



IN THIS ISSUE

- Interview: Ron Hendricks**1
- Winterizing Tips**2
- Winterizing Your Garden Tools**.....3
- In Memoriam: Gail Tesinsky** 3
- Want To Feel More Self-Sufficient? Get A Rain Barrel!**.....4
- Gardening Advice Or Myth**..4
- Book Review: Nature's Best Hope**5
- Santa Barbara Greenhouse, Deluxe Lean-To Style**6
- Questions To Dr. Bob**7
- Master Gardener Certificates**.....7
- Use It Up, Wear It Out, Make It Do, Do Without**.....8
- Master Gardener Updates** ...8
- Recipe: Squash And Sage Lasagna**.....9
- Common Mullein**10
- Asian Giant Hornet Update**.....10
- Polka-Dots In The Shade**....11
- 10th Annual 4x4 Square Foot Garden Contest Winners**....11
- Five Gardening Lessons To Learn From This Ladybug Story**.....12
- Grasshoppers**13
- Earwigs**.....14
- Garden Visitors**.....14
- Summary of Yellowstone County Master Gardener Association Quarterly Meeting**.....15

Yellowstone Master Gardener



NEWSLETTER

Volume 9, Issue 4 • October/November/December 2020

Ron Works High, Joyce Works Low

by Bess Lovec

Ron Hendricks towers well above most, so when gardening chores are divided between his wife, Joyce, and himself, he goes high. I'm not convinced he has the upper hand, though. Ron considers Joyce his most important gardening teacher and inspiration. She took the Yellowstone County Master Gardener course before him, encouraging him to enroll, which he did.



Ron Hendricks

They focus on about everything in their yard near the rims but especially roses and vegetables. Joyce started with flowers, then Ron created raised beds for vegetables. Along the way they added bulbs and various trees. Their upcoming project is to create a landscape design for a beautiful oasis in their backyard, having both just finished a landscaping class.

What I so admire about this Master Gardener is how his knowledge translates directly into beneficial practices. They use no pesticides, although they have plenty of reasons to justify using some. Instead they take a proactive approach by using chicken wire to keep out numerous deer and rock chucks and adding praying mantis and lady bugs to their yard. Also neither Ron nor Joyce feels particularly loyal to any vendor. With what they know, they can shop around. They usually order seeds for vegetables and annuals online, while picking up some plants at local nurseries.

He warned about some fertilizers here that contain a lot of bindweed, even though their extraction falls to Joyce. Apparently they weed the old fashioned way, great for strengthening arms.

Their challenges have been mostly mammals. Their neighbor feeds the rock chucks and whatever else eats food designated for them. Ron has not disrupted local harmony by addressing her actions, assuming she would continue to feed wild animals regardless. They did not bypass the grasshopper infestation of 2020, either, with significant harm to their

flowers. He hasn't tried stinky stuff to put on roses to keep deer away, since that would defeat the purpose of the lovely scent of roses. Thinning used to be a challenge for Ron, and I concur that ripping out something that is established in this challenging zone hurts, but, once again, Joyce leads by example.

They volunteer in many venues. During the interview, Joyce was working in the southeast bed at Veteran's Park. In the spring and fall, Ron works at the children's area at the Zoo. He helped host the MG class of 2020 before it ended face-to-face meetings due to Covid. Ron appreciates Toby's updates from what he and I viewed

continued on page 2

*We want to hear from you!
Send your submissions for
the newsletter to
ymastgardener@gmail.com
by December 15th for the
next issue.*



Winterizing Tips

by Tracy L. Livingston

Most of us are already well aware of what is needed to prepare the garden for the winter months so please look at this as a brief refresher for ‘winterizing’ your garden beds (and plants within them), rejuvenating soil nutrients that were depleted during the growing season, preserving seeds that you are hoping to reuse, and eliminating any diseased plants. Some of you will be planting a cover crop, applying a fresh layer of mulch and preparing your cold frames for fresh winter greens.

Checklist for winterizing your garden

- Cut perennials back (2–4 inches from the soil surface).
- Sensitive plants should be protected through the winter. Plant wraps can be used to protect younger perennials from hungry deer and/or rabbits. Remove these wraps when temperatures begin to warm in the spring. (I’ll be trying chicken wire around my ninebark and mock orange, as sadly the deer love them.)
- Remove annuals from the garden after they have completed blooming.
- Make sure any diseased plant material is removed and destroyed.
- Add organic matter to restore the nutrients within the soil (compost, manure, leaves/straw, and certain mulch types can be used).
- Root crops can remain in your gardens longer, but they need to be protected from freezing temperatures and frost damage by mulching.
- Make sure that you have drained/“blown out” your irrigation system to avoid any damage due to freezing/thawing.
- Don’t forget to water your trees and shrubs throughout the winter (hand-water, to avoid damaging your irrigation system). Winter watering should take place earlier in the day, and when temperatures are above freezing.



Take care of your gardening tools

- Remove all dried or caked-on dirt with a wire brush, rinse and dry thoroughly.
- Sharpen dull tools using a whetstone or file. Working at a 45-degree angle, start at the outer edge and move toward the center.
- Sand off any rust spots with fine sandpaper or steel wool, and coat the metal with vegetable oil.
- Wipe a light coating of boiled linseed oil or paste wax on wooden handles to preserve them and prevent cracking or splitting.
- Store hand trowels and other small tools in a bucket of sand soaked in oil to further deter rust, and hang rakes and shovels in an easy-to-access spot.
- Bring water hoses in out of the weather and ensure that they’re properly drained and coiled correctly (not kinked).
- On your mower, be sure to clean and sharpen the blades (residue can encourage rust). Avoid storing gasoline in your mower over the winter.



Garden planter care

Whether made of clay, plastic or wood, planters require basic care to make it through the winter months.

- Empty the old potting soil out of the planters prior to winter storage. Rinse the soil residue out of the containers with clear water.
- Scrub the interior and exterior of clay and concrete pots with steel wool to remove dirt and salt stains. Use an abrasive sponge to scrub plastic pots.
- Combine nine parts water with one part household bleach. Rinse the planters with the bleach solution to sterilize them so they are ready for spring planting.
- Allow the planters to dry completely, and then store them in a shed or garage where they are protected from the weather.



RON HENDRICKS *continued from page 1*

in 2015. He and Joyce work at the square foot beds and the group house at Metra, too. No doubt his big laugh and easy ways bring out the best in co-workers!

They continue expanding their skills into best environmental practices. Three rain barrels keep their city water bill low. One barrel has a tank heater for winter.

