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We want to hear from you!

Send your submissions for
the newsletter to

ymastergardener@gmail.com
by Dec. 15th for the next issue.

Yellowstone Master Gardener



NEWSLETTER

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Corinna's Love of Gardening and the Moss Mansion: "Being In It"

by Bess Lovec

Choosing which is more important to Corinna Sinclair is tough to determine – her new position at the Moss Mansion or gardening. She's a lucky one because the two intersect. She manages the Conservatory at the Moss, where geraniums bloom enthusiastically in the winter but go almost dormant in late August, alongside lush, exotic plants, like a Madagascar jasmine. I recently met her in person there. She exudes so much exuberance! We have worked together for years, editing this newsletter, so my viewpoint of this self-described farm kid demonstrates a total bias.

Her first memories of gardening are indeed her first memories. "I was born in the garden. My grandparents, whom I grew up with, gardened. Parents and grandparents were farmers. Both grandmothers and my mom taught me the most about gardening." In fact, Corinna recently changed her watering patterns to return to the ways of her grandmothers, placing a hose on low flow three times a week, although potted plants still need daily watering.

Corinna took shop instead of home economics when in public school in Big



Corinna Sinclair

Sandy, Montana. She built a greenhouse for a high school project that she ran with her mom for 22 years. They utilized 55 gallon black barrel drums for heat. In the past few seasons here in Billings, grapes are her greatest joy, producing past expectations. She's even making grape jelly. Her backyard, replete with raised beds built during Covid, is her haven.

The arborvitae prove ideal for privacy in town, even as they often have to recover from winter burn. Since recently becoming full-time Director of Operations at the Moss Mansion, she needs time outdoors to replenish. Having worked there for nine years, her new upcoming tasks include grant writing.

Her advice for new gardeners: "don't be scared." Experimenting is the fun part. Additional recommendations include using Neem and/or dormant oil for unrelenting parasites and pests, if water spraying is not enough of a deterrent. She finally threw out asparagus and arrowhead vine following persistent destruction from mealy bugs. Corinna appreciates the resources, the new knowledge, and

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RECIPE submitted by Merita Murdock

Red Root Relish

from 'Ball Complete Book of Home Preserving', Copyright 2012

4 cups diced peeled cooked beets
(see Tip)
4 cups finely chopped red cabbage
3 cups white vinegar
1½ cups granulated sugar
1 cup finely chopped onions
1 cup finely chopped seeded red bell pepper
1 tbsp prepared horseradish
1 tbsp salt

Makes about four pint jars



Prepare canner, jars, and lids.

In large stainless-steel saucepan, combine beets, cabbage, vinegar, sugar, onions, red pepper, horseradish, and salt. Bring to a boil over medium high heat, stirring occasionally. Reduce heat and boil

gently, stirring occasionally, until vegetables are tender and heated through, about 20 minutes.

Laden hot relish into hot jars, leaving ½ inch headspace.

Remove air bubbles and adjust headspace, if necessary, by adding hot relish. Wipe rim, center lid on jar. Screw band down until resistance is met, then increase to fingertip-tight.

Place jar in canner, ensuring they are completely covered with water. Bring to a boil and process for 15 minutes (Merita's note: I increase by 10 minutes for altitude = 25 min). Wait 5 minutes, then remove jars, cool and store.

Tip: To cook beets, scrub them thoroughly, leaving the root and 2 inch of the stem intact to prevent bleeding. Place in saucepan and cover with cold water. Bring to a boil, reduce heat to medium-low and boil gently until tender, about 35 minutes, depending on the size of the beet. Drain, discard liquid and rinse well under cold running water. The skins should slip off easily. Remove root and stems.

If you prefer a relish with a finer texture, shred the cooked beets rather than dicing them. Use 3½ cups light packed shredded beets.

Merita's note: I use a food processor for everything. I used Beaver Extra Hot Horseradish.

RECIPE by Bess Lovec

Caprese

This appetizer or light meal is simple, satisfying, and visually beautiful. Feel free to experiment.

Following ingredients are layered bottom to top. Sizes are approximate.

Crackers (preferably round, salty) or baguette slices about 1/4th inch thick
Quarter inch slice of fresh mozzarella cheese
Quarter inch slice of fresh homegrown tomato
Large, fresh basil leaf
Drizzle of either olive oil (my preference) or balsamic vinegar (sweeter)
Sprinkle of freshly ground black pepper



CORINNA'S LOVE OF GARDENING

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networking provided by the Master Gardeners' program. She thinks so highly of the program that her daughter has participated through the Extension office in Glasgow, Montana. Stop by the Moss Mansion soon to visit our partner in gardening, Corinna Sinclair, plus relish in the beauty of the Conservatory!

