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# Yellowstone County Master Gardener



## NEWSLETTER

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## A Master Gardener Cheerleader: Phil Painter

by Bess Lovec

When I say Phil Painter is an optimist, I'm not referring to the local nonprofit club. Instead I'm sharing that he radiates positivity, which is always welcome as we fall headlong into winter! Phil completed Level 1 about the same time he began a lawn care/landscape maintenance business. He, like many Master Gardeners, combines his interest in gardening with his work life. His business has been so successful that he has little time to garden or volunteer, although his spouse gardens. This summer his wife had enough beefsteak and roma tomatoes, generated in pots, to give many away. She also raises herbs for cooking. The weekly weeding, though, falls to Paul. They plan raised beds for spring 2019 with a few intended goals: so the Chesapeake Bay retriever cannot dig their labors and to utilize less city water. In the past they have grown corn, carrots, radishes, cucumbers, squash, and broccoli.

He was included and even at times forced into gardening his parents' 20x60-foot plot. His mother found the pursuit much more challenging in Harlowton than her native California. Eventually he recruited her to the MG program, which she did in Helena. Sometimes knowledge flows upstream!

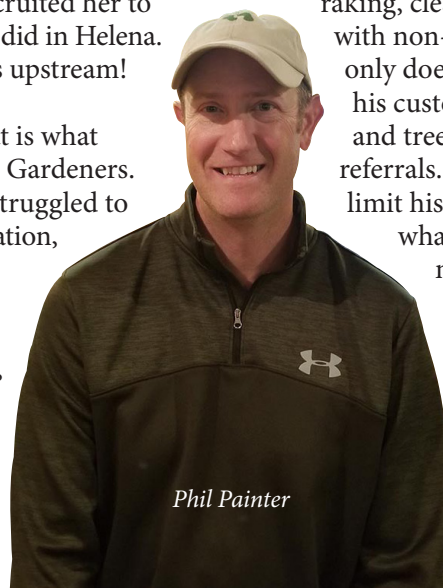
The welcoming, open format is what Paul cherishes about Master Gardeners. Prior to his enrollment, he struggled to find correct regional information, and he appreciated learning the why to many of his questions. Much of the prior information he was supplied, even locally, was opinion rather than fact, so he was hungry for accuracy.

He finds value in the attitude of sharing information plus the broad range of topics explored. He freely and frequently gives Amy's number to customers. His advice to new gardeners? Call the Extension Office and sign up for Master Gardeners' classes. We have a super cheerleader! He hopes the direction of the program will be towards youth, suggesting the Boys and Girls Club or Scouts, to give young people a sense of accomplishment. Even though he has little time to volunteer with our various activities, he has enjoyed observing the number of volunteer options blossom.

His company does not spray because to do so requires special licensing. This factoid alerted me to the notion that if a company does spray, the client might want to check on their licensing. I'm relieved that spraying necessitates licensing. Of course homeowners can spray at their own familial and pet risks.

We discussed brands of equipment, which I won't endorse herein, and the services he provides: mainly mowing, then power raking, clean-up, and fertilizing with non-pesticide products. He only does sprinkler blowouts for his customers. For landscaping and tree pruning, he makes referrals. Wise enough to limit his scope of practice to what he can successfully manage, Paul devotes this time of year to blade sharpening and oil changes. Specific wisdom he shared with me included

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Phil Painter

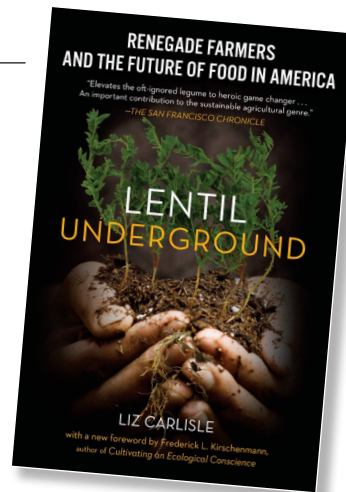


## Lentil Underground by Liz Carlisle

I adore this nonfiction book for so many reasons! As a gardener, a dreamer, a reader, and a Montanan (after being here 43 years), this book nurtures those of us craving some prodding towards creativity. It's about the conversion from conventional, large-crop, synthetically fertilized farming to rotating, small crop, organic farming. Technical while still being accessible to the nonscientist, *Lentil Underground* explains the process of finding new ways to do what no longer works and the willingness to take the leap away from the mainstream. Many third-generation farmers were facing bankruptcy in the 1980s while farming the way they were told to do by the U.S. Department of Agriculture and Montana State University agriculture professors.