Composting has recently become part of their routine. Canning tomatoes, pickles, beets, carrots, and onions brings gardening full circle, feeding them through the winter. And pruning trees presents no problem for this tall yet humble fellow. However, when you meet Ron, don’t let his modesty fool you. His gardening experience runs wide, deep, and high.



Winterizing Your Garden Tools (or, better yet, do it every time!)

by Elizabeth Waddington

Cleaning

Start by washing the dirt off your tools with a garden hose and scrubbing with a wire brush. To sanitize, the slogan of 2020, you can dip the tools in a diluted solution of any household bleach. Turpentine can be used for any items that might be covered in sap. If the metal is rusted, vinegar can be used to soak items for about 3 hours. You will need to use steel wool, wire brush or sandpaper to remove the crusty rust. If you didn't let it get away from you, a stiff toothbrush will remove loosened rust. Rinse thoroughly before applying 3-1 oil or boiled linseed oil to the metal surface.



Removing rust with vinegar



Coat wooden handle with linseed oil



Cleaned tools

Clean wooden handles and lightly sand with a fine grade sandpaper. Wipe clean with a new cloth (not paper towel) and give wood a light rubbing with boiled linseed oil. Multiple light coats of oil will work into the wood best and not build up a sticky surface. Wipe with a clean lint free

cloth between each coat. I noticed a distinct difference in the absorption of oil due to the variety of wood each of my tool handles was made of. They all eventually became smooth to the touch.

Not only does a thorough cleaning mean sterile tools, it also ensures your tools will last longer. Just think of it as protecting your investment.

Storing Tools

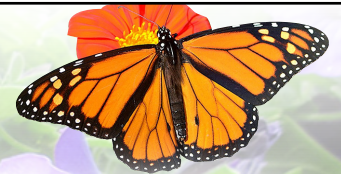
Even when you know you'll be using your tools the next day, don't leave them out in the elements. After cleaning them, return used items to the shed, where they will be kept dry and are likely to remain rust-free. A great way

to store small spades and trowels is by keeping them in a pot filled with sand that's been wetted (not drenched) with 3-1 oil or boiled linseed oil. This helps keep the metal well-conditioned. Your larger tools will do best hanging in a dry, ventilated shed. You can also plunge them up and down in that oil/sand mix bucket before you hang them up.



~ In Memoriam ~

Gail Tesinsky



Gail, a long-time Master Gardener, passed away August 17th, 2020 at home with family by her side. She was diagnosed with Stage 4 metastatic breast cancer in May. She was a beautician, managed a nursery and greenhouse, enjoyed crafts, loved hotrod and classic cars, and raced at Bonneville Salt Flats for years. She was well-known for her signature hairstyle and her genuine laughter. Her extensive garden and plant knowledge, positive attitude and work ethic will be missed by many Master Gardeners who had the honor of working with her. Cremation has taken place and her family will announce A Celebration of Life at a later date.

"She was an incredibly hard worker and had plugged in numerous hours keeping the Courthouse Memorial Gardens beautiful and well cared for."

— Amy Grandpre



Want To Feel More Self-Sufficient? Get A Rain Barrel!

by Bess Lovec

If your yard is on a well, this article immediately becomes irrelevant. If you're on city water, in a year or two you could save some fees by harvesting what little rainfall we have. Other advantages are that this barrel increases my steps per day and develops my patience because we could play a game of chess in the time it takes to fill a bucket.

I acquired this rain barrel serendipitously. My son-in-law ordered one to water his chickens, but Amazon sent two, either accidentally or because he's such a great customer. Anyway, we hauled it back from Minnesota this past spring. As you can see, we built a platform for it and had to alter the gutter. I don't use the water for dog bowls, though. In a red bucket, the water looks fine, but in a white



bucket, it is coppery-colored, apparently due to something off the roof, so who knows what the water contains? However, I have used its water successfully on houseplants, flowers, and herbs all summer. It has a tight filter at the top to keep out most debris.

For the first time, today being August 24th, it's empty. Mine is a 55-gallon unit. They run from \$100-200, depending on your fashion needs. The plastic has been upcycled (made from used plastic), which likely drove up the cost somewhat. The collapsible ones are much cheaper but I predict have a much shorter lifespan. So let's hope for rain to put out fires and fill my barrel again. Now to discover what happens if the water freezes this winter, although I hope to stay ahead of that.

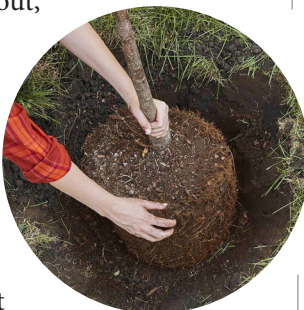
Gardening Advice or Myth (GAoM) *Weeding out fact from fiction*

by Suri Lunde

Below are a few gardening advice/myths that we often hear but which may or may not be solidly rooted in science or actually work.

GAoM 1: When planting a tree or shrub, dig the hole twice as wide and twice as deep as the root-ball.

A planting hole should be twice as wide as the root-ball but no deeper. By applying this planting principle, you will encourage the roots of a plant to grow out, which creates stability and allows the plant to readily find water and nutrients. A good way to make sure that



the root-ball is at the right depth is to place the top roots so that they are parallel with the soil surface and then apply 2 inches of mulch over them. Think of it as a "planting area," instead of a "planting hole."

GAoM 2: Nothing grows under a black walnut tree.

The black walnut tree, *Juglans nigra*, exudes a natural herbicide known as juglone. This substance is also found in the tree's leaves and fruit husks. It inhibits many plants' growth under and around the tree (a process known as allelopathy), thereby limiting the tree's competition,



leaving more water and nutrients for itself. Vegetables, fruit trees and some landscape plants may be killed or stunted if grown in close proximity to black walnut roots or within the tree's drip line.

GAoM 3: Native and well-adapted plants are much better and much more "environmentally sustainable" for home landscaping purposes.

The truth here is both yes and no. Both native and well-adapted plants include those from a wide range of soil types and rainfall patterns. Some are very fussy, others are very tough. Site considerations such as drainage, irrigation, and the site usage should always dictate plant selection.

continued on page 5



Nature's Best Hope

A New Approach to Conservation That Starts In Your Yard
by Douglas W. Tallamy,
author of *Bringing Nature Home*



Five hundred years ago, America was a land of deep forests, vast prairies, swamps, and millions of animals and birds. We have transformed this vast land to islands of preserves and national parks surrounded by developed lands with little biological diversity. Turfgrass lawns, for example, take up 40 million acres and have very low biodiversity. Many native plants in yards have been replaced by exotic, introduced species of bushes, trees, and flowers.