Madagascar jasmine in the Conservatory at the Moss Mansion



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Meet the New Yellowstone County Extension Horticulture Agent Heidi Schueler

by Sheri Fredericksen

Heidi was born in Seattle, Washington and moved to Huntley, Montana in 5th grade. Her parents are both from Eastern Montana, and growing up, spent their summers in Huntley.

Her early influences to gardening were her mother and grandparents. Heidi said from a young age she has always been an “outdoorsy” individual and prefers being outside. Additionally, while attending high school, she worked at several greenhouses.

Prior to continuing her education, after graduating from Huntley Project High School in 2016, Heidi enjoyed traveling both within the country and abroad. She worked for a woman who made beautiful quilts and traveled with her to conventions at various locations to help sell them. She also traveled to Greece where an aunt lives, as well as Israel for a family vacation.

Heidi began her college education at Sheridan College in Wyoming and earned her Associate Degree in Horticulture in 2020. She completed her education at the University of Wyoming in Laramie earning her bachelor's degree in 2022.

While attending college in Sheridan, Heidi worked at the University of Wyoming's Sheridan Research and Extension Center (ShREC) located outside the city limits. She grew quite interested in the Cornell University's research on cold-hardy French-American hybrid grapes. French-American hybrids are the offspring of crossing a wild American variety with a European variety and provide growers with more disease resistant grapes. She cared for



Heidi Schueler

a trial vineyard which included 400 vines and 40 cultivars. Heidi enjoyed the “grape culture” in Sheridan and made presentations to the community on her research.

Heidi said when the Yellowstone County Extension Horticulture Agent position opened, she felt that her previous job at the ShREC had, to a certain degree, prepared her for the position. She would appreciate hearing from the master gardeners on potential ideas and together, hopes to come up with solutions to help make them happen. She is very community oriented and feels it's important to get young individuals excited to learn about gardening.

Heidi's vision is to have master gardeners engage with other divisions of the Extension Office to cultivate increased learning opportunities across all of the disciplines.

Other roles and responsibilities that Heidi will be involved in as a full-time horticulture agent are agriculture and small acreage consultations. This may include information and education on implementing anything from a fruit farm to a backyard garden. She plans to make “house calls” within the county to help address common horticulture questions as they pertain to diseases, pest management, or plant identification.

Heidi's hobbies include hiking, backpacking and kayaking while always keeping up with the latest trends and research on cold-hardy wine grapes.



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Raised Bed Gardening... Still Using Up, Making Do... And Occasionally Buying

by Elizabeth Waddington

Going into the third summer of the pandemic, we are still trying to utilize the “stuff” around our home and yard to make improvements on our backyard garden. We did order another Big Yellow Bag of top soil to share among the three family households and since it was delivered elsewhere, that involved hauling tubs of it to our garden.

We managed to cobble together one more long raised bed box to put against the cyclone fence to tidy up the sprawling zucchini and summer squash. I thought I conquered the mess of weeds behind the fence early in the season but I guess that will have to be next year’s major project. All of our drip lines were reconfigured to creative swirls in the boxes so we use the overhead (on the fence) sprayers early in the season and switch over to the drip lines once the leaves limit water getting to the roots. No purchase necessary, my husband has a lifetime supply of drip “repair” components!

Brick semicircles were added to the ends of a few of the

long boxes to add interest and we used up a stack left over from our son’s masonry project. Only two high this year, I have enough bricks to add another two courses next spring.

After slogging around in the paths between boxes, it became apparent this spring that we really did need to address the mud. Not only was it messy to remove from shoes (and bare feet) but it was dangerously slippery when deploying the hail tarp during a storm. More sand and much more pea gravel were laid down to improve drainage. Bonus – fewer and easier weed pulling!

The garden projects have been satisfying as they are completed and most of them added to the ease of gardening for being able to continue a total “aging-in-place” mindset.



Billings Community Seed Library Education Updates

by Elizabeth Waddington

Monthly education presentations have continued this summer with varying attendance depending on the weather.

July 21st “Preserving Your Harvest” Elizabeth Waddington and the new Family and Consumer Science Extension Agent, Sara Fluer, had an information table at the Healthy by Design Gardener’s Market in South Park. There were MontGuides for freezing, drying and canning vegetables and fruit crops as well as “Does that grow here” and frost guides. Fresh herbs wilted quickly in the 95-degree heat and proved the point that you can’t keep things fresh for long. An old-school electric dehydrator and modern electric water bath equipment were displayed and their uses and alternatives were explained.