Liz Carlisle, a Missoulian by birth who holds degrees from Harvard and the University of California at Berkeley, writes in a crisp journalistic style made popular today by writers such as Michael Lewis and Mary Roach. She weaves information into a timeline featuring real characters in an ongoing story that reflects recent history of the past few decades.

"My intention has changed from making money to growing good-quality, healthy food. I think the soil's happier. The farm just feels better. It's like it knows I'm not going to pillage." These few farmers in Montana who moved away from debt to large corporations towards certain weeds to replenish their soils represent a broad



philosophical shift. The independence and innovation of farmers fortunately cannot be restrained, even though they were bucking the trend and often alienating neighbors and family members. In the long run, most organic farmers not only survived but thrive.

What began with some founders of AERO (Alternative Energy Resources Organization), now based in Helena, has become essentially commonplace. Albertsons and Walmart carry organic produce, whereas that designation used to be only carried by specialized, expensive health food stores. The movement no longer is the domain of a small, kooky cluster of

transcendentally minded hippies, although the evidence, as explained by Carlisle, is that it started that way. Both the history of the movement and the character descriptions involved make colorful fodder for reading.

As a gardener, I still feel mixed about black medic and clover helping fix the nitrogen in my flower and vegetable beds. On one hand, I care about appearance. I get stuck in those middle class values that Carlisle confronts: "It became customary, when passing by a tidy, productive farm, to remark that a good family must live there." Alternatively, I feel relief knowing I help the soil by ignoring what's under the canopy of flowers and vegetables, thereby contributing to healthier, nutrient-rich soil.

She includes some celebrities, too, since land use often mirrors personalities of those that own it. I won't be a spoiler, though, because reading the book far exceeds reading this review. If you have doubts about picking up a copy, keep in mind that it was the 'Read for all Incoming Freshmen' at the University of Montana in the fall of 2017. The themes of thoughtful change while taking charge of destiny from the ground up can inspire future leaders and gardeners everywhere to ask essential questions and experiment.

### PHIL PAINTER *continued from page 1*

that there's no need to water lawns until July (yards don't like "wet feet," aka wet roots), and the many lovely tall grasses so popular lately need thinning every 3 to 5 years. Also trim lilacs after blooming rather than eliminating new blooms in the spring.

So if you crave witness to one of the successes of our program, contact Phil Painter for inspiration and information!

### RECIPE by Ann Guthals

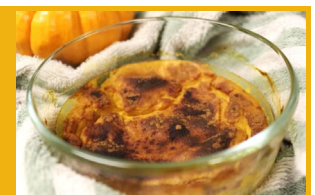
## Pumpkin Pudding

#### Ingredients:

2 cups cottage cheese  
2 cups cooked well-drained pumpkin (or other winter squash)  
4 eggs  
1/2 cup sugar (or less)  
1/8 tsp. salt  
Nutmeg

Blend cottage cheese, pumpkin, eggs, sugar and salt in the blender. Pour into small greased Pyrex glass baking cups till about 2/3 full. Set cups in baking dish and fill baking dish about halfway up cups with hot water. Sprinkle tops of custard with nutmeg, if desired. Bake at 350 degrees until custard is set – about 45 minutes to an hour.

*from NY Times Natural Foods Cookbook*



# Winter Indoor Plant Care

by Elizabeth Waddington



Here are a few tips to keep your indoor plants thriving through our long cold Montana winters.

## PESTS

- Pests can be a real annoyance. They usually appear after outdoor plants are brought inside for the winter, or when a new houseplant is brought home. Your houseplants may also sprout bugs once brought inside your house because they no longer have outdoor predators.
- Spider mites thrive in warm, dry houses. Frequent misting under the leaves of houseplants will discourage them. A solution of 1 cup flour, ¼ cup buttermilk, and a gallon of cool water, applied in a mist, may be a good organic deterrent.
- Small flies may occasionally appear around houseplants. These are called fungus gnats and are harmless to plants and humans in their adult form, though their larvae can damage young roots. Letting the soil dry out a bit between watering can discourage fungus gnats.
- Remove aphids from houseplants with a mixture of equal parts rubbing alcohol and water and add a drop of dishwashing detergent. Apply with a soft brush. This also works on mealybugs and scale.

## LIGHT

- When arranging houseplants in your home, consider their lighting needs. Some plants require lots of direct light to thrive, while others prefer lower levels of indirect light.
- Put plants that can tolerate full sun in south- and west-facing windows, plants



artwork by Elizabeth Waddington

that like partial shade in east-facing windows, and low-light plants in north-facing windows.

- Most flowering plants need to be within three feet of a sunny window.
- Most plants require 12 to 16 hours of light per day.
- Rotate plants once in a while to encourage even growth and prevent legginess.