The major problem with this is loss of ecological vigor and resilience. For example, acres of a monoculture crop can be wiped out by a single pest or disease. We are losing species of numerous classes of animals and plants so fast now that many biologists think we are in a new sixth mass extinction. Diversity is strength in the natural world. Creating parks and preserves was a good thing and has helped save some wild things, but they are not enough. We need to approach the non-preserved lands in a new way to reclaim biological diversity and strength for all living things, including the human species. We humans cannot survive without the web of life.

Dr. Tallamy's "new approach to conservation" is to create corridors and links between the preserved lands so that life can flow freely and genetic strength can be re-established. He has coined the term "Homegrown

GARDENING ADVICE OR MYTH *continued from page 4*

GAoM 4: Replace potting soil of container plant every season.

Discarding potting soil each year is probably overkill for most container plants. A valid and affordable alternative is to simply work in a little compost from year to year to improve the soil structure and provide added nutrients. But if you are growing a rare or cherished plant, it is worth the investment to change the potting soil annually.

Conclusion: Let's promote truthful gardening wisdom and debunk gardening myths. By letting unequivocal gardening myths die, we all gain a better way to grow showy perennials, overflowing hanging baskets, and bountiful vegetables.

National Park" to designate the transformed lands outside our current national parks. He uses "homegrown" because he envisions ordinary citizens changing their landscapes to include less lawn and more native plants (and hopefully more native animals, especially insects). These transformed lands will link the national parks and allow animals and plants to spread and intermingle.

What needs to be done? We need to remove non-native plants from our yards and plant natives. Dr. Tallamy is clear on why this is important. The main group of animals we will support by this is insects, which are key to supporting other animals. And the two main insects he especially hopes to help proliferate are caterpillars (to feed birds) and pollinators (critical to life on Earth as we know it and including in America 4000 species of native bees).

This work was begun in the 1970s by the National Wildlife Federation which created the Certified Wildlife Habitat program. Other smaller, regional programs followed. The NWF program has grown from 243 certified habitats in 1973 to 217,000 in 2018, over 2.5 million acres (p. 204). But more needs to be done.

Dr. Tallamy lists and explains 10 steps everyone can take to help create Homegrown National Park.

1. Shrink the lawn
2. Remove invasive species
3. Plant keystone genera
4. Be generous with your plantings
5. Plant for specialist pollinators
6. Network with neighbors
7. Build a conservation hardscape
8. Create caterpillar pupation sites under your trees
9. Do not spray or fertilize
10. Educate your neighborhood civic association

The author writes in a clear, straightforward, understandable prose and anticipates and answers questions readers will have, including providing a Question and Answer section at the end.

As Fleetwood Mac sang, "Don't stop thinking about tomorrow. Don't stop, it'll soon be here." Putting Dr. Tallamy's list into action will make things better – for now and for the future. "Indeed, more species of all kinds will inhabit our landscapes, increasing the stability and productivity of our ecosystems. This proactive approach to earth stewardship will no longer be the unfulfilled dream of a few environmentalists, but a culturally embraced imperative, not only because we have no other choice, but because it works. It is nature's, and thus humanity's, best hope." (pp. 12-13)



Santa Barbara Greenhouse, Deluxe Lean-To Style

by Tracy L. Livingston

Now that Alan and I have almost finished the setup of our new greenhouse, I can't decide if we are crazy or determined. We have built both a Grandio Greenhouse (GG) at our Billings residence (stand-alone style) and a Santa Barbara Greenhouse (SBG) at our Sheridan, Wyoming home (lean-to style).

They are two totally different companies and products. The GG is metal framed with polycarbonate roof and walls while the SBG is redwood framed with glass walls and polycarbonate roof. The last thing I will say about the GG is that their product, directions and customer service is fantastic. Regarding the SBG, their product is excellent. Their instructions could leave you pulling your hair out and their customer service needs improvement. The instructions have not been updated to keep pace with the changes in greenhouse design and the engineering drawings aren't entirely correct. For instance, Figure 3 is often referred to although no Figure 3 is provided in the instructions. When questioned about this we were told, "Oh, that means Figure 4, there is no Figure 3." There are parts included that are not referred to in the instructions, and no equipment list to check all the parts against.

Our greenhouse was built upon an existing 8-ft wide slab at the rear of the house [Fig. 9]. Because the greenhouse we purchased is 9' x 20' the foundation we built had to extend no less than one foot beyond the slab. We chose to utilize 4x4 redwood beams as the base of the foundation. These were reinforced with Simpson Strong® L-brackets, straps and ties. The foundation extending beyond the existing slab was created by making a gravel-filled 1½' wide section, 22' long and 8" deep. This gives us an outer edge within the greenhouse where we can sweep water, leaves, etc. The 4x4 beams that rest on the gravel are supported by landscaping blocks so as to disperse the weight of the walls supporting the roof sections. Each wall weighs

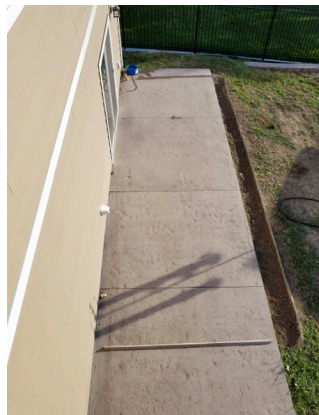


Fig. 9

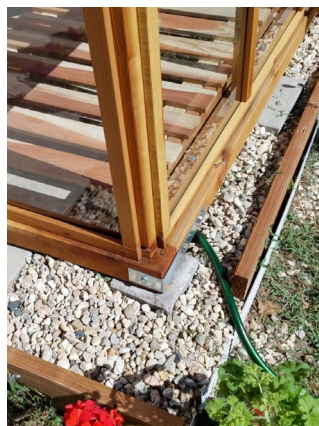


Fig. 5

approximately 65lbs [Fig. 5, 6]. Overall the greenhouse consists of three panels on each end, five wall panels and five roof panels.



Fig. 6

Once we had the foundation and ledger boards in place, the rest of the greenhouse went up quite easily. Two people can complete the basic structure in one day, although we strongly recommend not attempting to put this kit together with less than two people. Also, be sure to order the kit with all panels pre-assembled, this will save you time and aggravation. Ours was ordered pre-assembled and the various walls and roof sections are well marked and machined to at least 1/16 of an inch if not better.