Above: Sara Fluer, Consumer Science Extension Agent; Right: Megan Poulette, Associate Professor of Environmental Science and Botany

August 20th “Seed Saving” Megan Poulette, Rocky Mountain College Associate Professor of Environmental Science and Botany, gave a talk at the Audubon Center about saving seeds from your garden. She started by passing out alstroemeria flowers and showing the anatomy of a flower. She explained the differences



between open pollinated, heirloom, and cross-pollinated hybrid plants. Next, she talked about saving seed from specific families of plants and the importance of isolating crops that will cross-pollinate. She demonstrated how to save tomato seed using a tomato from her garden

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Landscape Fabric: Useful or Useless for Gardens

You have seen it: new garden beds covered with landscape fabric and two inches of mulch; or large networks of weed roots intertwined just under the landscape fabric while tending a garden bed. Let's examine some common myths about using landscape/weed fabric in a garden.



Landscape fabric guising as weed barrier



Weed roots underneath landscape fabric

Myth 1: You don't have to weed your garden again

Landscape fabric can be a way to suppress the growth of weeds in the garden. However, it cannot completely stop weeds that are dispersed by air or dropped by birds and animals, or pernicious weeds that only need a small part of their root in the soil to sprout again.

Myth 2: Soil quality is not affected by landscape fabric

While some landscape fabrics are designed to ensure water, air and nutrients can still reach the soil but yet stop light to reduce weed growth, most landscape fabrics are not. This halts biological soil activity and drainage, making the soil hard and compacted, or wet and soggy. Additionally, proper decomposition of mulch or compost applied on top of the fabric cannot occur because there is no contact with the soil. Depleted of organic matter and nutrients, beneficial organisms leave, thus degrading the soil structure and quality.

Myth 3: Landscape fabric is optimal for permanent plantings

During planting, a hole must be cut in the fabric in order to put a plant into the soil. Some bulbs like tulips and daffodils may not grow upwards through the fabric. Moving, dividing and replacing plants are also more difficult with fabric in place. When holes are cut in the

fabric during planting, weed seeds in the soil are exposed to air, water and sunlight, defeating the purpose of using landscape fabric. Usually roots of large shrubs and trees get entangled in the landscape fabric or become root-bound. Roots do not grow deep as they should, making the plants easily toppled by wind and susceptible to drought.

Benefits of landscape fabric

To be fair, landscape fabric has its uses. It works well for short-term erosion control during construction and as permanent cover for very steep slopes. It provides long-term strength, durability and protection in plant nurseries and greenhouses or for driveway installation. In commercial agriculture fields, landscape fabric is used, in effect, as mulch. Landscape fabric can be used for planting trees in very weedy uncultivated land by keeping the weeds down to give trees a chance to get established. Once the trees are strong enough to compete with the weeds, the fabric should be removed because it does not decompose.

Conclusion: for most gardens, in place of landscape fabric, a 6- to 12-inch layer of wood chip mulch is just as effective as weed barrier. Another option is to plant low-growing, native ground covers which will out-compete weeds and reduce the expense of replenishing mulch annually.

BILLINGS COMMUNITY SEED LIBRARY EDUCATION UPDATES: *continued from page 4*

(the make-and-take was foiled by hail in her garden prior to the event). She also spoke about asexual plant propagation (planting garlic and seed potatoes) and starting native flower seeds. Erin Douglas took the group on a walk around the center to find flower seeds that were ready to harvest.

September 18th "Composting: Big and Small Methods" Nichole Dotterweich and Cynthia Jessee at

Songbird Community Garden.

Upcoming educational events:
October 15th "Pruning Trees" Larry Dotterweich at Two Moon Park.

November 12th "Tree and Bush Care in Montana Winters" Elizabeth Waddington at Billings Public Library Community Room. Montana's cold temperatures can kill by drying plant tissues either

directly by freezing cellular water or indirectly by freezing soil water. Learn how to prep your plants for unpredictable winter conditions to minimize desiccation damage.

December 20th "Seed Bombs and Bird Feeders" Anthony Sammartano and Cynthia Jessee at Billings Public Library Community room. This will be a kid-friendly make-and-take program.



Calendula (Pot Marigold) *Calendula officinalis*

by Ann Guthals

Calendula is an annual plant with beautiful yellow/orange/gold flowers that appear to glow from within in the sunshine. Another common name is pot marigold, but the plant we think of as marigolds is a different species (*Tagetes* spp.).

Both calendula and marigolds have been touted as plants that repel insect pests and attract beneficial insects. Experiential data back this up to a certain extent. (One of the years of locust infestations in my garden, I had many marigolds planted and the grasshoppers ate just as many marigolds as other garden plants – so I did wonder if the old wives’ tale of marigolds repelling pests was true!) They both do certainly attract beneficials and are worth planting throughout the garden.

Calendula is an annual, but self-seeds vigorously. Once established, you really never have to plant it again! In fact, you will probably be pulling it out from areas where you wish to plant other things. Because it self-seeds so easily and well, it can be used as a cover crop. Just gather the seed heads in mid- to late summer and spread them in bare areas. Seeds may be saved as well and last several years under the right conditions.