## WATER

- Believe it or not, more houseplants die from overwatering than from anything else! Water plants with room-temperature water.
- Use filtered water if your tap water contains high amounts of minerals or chemicals. Fluoride can cause the leaf tips of some houseplants such as peace lilies, to turn brown.
- Water houseplants in unglazed clay pots more frequently because the porous clay will absorb and evaporate some of the water.
- If your houseplant leaves are dripping, even when you haven't watered, it's trying to rid itself of excess water (a process called "guttation"). This makes a plant vulnerable to disease-causing fungi, so you may want to reduce the amount of water you're giving the plant.

## FERTILIZER

- Most houseplants are in a resting phase during the winter and do not require fertilizer. However, a balanced fertilizer (10-10-10) works fine, fertilizers with a higher ratio of nitrogen will promote more foliage growth, and

flowering plants can use a fertilizer with more phosphorous.

## TEMPERATURE

- Most houseplants grow well with daytime temperatures of 65 to 75 degrees F and night temperatures of 60 to 65 degrees F. Temperatures below 50 degrees F or rapid temperature fluctuations may damage some plants.
- Keep houseplants away from cold drafts, radiators, and hot air vents. Also make sure houseplant foliage doesn't touch cold windows by placing a cardboard between the window and plant.

## HUMIDITY

- Humidity is a tough factor to perfect, as most homes are especially dry in Montana winters. Most common houseplants will be happiest when the relative humidity is between 40 and 50%.
- Group houseplants near each other to form a support group to cope with the low humidity of most winter homes.
- Set plants on shallow trays of moistened gravel to raise humidity. This keeps the pots out of standing water.
- Occasionally turning on a humidifier near your plants can be effective at combating indoor dryness. You would have to hand mist plants several times a day to raise the humidity sufficiently.
- Plants like cacti and succulents can tolerate lower levels of humidity.

## MORE HOUSEPLANT CARE TIPS

- Loosen the dirt in your pots periodically. Re-invigorate your houseplants by removing the top ¼

*continued on page 4*

# Master Gardener Program and the Master Gardener Association

by Ann Guthals

Some Master Gardeners have asked lately what the difference is between the Master Gardener (MG) program and the Yellowstone County Master Gardener Association (YCMGA).

The MG Program was started to extend the effectiveness and reach of the county extension agent by educating many people in the county with advanced gardening knowledge who could then reach out to others. The gardening classes started in Yellowstone County in 1994 and now consist of three levels of classes with tests and volunteer hour requirements for each level. To remain a MG in good standing requires a certain number of volunteer hours each year.

To keep MGs educated and in touch with other MGs, there are also classes, field trips, and social events outside the main series of classes. The MG program is overseen by Montana State University and is part of a national program of master gardeners.

In 2012, a group of MGs wanted to provide a mechanism for receipt of grant funds and other donations to benefit the existing MG program which is dependent on government funding. The hope was that this outside source of funds could help keep the MG program viable even if there were funding cuts and would be a nonprofit vehicle to receive donations to help the MG program.

These MGs started regular meetings and in 2012 created the YCMGA, wrote Bylaws and Articles of Organization, obtained a 501(3) nonprofit status, applied for grants, and



began formal association board meetings. The mission of the Association was to raise funds to support the MG program, to supplement educational efforts for and community involvement by the MGs, and provide ongoing opportunities for connections between MGs. The current association also seeks to educate residents and decision-makers in Yellowstone County of the value of the MG program.

To belong to the Association, a MG must be in good standing as a MG and pay annual dues of \$15. About 40% of current MGs are also Association members. Association members may attend Board meetings and run for the Board when vacancies arise. The Association is active in promoting various volunteer programs such as the MG activities at the Metra fairgrounds and community gardens around the city. YCMGA also holds several social events during the year including summer barbecues and a winter Christmas party. The financial and volunteer help from the YCMGA takes some of the load off Amy Grandpre, the extension agent who runs the MG classes, and also allows her more time to pursue other aspects of her extension work.

In addition to helping financially support the MG program with dues and grants, Association members receive discounts at garden-related businesses in Billings and at some MG classes that require tuition. Dues fund some MG projects directly through mini “grants” from YCMGA.

The new Association President is Brian Godfrey who is excited to expand the scope of the YCMGA activities in new ways. He is interested in developing a mentorship program to connect seasoned with beginning gardeners. He would like to see more MGs who complete the courses remain active members and hopes to bring inactive members back into good standing as active volunteers. Brian and the Board are looking forward to celebrating the MG program’s 25<sup>th</sup> anniversary in 2019. And, having developed a MG project sign, they hope to see all projects display these signs to further educate the general populace about the reach and nature of MG volunteer projects in the community.