As with every gardening project that we've done, from raised beds to both of these greenhouses, we changed aspects of the design to fit our space and improve on the original design functionality to suit our needs.

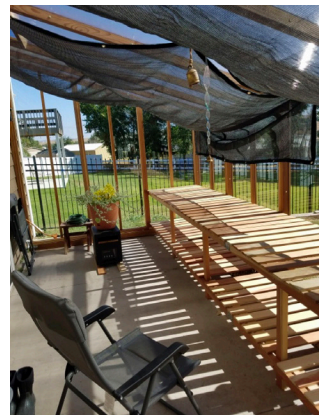


Fig. 2

Each greenhouse comes with two complete benches that run the length of the structure. Since the house side of our lean-to greenhouse has water, power and a sliding door we opted to build one bench on the outer wall with two levels rather than one level. The benches are supposed to have the boards nailed to the rail. I wanted to be able to raise various boards to give us more growing space from the bottom of the bench. We assembled the boards in sections; six on the top and five on the bottom, so they are removable. [Fig. 2, 4] The two lower wall vents are designed to be opened and closed by pulling on a rope. That seemed tacky to us so we ordered two more heat-

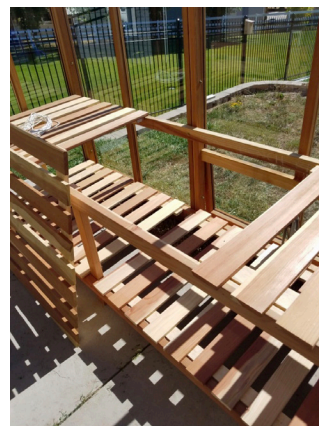


Fig. 4

continued on page 7



GREENHOUSE *continued from page 6*

operated vent openers and installed those on the lower vents similar to the way the upper vents are controlled. We are going to make screens for the five windows as none are offered. [Fig. 3] Owens Corning Propink ComfortSeal® was placed between the ledger boards and the side of the house. The Phillips head screws provided to secure the greenhouse walls to the foundation seemed too weak for our winds (besides 2 out of the first 5 stripped) so they were replaced with lag screws.

We also installed two sunshades that make quite a difference on interior temperature. [Fig. 7, 8] We still have a thermostat controlled fan and mister system provided by the manufacturer to complete.

If you survive these challenges you will have a beautiful and functional greenhouse. [Fig. 1]

Santa Barbara Greenhouses: <https://www.sbgreenhouse.com/about-us/our-history/>
Grandio Greenhouses: <https://grandiogreenhouses.com/>



Fig. 3



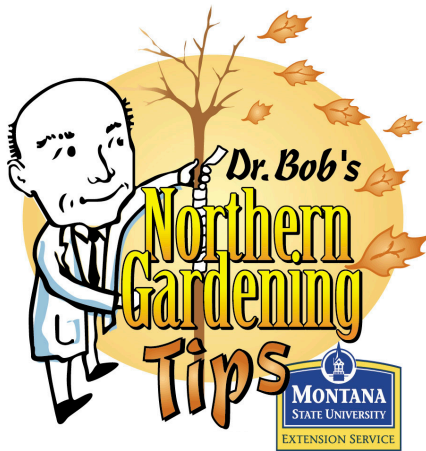
Fig. 7



Fig. 8



Fig. 1



Question to Dr. Bob

by Corry Mordeaux

What can I do now to decrease winter damage to my ornamentals?

Much of our winter damage is the result of desiccation (drying out) of the plant parts, particularly the ends of the branches. These often go first because of their small diameter and the fact that they are farthest from the water source (the soil). Winter sun and dry winds cause the plant to lose moisture faster than it can replenish it from the soil. And if the soil is frozen it can't replenish it at all. The way to fight this is to wait until the leaves on your plant turn color, then water the plants deeply once each week until the soil freezes. This will build up their internal water reserves so that their "reservoir" is full going into the winter. If the plants are small you can also provide them with a windbreak to block some of the drying winds. Make a simple one by pounding four stakes into the ground around the plants and wrapping burlap around the stakes. Don't cover the top.

Dr. Bob's wisdom lives on.

Master Gardener Certificates

by Amy Grandpre



Here are Master Gardeners who received their certifications.

Level 1 Shirt & Certificate

Diane Slind
Joy Culver
Karen Kennah
Patty Doble
Wendy Vacca

Level 2 Shirt & Certificate

Kyle Neary
Paul Scarpari
Rebecca Starr



“Use It Up, Wear It Out, Make It Do, Do Without” ... continued

by Elizabeth Waddington

After watching the garden become tossed green salad the last two summers, too late for the leafy greens to recover and pock marking tomatoes into ugly condition, we decided to tackle the next long-term project – a hail cover. A friend in the Heights built a magnificent pull-across inclement weather cover for their large garden area which was supported by 8 x 8 beams set in concrete. The scale was as massive as the frame (okay, they needed fencing to keep out deer unlike us with just rabbits, mice, and two-year olds). What could we repurpose that was left over from previous projects?

Utilizing the cyclone fence along the back of the garden which also carries the sprinkler system with sprayer nozzles seemed logical. Also, utilizing the existing metal fence posts with rabbit fencing would save digging post holes and pouring concrete. We supplemented our existing stash of sprinkler system PVC pipe with a few additional lengths of pipe and more couplers and corners to provide the frame. The disadvantages of using existing fencing are the need to stoop under PVC pipe to enter the garden and inability to walk around the raised bed boxes if the cover is rolled out. The most expensive supply was two “Debris safety netting” tarps by X-Tarps (from Amazon for \$110 each) which allows rain to penetrate but not hail.



Hoyt cover



Deploying hail tarp



The covers roll from the back of the garden along a guy wire in the middle and along each edge. They are held in place with bungee cords. Have you ever wondered what to do with the excess of little bungee cords with a ball on one end that come in the multi-pack tube? Perfect for securing the two tarps together in the middle and down each side. The cover can be deployed in about 6 minutes with two people working in pouring rain illuminated only by lightning flashes. Our marriage survived that experience and we began to proactively set it up when the

weather seemed likely to include hail/torrential rain.

Note: Tarp is heavy duty knitted poly mesh, UV and water resistant, mesh opening is less than 2mm. This type of cover could also be considered a shade cloth for those consecutive over 100° days.