Very easy to grow and establish, calendula is also an edible flower. Just pull the colorful petals from the green base and use in salads and soups. Herbalists use calendula in healing salves.

As a companion plant, calendula may be helpful in repelling aphids, especially near cole crops like collards. It attracts insects that feed on aphids.

Beautiful, edible, easy to grow, self-seeding, a good cover crop – if you haven’t already, you might want to give this lovely, sunny flower a try!

Sources: Rodale’s *Illustrated Encyclopedia of Organic Gardening*, editor Pauline Pears, 2002; *Plant Partners* by Jessica Walliser, 2020.



Praying mantis on calendula flower

Square Foot Garden 2022

by Merita Murdock

This year brought us many challenges at the square foot garden (SFG) – most of all the loss of Amy Grandpre’s guidance and coordination. As all of us fellow gardeners in the valley also know the weather wasn’t the most cooperative this year either – cold May followed by hot dry days, oh, and then there was that hailstorm! Despite those obstacles the garden flourished. Personally, I credit much of the success to what I call “garden angels”. I’m pretty sure there were several Master Gardeners (MGs) that visited the garden regularly to weed and tidy up. So many times I headed down there to weed, etc., only to find everything very clean!

The competition! There were eight competition beds this year. We had new MGs and “more mature” MGs in the competition. The judging took place on August 10th, 16 days after the hail. Some of the beds were hit a lot harder by the hail than others. The beds were judged on the square foot garden process, well-thought-out design, space utilization, creative plant choice, plant health, care and maintenance of garden, overall attractiveness, labeling/

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Bean and potato bed, July 26th (day after hailstorm)



Bean and potato bed, September 17th

Beneficial Critters

by Julie Osslund

What are the creatures you love to see each year in your yard? Does the sight of a bumblebee landing on a spring flower or a gorgeous butterfly floating over your head make your day golden? Most of us love to see ladybugs, the goldfinch eating from a bright sunflower, a dragonfly munching on mosquitoes, or a spider on her silvery web.

But some of our greatest allies are not bright or flashy. They don't zig and zag through our habitats with bright colors and good looks. Take the ground and soldier beetles who are voracious predators, devouring Japanese beetles, aphids, and potato bugs. Since they do most of their hunting at night, they might not get much notice. And beetles are great pollinators!



How about an animal that the Farmer's Almanac describes as looking like a "cross between a slug and an alligator"? The green lacewing has larvae that prey upon soft-bodied



garden pests. There are the various kinds of parasitic wasps, some who lay their eggs on the backs of tomato hornworms. Some are so tiny that four could fit on the head of a pin, and they lay their eggs inside the eggs of 200 different garden pests, preventing them from ever hatching in the first place.

A great native pollinator is the hoverfly. It looks like a tiny yellow jacket without the stinger. We found hundreds of these small guys all bussing furiously on alfalfa this year. Their larvae are great aphid and thrip eaters.



In our compost pile are a whole host of unglamorous creatures. They each specialize in decomposing organic debris so that we can use rich soil for next year's garden.

How can we invite these essential



Mint in bloom

guests to our garden? As everyone says, plant a diversity of sources for each season. Early spring is crucial as many beneficials appear in the garden before the pests do. So, in late summer and fall, let some of your carrot, parsley and herbs in the garden go to blossom and then to seed. Provide early forage by planting crocus, grape hyacinth, violas, Geum rivals, and let the dandelions stay while they are yellow. Some recommend not mowing in May. Later, many recommend plants with compound blossoms, like yarrow, golden rod, alfalfa, and flowering herbs such as bee balm, lavender, mint, dill, sage, fennel and lemon balm. Install boards, rocks, water sources, compost piles, and think about other places for beneficials to hide and build their nest.

SQUARE FOOT GARDEN 2022 *continued from page 7*

education, mixture of color form and texture. Our judges this year were: Mary Davis, Marion Grummett, and Rosemary Power. The judges did tell me they had a hard time between 3rd and 4th place. Congratulations to our winners!

First place: **Marilyn Lockwood**

Second place: **DeeDee Jussila**

Third place: **Rebecca Starr**

During the fair, I heard from many folks that they look forward to walking through the garden every year. With that said, we never know who we inspire or encourage with our

gardens. We know some folks always enjoy the garden during the Montana Fair week as lots of veggies vanish and I'm pretty sure our resident rabbit doesn't have a knife to cut cabbage!

What I learned this year from my garden experiences: never give up and gardeners are the nicest people! Thanks to everyone for helping to make the SFG successful and educational, especially to those unknown garden angels. If you haven't stopped by the garden, please do, we will be maintaining it until the first frost.



