs are protected in the native grasses and get pollen from wildflowers.

"We will be placing a dozen caterpillars on the milkweeds that are growing in the wetland area near the Lewis & Clark Amphitheatre," Kallis said. Public is welcome to respectfully observe the Monarch caterpillars at this site.

Butterfly habitat project is a col-

laborative agency project to create areas at Lewis & Clark Recreation Area for butterfly habitat such as Monarchs near the bike and walking trails for visitor enjoyment. Eight sites around the park were seeded last fall with native grasses and wildflowers and plants of special feeding interest to Monarch caterpillars. Article about the project "L&C Recreation Area — A Habitat

For All" appeared in the *Press & Dakotan* May 3.

All ages are welcome to walk with Kallis, learn about monarchs and see the caterpillars on milkweed. The event will be about an hour in length, according to Kallis, and will be held rain or shine, but cancelled if lightning. For more information ask for Pam Kallis at Lewis & Clark Recreation Area Welcome Center (605) 668.2985.



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