Master Gardener Updates

MASTER GARDENER CLASSES

Level 1 Classes

Registration for online classes is open. Registration is \$125. The classes will also be accessible to Master Gardeners who renew the program in 2021 for a \$20 fee. For more information, visit: <https://yellowstone.msuextension.org/horticulture/mastergardener/index.html> <https://www.facebook.com/YCMGA/>

Level 2 Classes

Level 2 classes will be in-person during February and March 2021. The class size is usually small enough that social distancing is manageable. Class location will be posted soon. Level 2 classes may be online as well; forecasted date will be announced later.

VOLUNTEER HOURS

Participants who took Master Gardener courses during 2020 get

a one-year extension to complete their required volunteer hours, i.e. volunteer hours must be fulfilled by 2022 instead of 2021.

For example: If you took the course in May of 2020, your required volunteer hours is due May of 2022. However, if you take the course in 2021, you have only one year (2022) to complete your required volunteer hours.



RECIPE submitted by Ann McKean

Squash And Sage Lasagna

This is not diet food, but it is crazy good comfort food that is quintessential fall and straight out of your garden.

Ingredients:

- 1 butternut squash
- Sage leaves, straight from the garden, washed and dried (I use a huge wad; you may want less but be aware they shrink when they cook)
- 1 ¼ sticks butter (6 tbsp reserved for béchamel)
- 1 yellow or sweet onion, diced
- 1 clove garlic
- ½ – 1 lb. spinach (fresh baby or frozen and thawed) or crisped kale leaves (or skip the green vegetable if it seems too healthy)
- Pork, Italian or breakfast sausage (optional)
- 6 cups milk
- 6 tbsp flour
- ¼ tsp freshly grated nutmeg (or more to taste)
- Pollo powder, Maggi brand (my guilty secret ingredient) or salt
- Freshly grated pepper
- 1 box Instant lasagna noodles
- 3 cups grated Mozzarella
- ½ cup grated Parmesan

Directions:

Dip whole squash in boiling water for a minute to soften the skin and make it easier to peel. Remove skin to the flesh and cut squash in half lengthwise, remove seeds, then, using an oiled knife, cut ½ inch slices crosswise. Brush lightly with oil and place them on oiled baking tray with a sprinkle of salt. Roast in a 400°F oven for 10–20 minutes till soft but not mushy.

While the squash is roasting, sauté the whole sage leaves in butter until butter becomes nutty and leaves just begin to crisp. Watch them; they can burn at the last minute and become bitter. Remove to paper towel.

Add onion to skillet and cook until soft and golden. Add minced garlic, cook for 30 seconds. Remove to bowl. Add spinach to pan and cook for another minute. Remove and set aside. If using, cook and drain sausage in the same skillet.

To make the toasted béchamel, melt 6 tbsp butter in sauce pan, stir in the flour and whisk till smooth. Cook on medium heat, whisking, until the flour begins to color, about 2 minutes. Gradually add milk and continue to cook and whisk until the sauce thickens and is smooth. Bring to a boil and reduce heat, stirring occasionally until fully



thickened. Turn off heat and add pollo powder, grate in the nutmeg and a few grinds of pepper.

To assemble the lasagna, layer the ingredients in a buttered 9"x13" baking pan, or two 9"x9" foil pans if you are planning to freeze. Coat the bottom of the pan with béchamel, then place three (or 6 if using 9"x13") instant noodles on top. Add another coating of béchamel and then a light sprinkle of mozzarella, squash, onion, pork, spinach, sage, and another light sprinkle of mozzarella. Don't worry if the sage leaves crumble a little: that means they are crisp enough. Repeat one more layer, then finish with noodle, béchamel, mozzarella, parmesan, and fresh whole sage leaves on top. Don't worry if you have extra béchamel left at the end. Sometimes I pour a tiny bit of milk around the edges if it seems dry.

Chill, wrap, and freeze, or bake at 350°F for 30–45 minutes or until edges just bubble. If using frozen, thaw, add 15–20 minutes to baking time. Let stand 15 minutes before serving and serve with a walnut salad for an easy but decadent fall dinner. Try not to eat it all at once!

Nutrition information:

Calories: don't ask

Carbs: too many

Fat: you don't want to know, but whatever it is, it's worth it!



Sage blooming in June. The purple blooms, center, are the culinary sage, and the pink are garden sage.

Culinary sage (Salvia officinalis) seems to be hardy enough in Billings, it's beautiful when it blooms, bees love it, and the deer leave it alone. Photo taken in September.



Common Mullein (*Verbascum thapsus*)

by Ann Guthals

Aptly named, common mullein is indeed easily found in Montana. Introduced from Europe, it is found throughout temperate North America by roadsides, in pastures, along fence rows, and in exposed gravel soils.

Mullein is a biennial plant. The first year it produces woolly, sage-green leaves that resemble lamb's ear (but is not related) in a rosette low to the ground. The second year a tall stalk grows with about the top third covered with 5-lobed yellow flowers all summer long. These flowers set copious seeds that enable this "weed" to spread easily.

Though it is found in pastures, livestock do not eat mullein. It is good forage for many insects and birds – I have especially observed American Goldfinch eating mullein seeds from the stalks.

A Taste of Heritage by Alma Snell (2006) states that the leaves were used as "farmers' toilet paper," linings of cradles, and even as menstrual pads (p. 142). My own particular use is to loosen a tight cough by pouring boiling



water over the leaves, covering head and bowl with a towel, and breathing in the steam (being careful not to have the water too hot for the last part). My herbal medicine books say mullein tea is good support for the respiratory system. Please see books from the following reference list or search the internet for further information on these uses.

Gardeners have grown common mullein in their landscapes – do remember that it spreads easily. I have a perennial hybrid variety in my garden that grows several flowering stalks and attracts many insects. An internet search for hybrid mullein will give you an idea of the variety of colors and blooms available and where they may be purchased.

References:

Weeds of the West; Tom Whitson, Editor; 1996
A Taste of Heritage; Alma Hogan Snell; 2006
The Holistic Herbal; David Hoffman; 1983
The New Age Herbalist; Richard Mabey, Editor; 1988

NEWSLETTER EDITORS

Suri Lunde • Ann Guthals • Ann McKean • Bess Lovec
Corinna Sinclair • Elizabeth Waddington
Sheri Kisch • Tracy L. Livingston

CONTRIBUTORS

Amy Grandpre • Corry Mordeaux

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.

Asian Giant Hornet Update

by Sheri Kisch

Washington state agriculture workers have been working hard all year setting out bottle traps and using infrared cameras to locate the two-inch long giant hornets and nests. The first hornet was found in 2019.