Marilyn Lockwood's bed on day of competition



2022 Standard Flower Show

by Mary Davis

Thumb-R-Green Garden Club hosted its annual flower show in the atrium of the D.A. Davidson Building, September 3rd during the Farmer's Market. The free show was viewed by 822 guests.

Entering the atrium, color, floral scents, light and openness treated one to a sense of beauty. This year's theme was "Hats Off to Our Heroes" in tribute to those we consider heroes in our lives. The entry staging had many hats of heroes: fireman, policeman, nurse, military, teacher, rancher and farmer.



Entry staging area displaying this year's theme

Club members provided large photos of some of their heroes to be displayed around the area. Amy Grandpre was one of them.



Amy Grandpre

The purpose of the show each year is to educate both exhibitors and the viewing public, to "show off" our horticulture accomplishments, and to provide an outlet for creative expression through floral design.

This year nine flower show judges from around Montana judged the Horticulture, Design and Education exhibits, according to National Garden Club, Inc. standards. Even with the heat, hail and drought, it was a very good show.



Judging the Flower Show

More than half of the members of Thumb-R-Green Garden Club have been through the Master Gardener Program.

As Master Gardeners, you are highly encouraged to enter exhibits in future shows as an amateur gardener or designer. It is fun and educational. Each year the flower show has a booklet printed and online, called "The Schedule" which lists the rules, categories and helpful information. This booklet is available several months prior to a show. Ask Heidi Schueler for a contact person next year to obtain one.



Combination container-grown plants by Marion Grummett in memory of Linda Walters



Floral design "Advisors - Guiding Lights", a Reflective Design



"Actors - Using Your Imagination", 8" design by Ron Hendricks



Top: Horticulture exhibit Cucurbita pepo 'Warty Goblin'
Above: Leek by Merita Murdock



Making Compost Easier And Quicker

by Sheri Kisch

Most of us would collect our peelings, spent flowers, squash rinds and the like if we didn't have to run out back after meals to put them in the compost pile.

To make collection simpler there are pails and buckets that can be kept in the kitchen area. Most have carbon filters to keep the smell down and lids for flies. You can find them as inexpensive as \$22 to \$40. When full, you can make the trip to the compost area. You don't have a compost pile? Then in the fall after putting beds to rest, dig holes where you may plant something next year. All winter you can empty your pail in every hole, dig it in and cover with soil. It will start breaking down by spring. Remember, the smaller the particles the quicker it decomposes.

It is a sad statistic that the US has the highest amount of food waste, at 30–40% of our food supply, or 133 billion pounds and \$161 billion worth of food. Only 6.3 percent is diverted for composting. The USDA reminds us that “when food is wasted, so too is the land, water, labor, energy and other inputs that are used in producing, processing, transporting, preparing, storing and disposing of the discarded food.”

To make matters worse, when food is sent to landfills to rot, it produces methane, a greenhouse gas more potent



Left to right: Lomi Smart Waste Kitchen Composter, Exaco Kitchen Compost Pail, Utopia Kitchen Stainless Steel Compost Bin, BeyondGreen Organic Waste Composter

than carbon dioxide. Wasted food is the single largest component taking up space in US landfills! I would hope that more municipalities would start composting processes sooner than later. There are composters made for restaurants. What's it going to take?

We can help by learning to compost, use vermicomposting (Rayanne Schuler can teach you) or try one of the newest in-home composters. I thought they were a little pricey at first, but think of all the advantages you will enjoy, making your own compost there on the spot, not waiting months, cutting down on the amount sent to landfills, making better garden soil and your own fertilizer.

Sources:

<https://www.epa.gov/recycle/composting-home>

https://www.ams.usda.gov/sites/default/files/media/Compost_FINAL.pdf

<https://furtherwithfood.org/>

Our Vanishing Insects

by Ann McKean

I am an only child. Because I grew up in a small town, I did not have a large group of human playmates, so when my mother pushed me out the door every morning, I had to find ways to entertain myself. I tell people that I grew up under a bush. And it was marvelous.

Nature was my playmate in all her rich, chaotic glory. I ‘farmed’ a family of crickets who received scraps and other well-meaning contributions from me, and I would gleefully watch them chew their food with rapt attention. Wide-eyed, I watched the females lay their eggs with their long ovipositors. I played with gentle bumble bees and big scary spiders and was pinched, stung, or bitten by countless other insects which I mercilessly annoyed because of my curiosity about the natural world. The garden hummed with insects on every flower and leaf, and the air was thick with bees and so many butterflies. Nature

filled me with wonder, and it still does.

I still spend every minute outdoors that I can and I still ‘play’ with bugs. But the terrifying and heartbreaking reality that I have seen with my own eyes is that there are many fewer insects now than there were when I was a child. Some conservative scientific estimates put the world population decline of land-dwelling insects at just under 30 percent over the last 30 years. That is clearly unsustainable. It is believed that relentless development and the resultant loss of habitat is one of the primary causes of this ongoing catastrophic decline.



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Garden Series Classes

by Ann Guthals and Sheri Kisch

Spring Gardening Prep Class ►

The well-attended class covered strawbale preparation including written instructions by Joann Glasser, vermicomposting demonstration by Rayanne Schuler, and explanation of soil and fertilizer requirements. We planted a heritage tomato in grow bags to take home along with a varied selection of other vegetables that most of us had never grown before to share.



◀ Plant Sciences & Pathology

Led by Eva Grimme, the class was very well attended and informative. It was good to revisit up close and personal the plant and pest problems we face in our yards and gardens.



Gardening For Wildlife ►

The mid-July class at Canyon Creek Nursery was led by Anthony Sammartano, Land Steward Coordinator and Montana Audubon Center Caretaker.

Anthony explained the need for wildlife to have food, water, and a place to live in the context of our yards and gardens. Two specific suggestions hit home: 1) if putting out water, e.g., in a bird bath, add rocks to make “islands” for insects who fall in the water to crawl up on, so they don’t drown; 2) plant a diversity of flowers with a variety of colors, flower shapes, heights, and bloom times to attract different pollinators, with the added goal of having something blooming during the entire season.



◀ Flower Arrangements from Your Garden

Canyon Creek Nursery Manager and Master Gardener Ann McKean stirred the imagination and challenged us to look at our yards with a very new sense of beauty, beauty in every single plant or vegetable, dead or alive. Yes!

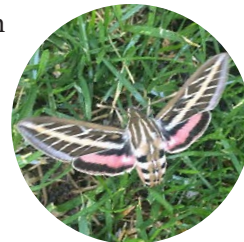


OUR VANISHING INSECTS

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I’m not proposing we throw ourselves in front of bulldozers. However, through individual actions, we each can make a difference right where we live and collectively effect positive change in our environment. Since much of the decline is caused by habitat loss, we can directly and immediately contribute by restoring some of that habitat

right in our own yards. Make your garden space a little larger and your turf area a little smaller. Choose natives if possible.



Forego chemicals. And plant densely and generously the same way nature does. Don’t be afraid to have a leaf out of place here and there, **and** don’t be afraid of the insects that will be drawn to your improved habitat. That is the point! Some will nibble your plants, but if you are patient and work with nature instead of against her, she will balance things out, and you will be rewarded with the tiny ballet that swirls through every healthy garden and by the knowledge that you are making your corner of our world a better place.

Yellowstone County Master Gardener Newsletter MISSION STATEMENT

The mission of the Yellowstone County Master Gardener newsletter is to “educate and inform,” not to advocate or persuade. The Newsletter Editorial Board takes no position endorsing or opposing, approving or disapproving, any of the assertions or arguments in the contributed information. Information submitted to the newsletter is for your interest only.



Meet New Master Gardener Richard Gamba

by Sheri Fredericksen

Richard grew up near John F. Kennedy Airport in New York. After high school, he applied to several colleges, but the University of Montana (UM) responded first and Richard jumped at the opportunity to, as he put it, “escape the concrete jungle”. He graduated from UM in 1997 with a degree in Wildlife Biology and served as Special Agent for the US Fish & Wildlife Service (USFWS) in New York for 10 years before relocating to Spokane, Washington.



Richard Gamba

Richard spent 10 years in the USFWS Spokane office, then looking for a change, moved to Billings in 2019. In his capacity as Special Agent in the Billings office, Richard covers South and Eastern Montana, and occasionally Wyoming and South Dakota. During COVID-19, he covered the entire state of Wyoming.

While living in Spokane, Richard volunteered at the Manito Park garden to help raise money for the city’s parks. In 2011, his garden won “Best Edible and Ornamental”. The judges estimated his garden to be eight years old, when in fact it was a two-year-old garden! This recognition certainly attested to Richard’s careful planning and nurturing of growing plants. The family also had a Siberian kiwi plant that bore so much fruit which they used to make wine and jams, as well as giving much away.

After moving to Billings, he looked into the Master Gardener program and contacted Amy Grandpre. Amy sent him the application for Level 1, which he completed during the winter of 2022. He is currently volunteering at the county courthouse Veteran’s Garden, but is looking for other volunteer opportunities that can work with his schedule as he travels quite often.

As a child, Richard was always interested in growing things; but he was really fascinated with cacti and succulents and has quite a variety of both, in addition to Bonsai trees. Richard is currently Vice

President of the Billings Bonsai Club. He has a jade tree that is 67 years old, and a 27-years-old Finger jade plant. Richard feels that plants are therapeutic and help clean the indoor air.