Washington has a long history of fruit production. A hornet that can decimate an entire bee hive in minutes to hours would be extremely detrimental to the farmers of apple, blueberry and cherry orchards. The state is attempting to find all nests before the breeding season begins this fall. Both Washington and Canada have confirmed sightings. If left to become established, murder hornets would have a very negative impact on the economy, environment and public health.

We wish them the best of luck.



Polka-Dots In The Shade

by Corinna Sinclair

My husband gets a bit starry eyed when I get nerdy about plants in the garden. He says it is amazing how much I know about plants, but there is so much left to learn! Like my newest revelation – polka dot plant in the shade on the patio!

I had never thought about hypoestes for outside. I made the mistake this year of buying three gorgeous Sunpatiens for the shady patio under the grapevine, then I needed to move the shadiest two when they stopped blooming altogether. It's not easy to find shade plants in late June, but there at the garden center, was this sweet little Polka Dot plant. I paired it with a shade-loving impatien (I paid more attention this time) and set about yet another experiment in color for my patio shade.

What a cheerful little addition! The plant held its color and thrived in her hanging pot, even though the fungus gnats seemed to find that pot the most hospitable of all. I won't take her inside because of that, so unless I bring her into the garage overnight she won't survive the next freeze. Even a light freeze made her splotchy little leaves curl up and dry.



She got drenched a few times in summer rains but was protected from the wind and scorching sun by the leaves of the grape overhead. I am not great about fertilizing, but she did get one or two doses of Miracle Gro and a sprinkling of bone meal/blood meal mix. I only wish I had planted her earlier – she would have had more time to grow big and beautiful!

Hypoestes are supposed to tolerate full sun in the house, which is the normal recommended location for this native of South Africa. I've also read they want to be fairly humid, but I didn't notice any ill effects through our dry late summer here in Billings. The soil

was a mix that held the moisture well but wasn't heavy, so without the direct sun she didn't need daily watering.

I am looking forward to shopping for Polka Dot plant on purpose next year for not only the shade under the grape vine but also my fence garden in the side yard, which gets about an hour of direct sun each summer day. I think that will make the bright greens, pinks, and reds pop to rival even the most exuberant coleus. I wonder what other indoor plants would liven up my shady patio?

10th Annual 4x4 Square Foot Garden Contest Winners

Congratulations to the winners!
This year we have a tie for second place.

First place:

Garden #5; Brian Godfrey; \$50

Second place:

Garden #4; Rick Shotwell; \$25
Garden #8; Marilyn Lockwood; \$25

Third place:

Garden #3; Gloria Ervin; \$10

Thank you to all our competitors:
Roy Wahl • Rebecca Starr
Ron & Joyce Hendricks
Charlie Hendricks • Marla Patterson

Special thanks to our judges:
Mary Davis • Marion Grummett
Debbie Werholz
Michael Walz (Judge's Assistant)



First place winner



Second place winners



Third place winner



Contest judges



Five Gardening Lessons To Learn From This Ladybug Story

by Connie Oswald Stofko • www.buffalo-niagaragardening.com • This article is reprinted by kind permission of the author.

While back, some gardeners went to Lockwood's Greenhouses, 4484 Clark St., Hamburg, looking for advice. Every branch of their spirea had been coated with aphids. And if that wasn't enough, now they had these new insects, ugly things. They brought some specimens in a small plastic bag and showed Teresa Buchanan, general manager at Lockwood's. The gardeners wanted to know what to do. Should they spray the insects with some kind of a soapy solution or organic pesticide? Buchanan's quick response: No!

Those new bugs were the larvae of ladybugs, which can eat about 50 of the pesky aphids a day. The gardeners almost eliminated the insects that would take care of their aphid problem!

Here are five lessons you can learn from this ladybug story:

Lesson #1: Don't kill insects unless you know exactly what you're doing. You may be getting rid of the very insects you want in your garden!

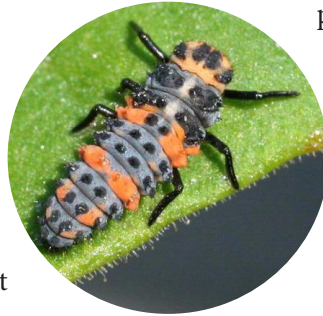
Lesson #2: It's hard to tell one insect from another. There are many kinds of ladybugs, plus there are things that look like ladybugs but aren't. And ladybug larva looks like it's a completely different insect. Get help to figure out what that insect is.

If you think an insect is eating your plant, put a piece of the plant, along with the insect if possible, in a small plastic bag and take it to a local garden center like Lockwood's. They have trained staff who can help you figure out what to do.

True story: Many years ago, not long after we had moved into a new place, I noticed something bothering the leaves of a shrub in our backyard. I loved the fragrant flowers of the shrub, so I took samples of the leaves as well as the flower to a garden center to see what I should do. The person I talked with asked, "You know that the flower and the leaves are from two different plants, don't you?" Um, no, I didn't.

It turned out that what I had was a lovely mock orange, but some kind of weed bush had grown up around it. Since only the leaves of the weed shrub had the problem, I didn't have to spray anything. I just cut the weed bush down and enjoyed the mock orange. I'm glad I got expert help!

Another option for figuring out what is bothering your



Don't be put off by its look; this insect is a gardener's friend. It is the larva of a ladybug, specifically a seven-spotted lady beetle (Coccinella septempunctata). They eat other insects that might damage your plants.
Photo courtesy Russ Ottens, University of Georgia, Bugwood.org

plant is to contact the Cornell Cooperative Extension office in your county. They all operate a little differently, but the Master Gardeners generally have a helpline that you can call, or you can email a question and attach a photo, and sometimes you can stop in.

Lesson #3: Realize that even if you are killing insects that are pests, your spray may kill other insects, too. Don't spray unless you absolutely have to.

Lesson #4: Even an organic spray can kill insects that are helpful to your garden. Organic doesn't mean harmless.

Lesson #5: Resist the urge to spray pesticides. "Most of the time you don't have to spray for aphids," Buchanan said. When there is a large infestation of aphids, the number of ladybugs will increase, too, she said.

"Everybody wants to use pesticides, but if you wait, the good guys will come along and wipe out the bad guys," Buchanan said. "If you already see the aphids and the ladybug larvae, you're golden. Just wait."

If you don't see the ladybug larvae and you're nervous, you can spray, but just use plain water, she said. Use your hose to spray the aphids off your plant. Some aphids will probably remain on the plant, and that's okay. The aphids you squirted off might not be dead, just dispersed, and that's okay, too. You're buying some time for your plant and letting the ladybugs catch up with the aphids.