He and his wife, Oksana (who is from Ukraine) take a lot of pride in growing their own food, much of the time from seeds rather than buying starts. They have a large strawberry bed which is grown with seeds from Oksana’s homeland.

Richard said this particular variety of strawberries is high in vitamin C and very sweet.

Richard and Oksana have a 4-year old son and a 6-year old daughter. Richard’s daughter has already developed a passion for growing and helps him with planting. The family’s garden was well-prepared by the previous homeowners for those pesky rabbits that can create havoc, although they did find a burrow under their shed. Once the burrow was taken care of, and they got a Flemish Giant rabbit, future rabbit trouble seemed curbed.

One of Richard’s pet peeves is, of course like many of us, the dreaded “weed” word. The other is seeing people planting flowers, etc. in pots and, other than watering them, do nothing else to care for them. He said he finds it interesting that “gardeners” do not think to fertilize what they have planted.

A special tool that Richard has is a handheld hoe from Ukraine which he said is very helpful, especially in smaller garden areas. His favorite reference book is the Montana Master Gardener Handbook and he refers to it quite often.

Outside of his passion for growing, Richard’s hobbies include fishing and woodworking. He recently caught his first paddlefish near Sidney, MT. He made a beautiful live edge table which sits in his living room area and displays some of his plants.



Richard with one of his jade trees. He made the live edge table by the window to display his Bonsai trees.



Self-Seeding Annuals

by Suri Lunde; photos by Suri Lunde and Ann Guthals

In my imagination, an ideal garden would be one where I expend minimal effort to have flowers bloom throughout the season. Which is why I like self-seeding annual plants that I only need to put in once; because when fully grown and flowering, effectively, I have plants already 'sowed' for the next season.

To that end, I have my poppies and cosmos planted in one flower bed. By the time the poppies are spent, the cosmos takes over and blooms until first frost, resulting in a flower bed with continuous colors. Additionally, showy plants like four o'clock, cleome, and datura provide abundant colors and interests from summer until the end of the season. Planted strategically, self-seeding annuals can be an arsenal in minimal-effort gardening. At least for this gardener.

Fair warning: self-seeding annuals tend to take over a flower bed, or appear in unsuspecting areas, having been dispersed by wind or unintentionally by humans or animals. So be prepared to thin out seedlings as they come up to avoid overcrowding. Once established for the season, these annuals are low maintenance (some deadheading might be required to encourage more blooms) and they drop their seeds on their own. If desired, their seeds can be collected, dried, stored, and then sowed in another area the next season. Free plants from just one planting!

Some self-seeding annuals to try:
 Alyssum • Amaranth
 Calendula (Pot Marigold) *see page 6*
 Cleome (Spider Plant) • Columbine
 Cosmos • Datura (Devil's Trumpet)
 Four O'Clock Flower (Mirabilis)
 Larkspur • Love-in-a-Mist (Nigella)
 Marigold • Moss Rose (Portulaca)
 Orachs • Poppies • Snapdragons





The Charcoal Forest

How Fire Helps Animals and Plants

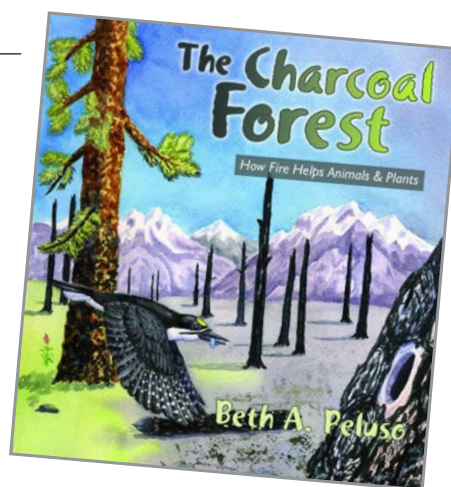
by Beth A. Peluso

It seems like summers are hotter and fire seasons are longer and raging fires are in the news all over western United States. Images of wildfires in the media are frightening for children and the blackened trees make the forest seem dead. This book poses the question “Who needs burned trees?”

Author Beth Peluso has created a formula for children to read about and predict species reliance on burn areas through repetition and format. The rhythm of naming the species, asking “who needs burned trees”, repeating the species and giving a short why answer such as “to open its cones and spread its seeds” adds to

the read-a-loud cadence of the text. A beautiful watercolor interpretation by the author accompanies each double-page spread and an embedded box illustration shows the measurement scale or intricacies, for example, of a horntail wasp or lodgepole pinecone.