Squirting the plant with water can work for indoor plants, too. If you take a plant outside and bring it back in, you might find that you've brought aphids with it. Take it to your sink and spray off the aphids and let them go down the drain.

If that isn't enough to control the aphids and your indoor plant is being damaged, you may have to use a pesticide, Buchanan said, since we can't depend on ladybugs and other beneficial insects to eat aphids inside our homes. Again, get advice from the Master Gardeners or a local garden center to make sure you have identified the problem correctly and use the appropriate product.

Remember our ladybug friends and keep these five lessons in mind the next time you consider using pesticides.



Grasshoppers

by Ann McKean

Grasshoppers are insects which provide food for songbirds and gamebirds. I gleefully watched a robin tirelessly feed her brood countless fat juicy grasshoppers earlier this summer. They are also wildly destructive herbivores. There are 548 species of native North American grasshoppers, with more than 100 species occurring in Montana. Of those, 20–25 species cause crop and rangeland damage. Most grasshoppers prefer to eat grasses and others target forbs, but while they usually avoid trees and shrubs unless the outbreak is severe, many will eat a wide range of plants.

Some species are migratory, some hibernate as juveniles, but most overwinter in the egg stage in the soil, hatch mid to late spring and begin to feed immediately. They go through five or six stages of nymph (instar) which can take approximately 30–40 days from hatch to maturity and then can live as adults for several more months. They are especially numerous in years when spring weather is warm and dry. Not all grasshoppers are locusts, but all locusts are grasshoppers. While grasshoppers can only hop, catapulting up to 20 times their own body length, locusts are a family of grasshoppers that can fly and go from being solitary to gregarious if conditions are right. Their outbreaks can become massive and cause devastating destruction on a biblical scale.

Grasshoppers eat large ragged holes in leaves and can be infuriatingly destructive.

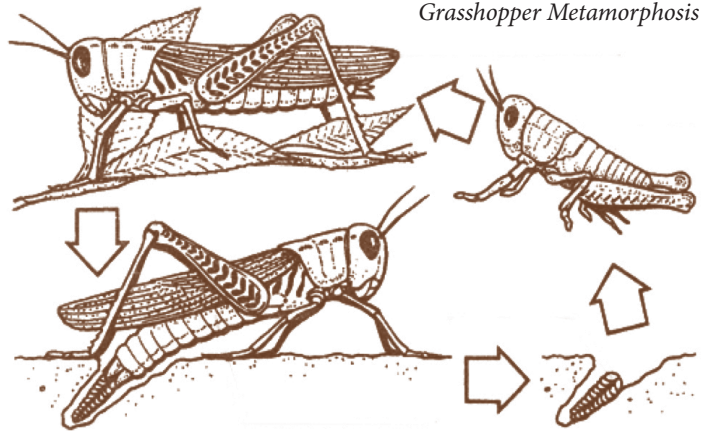
They are difficult to control, especially as they get larger and more numerous, because they are so mobile, and some control attempts may cause more harm than help. They proliferate in areas of cropland and open weedy patches of soil where it is easy to lay their eggs.



Scouting, prevention and exclusion are the safest and most effective management methods.

As with many other pests, disturbing the soil in late summer and fall is a preemptive deterrent and is probably the most practical, safe and effective method of control. Covering beds with row cover can be helpful early in the season, but large grasshoppers can often chew through the fabric, so metal screen may be necessary. Insecticides such as neem oil and pyrethrins are available but are really only a last resort and are not very effective, because as sunlight and high temperatures quickly break them down, most pesticides have little residual effect to kill the never-ending new arrivals. Never apply pesticides where there are pollinators. Biological controls include *Nosema locustae* (NoLo Bait). Applied as a coated bran which the

Grasshopper Metamorphosis



nymph grasshoppers eat, *Nosema* is a protozoan that is selective to grasshoppers and caterpillars. Only effective in the first and second instar (1/4–1/2 inch long), it must be applied every few days during this period. Although it can harm the caterpillars of butterflies and moths, it does not affect birds, fish or mammals. Eco Bran is a non-organic insecticide containing the chemical carbaryl. Don't be fooled by the word Eco in the name, this is a non-selective poison and will kill beneficial insects as well as a few grasshoppers. Chickens also make excellent, safe grasshopper control. Regional grasshopper outbreaks usually last 2–4 years and then collapse as disease naturally builds in the population. As with all IPM practices, healthy plants can withstand greater damage than unhealthy plants. If all else fails, you can turn the tables and eat the grasshoppers; they are very high in protein!

Note: the high occurrence of blister beetles observed by many gardeners this year is not a coincidence, since grasshopper egg pods are the larval food source for most species of blister beetles!

References:

<https://agresearch.montana.edu/wtarc/producerinfo/entomology-insect-ecology/Grasshoppers/MSUGrasshoppers.pdf>

<https://www.montana.edu/news/4616/msu-students-faculty-try-grasshopper-stir-fry-cricket-tacos>

https://apps.msuextension.org/documents/UA_Files/200826_Grasshoppers%20in%20the%20Yard%20and%20Garden.pdf

Another Way To Read The Newsletter

Enjoy the Yellowstone County Master Gardener quarterly newsletter online! Share with friends and access recent editions in the archives. Find local interviews, interesting articles, tasty recipes, upcoming activities and opportunities, plant features, and more. Comment, share ideas, and encourage others to become a Master Gardener.

www.YellowstoneMasterGardenerNewsletter.wordpress.com



Earwigs

by Ann McKean

If you google earwigs, the first page of hits is a list of pest control companies, but dig a little deeper and you might wonder what all the fuss is.



Earwigs have long been maligned through rumor and misunderstanding. Their name comes from the incorrect myth that they will crawl into your ears and eat your brain. Really? It is true that they have scary looking pincers which they rapidly deploy on attackers and wayward fingers, but it's the rare pinch that does more than startle. The pincers, called cerci, have no venom and are used for capturing prey, male wrestling (think rut) and self-defense against predators.

Earwigs are omnivorous. Yes, they do sometimes nibble on soft garden leaves (including young seedlings) and their damage looks similar to caterpillar nibbles with irregular holes or chewed margins, however, they are primarily decomposers. That means they eat dead and decaying leaf material and the occasional dead insect; they provide a benefit by removing decaying plant material which could become host to disease. They also are nonselective predators and scavengers of aphids, mites, undesirable nematodes, and whatever else they can find.

Earwigs prefer to hide in cool moist places, including the divot in an apple that another pest, such as a bird or caterpillar may have created, or under vegetables in the garden. Known to be quite shy, they are nocturnal. If the threat of a pinch isn't effective, earwigs will resort to glands which emit an unpleasant odor and skunk a would-be attacker. Adults have folding wings, but they rarely fly. As fall temperatures drop, they may hitch-hike into the house to stay warm where they may be helpful by eating some of the other insects that sneak in then too. If you don't want them around, the best way to discourage them is to practice good sanitation in the garden by raking loose leaf material and removing damaged or rotting leaves. This also discourages other naughtier pests that may be hiding there too. As with all good IPM practices, you should start with best cultural practices to keep your plants healthy with sufficient water and nutrients and proper plant placement and pruning. Healthy plants can easily shrug off the nibbles of a few earwigs.

While earwigs can do minor harm, they also provide beneficial services, so you must decide what your threshold is for sharing your space with them.

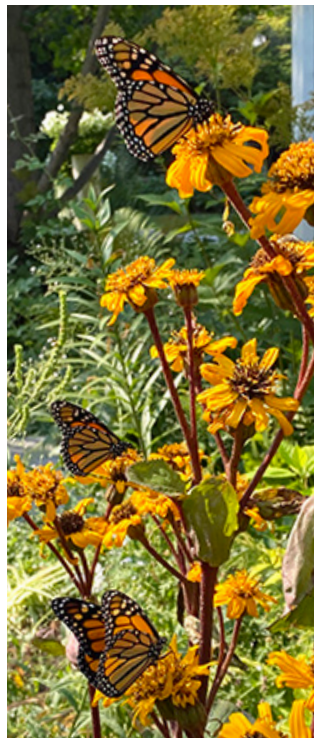
Garden Visitors

by Suri Lunde

A showcase of some insect visitors, other than bees and wasps, in my garden this summer.



Black and yellow garden spider (*Argiope aurantia*) with its grasshopper meal



Monarch butterflies on ligularia



Twelve spotted skimmer dragonfly



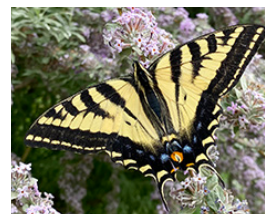
Banded sphinx moth



Achemon sphinx moth



Painted lady butterfly



Tiger swallowtail butterfly



Praying mantises

YELLOWSTONE MASTER GARDENERS

P.O. Box 35021 • Billings, MT 59107

<https://mtmastergardener.org/> • <http://www.ycmgmt.com/>

Dara Palmer, Montana Master Gardener Coordinator
dara.palmer@montana.edu

Amy Grandpre, Yellowstone County Master Gardener Coordinator
agrandpre@co.yellowstone.mt.gov

Abi Saeed, Associate Professor/Extension Specialist
Plant Sciences & Plant Pathology
abiya.saeed@montana.edu



Summary of Yellowstone County Master Gardener Association Quarterly Meeting (September 9th, 2020)

- Brian Godfrey, *President*, welcomed the Board via Zoom. He stated that this may be our new normal while social distancing still in place.
- There are currently 21 members of the YCMGA.
- **The Rockery at the Square Foot Garden:** This area was torn down to put in a new surface for the parking area. In some places they dug down a total of 12". The new plants had to be taken out and are now in the greenhouse.
- **Master Gardener Table:** Amy Grandpre, *Advisor*, stated the Master Gardener Table was a success. All items were taken and donated. May be doing it again in the future.
- **Donations:** There were no seed donations this year. Walmart donated mini-greenhouses, trays, etc. and are in the hoop house. Brian would like to first offer these donations to those who have projects where they can be used, then to Association Members. They will be moved to Amy's office for safe keeping.
- Chris Smith, *Treasurer*, said the **South Park Gardeners Market** is lackluster this year. Many helpers have stepped back due to Covid-19.
- Sherry Doty, *Secretary*, presented information for the **Garden Video series**. Channel 7 has a program that would provide 13 hours of studio time for classes to be taped and shown on the channel. Classes can also be taped in other locations. Before committing, a camera/video person would need to be found to tape the classes. Sherry will report back to the Board with info on pricing and contract info. Brian and Sheri Fredericksen, *Vice-President*, volunteered to help with the project. AnnaMarie Linneweber, *Board Member*, suggested that we contact Toby Day for ideas and tips on taping!
- Amy stated the **Magic City Coalition** is looking for a volunteer from the Board to participate with their group. Amy will recruit any volunteers at the next meeting.
- Amy asked if we typically have a **yearly financial audit**. Chris said everything is ship shape, that we file with the state and IRS.
- Chris mentioned that there was a **scam for a \$500 gift**.
- Amy asked Brian and Tracey King, *Board Member*, if they would commit to another 2 years in their current positions. Both agreed.
- Brian announced Chris Smith's replacement will be **Greg Thomas**. Chris will be on board until May 2021.
- The signature list for the board will need to change. Linda Brewer and Chris will need to be taken off the list.
- **Master Gardener Class News:** Level 2 class will be held February through March, in Room 105 at the Courthouse, unless it becomes available online. Amy said the Level 1 class is easy to access. Classes can also be taken again by any renewing Master Gardener (who has paid their yearly dues), for an additional fee of \$20 to view the class on Brightspace.
- Next Meeting: November 18, 2020, via Zoom



Useful Online Links



MASTER GARDENER

Yard and Garden MontGuides <https://store.msuextension.org/Departments/MontGuides-by-Category/AG/Yard-and-Garden.aspx>

Submission of Samples http://diagnostics.montana.edu/physical_sample_submission.html

Montana State Master Gardener Facebook <http://www.facebook.com/MTMastergardener>

Yellowstone Master Gardener Newsletter Blog

www.yellowstonemastergardenernewsletter.wordpress.com

Ask An Expert <https://www.msuextension.org/>

Yellowstone MG Newsletter Submissions ymastergardener@gmail.com

YELLOWSTONE COUNTY MASTER GARDENER ASSOCIATION

Facebook <https://www.facebook.com/ycmga>

Website <http://www.ycmgamt.com/>

For information on the Association, Master Gardener projects and volunteer activities, calendar of upcoming events, minutes of past Board meetings, etc.

Amazon purchases: *By using the portal below, and then typing in Yellowstone County Master Gardener Association, 0.5% of purchases made through this portal will be donated to the Association. You can even have an app link to connect you instantly to the sign-in page. Please use this link when making Amazon purchases!* <https://smile.amazon.com/>