This is a great book to browse and discuss or read paragraph by paragraph with children of all ages. The introduction explains the kinds of fires, the severity, and how the land, animals, and birds



spring back after a fire. The icons (fire dependent, fire adapted, and any disturbance, including roadsides and blown-down tree stands) that describe the type of fire habitat the species is adapted to are shown in the introduction and then used at the top of each page. Readers Words that are unfamiliar are in bold with a glossary in the back, and the scientific names are given after each common name in the “This is the life” section.

Older readers will like learning facts like gemmae are the little frisbee-like cells in the cups of lung liverwort. Even the youngest pre-readers can enjoy searching for the black-backed woodpecker featured on each page.

Lawns Into Meadows

by Owen Wormser

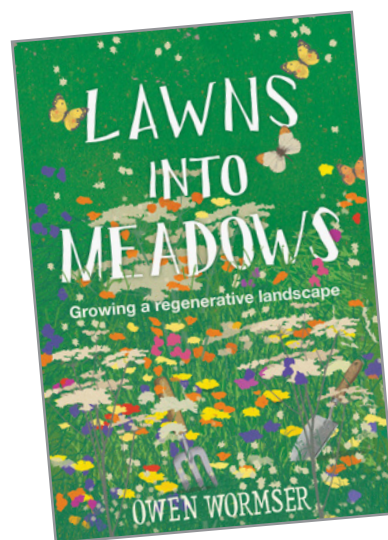
We Made a Wildflower Meadow

by Yvette Verner

Ground covered by lawns in the U.S. adds up to an area about the size of Washington State. Lawns are basically biological deserts with one type of grass and little else. Lawns require constant mowing with polluting machines and, for many people, applications of nasty chemicals.

Meadows on the other hand consist of many types of grasses and flowers, supporting many animal species from insects to birds to mammals, and require little maintenance. A series of linked urban “meadows” can create habitat and provide wildlife corridors that allow small animals to migrate and maintain biological diversity (such an example of this is the Pollinator Pathway created by the University of Washington in Seattle).

A meadow does not have to be acres big – it can be as small as a corner of a yard. Urban meadows can start



small and give the homeowner a chance to educate the neighborhood about the purpose of converting lawn to meadow. Choosing lower grasses and performing regular maintenance to keep out weedy takeover as well as having some mown pathways and edges can provide species diversity and healthy soil with a neat, socially-acceptable appearance.

Lawns into Meadows is a useful how-to book for building a meadow. One can start with bare ground or convert an existing grassy area using seeds and plugs. What you plant will be determined by your site, growing conditions, and intentions for the meadow. Both books have good descriptions on grass and flower choices.

continued on page 14

Yellowstone Master Gardener

Yellowstone County Extension Office

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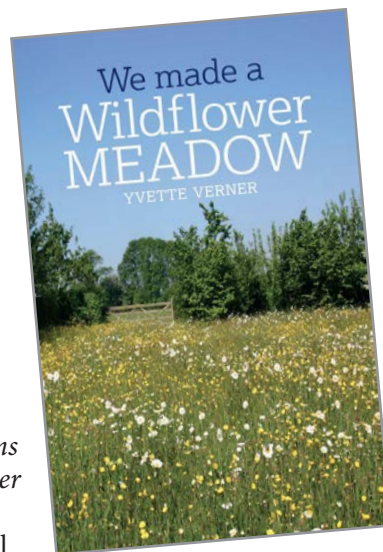
Billings, MT 59107-5021

BOOK REVIEWS *continued from page 13*

The landscaper who wrote the book lives back east – the book is not specifically helpful for envisioning or planning a meadow in Montana. I have been observing the open grassy areas where I walk and see that there are a variety of grasses and some flowers, but not the profusion of flowers in, say, an English meadow. And the grasses go dormant in the winter. I believe a meadow planned for our environment would require some extra thought and planning.

As a companion book and a logical follow-up to *Lawns into Meadows*, I decided to read *We Made A Wildflower Meadow*. It is not the practical, detailed how-to book that *Lawns...* is, but it is a delightful example of lyrical nature writing and does contain much information, albeit about English, not American, meadows. The book provides an informative description of how the owners deliberately created a meadow from start to finish. The author is very conservative and accurate in her prose, so the book can be read in a few nights.

There is information not only about grasses and wildflowers but also about the other living things that



appeared in the meadow as it matured, accompanied by helpful line drawings of the animals, for example. Throughout the book Ms. Verner has cached wonderful tidbits of natural lore, such as the difference between dragonflies and damselflies. There are even plans for building nest boxes for various animals.

Most helpful for us Americans is that the U.K. species list in Appendix 1 is re-created in Appendix 2 for North American species. And the grasses and flowers each have a code noting what conditions they need to grow well.

Shrinking the amount of land covered in green lawns is something each landowner can work on to help reduce pollution, build soil, capture more carbon, and support species diversity. Both of these books can serve as useful and helpful guides in this endeavor.