If you are interested in joining and becoming involved in the YCMGA, you may reach President Godfrey at 406.606.0184 or you may look up the Yellowstone County Master Gardener Association website (<http://www.ycmgamt.com>) to see Board members, minutes, articles, and a calendar of events.

## WINTER INDOOR PLANT CARE *continued from page 3*

inch of soil and top-dressing with fresh potting soil.

- If your houseplants’ leaves grow dusty, gently wipe them down with a wet paper towel. Too much dust can clog a plant’s stomata (pores), making it harder for the plant to “breathe.”



**Challenge: does someone want to try this off-beat tip?** To get rid of bugs in houseplants, push a clove of garlic into the plant’s soil. If the garlic sprouts and grows, just cut it back.

# Thinning and Spacing in the Vegetable Garden

by Ann Guthals

One of the garden lessons it took me the longest to learn was to rigorously thin my plantings. It has always been hard to kill little plants I so carefully cultivated and I always tended to leave too many. There was then just not enough room for each plant to develop fully.

I also have learned to be more cognizant of spacing plants – seeds as well as grown plants. I have learned to keep the size of the adult plant in mind as I plant. My rule of thumb has become to imagine the adult carrot or beet or onion and space the seeds or bulbs accordingly, so each can grow to its full size. One way to accurately space seeds is to plant seed tapes, strips that already have the seeds embedded. Or you can make your own seed tapes by lightly dampening toilet paper strips, placing the seeds on them and placing another layer of damp TP on top. The paper will break down and the seeds will be spaced correctly.

In addition to imagining the adult carrot or onion or using seed tapes, seed packets are also helpful for determining how far apart to put seeds. I think I have tended to plant them closer together and put in too many, with the idea that they wouldn't all germinate and I was hedging my bets that way. But the upshot really was that I had to spend a lot of time thinning!

How to thin? You can get down at plant level and pull the weaker plants, leaving the stronger plants spaced correctly apart. Do this when true leaves have appeared. Another method is to use small scissors and clip the unwanted seedlings. This works well for squash plants, I found.



Above: Misshapen carrots due to overcrowding  
Left, above & below: Thinned carrots and a successful crop

It's a bit more challenging for smaller seedlings like carrots and rutabagas but also works well. This method leaves organic matter in the soil to feed the microbes while allowing the chosen plants to develop fully and leaves the roots of the chosen plants undisturbed.

If pulling rather than snipping, don't wait too long to pull the unwanted seedlings or the process will greatly disturb the remaining plants. And don't forget you can generally eat your thinnings, especially from greens and lettuces.

To me this is the least fun part of vegetable gardening. But this year, when I forced myself to really thin correctly, I was rewarded with the best carrot crop ever. It was definitely worth it!

## Master Gardeners Certificates and Rewards

by Amy Grandpre

Below is a list of Master Gardeners who have gotten their Certification or Hour reward.

### Level 1 Shirt & Certificate

Casey Dolph  
Diane Kersten  
JoAnne Bylsma  
Melissa Bertolino  
Suri Lunde

### Level 2 Shirt & Certificate

Becky Buckley  
Connie Aaberg  
Les Aaberg

### \$50 for 600 Volunteer Hours

Bob Wicks

### \$75 for 800 Volunteer Hours

Elaine Allard

### \$125 for 1400 Volunteer Hours

Joann Glasser

### Pin Rewards for 200 Volunteer Hours

Brian Godfrey  
Ron Hendricks  
Sherry Doty

### \$25 for 400 Volunteer Hours

Jerry Dalton  
Rick Shotwell



# Volunteer Program at the Zoo

by Suri Lunde

For more than two decades on Monday mornings from early Spring to late Fall, Master Gardeners have been tending various gardens at ZooMontana as part of the Master Gardener Program where participants volunteer time in horticultural related community activity to earn certifications or maintain good standing. For more information on volunteering at the Zoo, please call Amy Grandpre at 406.256.2828 or email her at [agrandpre@co.yellowstone.mt.gov](mailto:agrandpre@co.yellowstone.mt.gov)

## SENSORY GARDEN

This garden was the vision of Jane Reger. She was inspired by her husband who was losing his eyesight. She started a by-invitation-only horticulture committee in 1991 to create an educational garden to appeal to all the senses (sight, taste, smell, and texture). Starting with a flat plot of land which was dug six feet deep to form berms and memorial plants donated by visitors and supporters, the garden was (and still is) tended by volunteers from various local garden clubs and Master Gardeners. The garden now is filled with colorful flowers, plants, trees, a waterfall, and a fountain, and is a popular spot for picnics and weddings.

**Julie Halverson**, a Master Gardener since 1994 and a member of Sow and Grow Garden Club, has been volunteering at the Sensory Garden since its inception. She worked with Jane and Dwayne Bondy, a botanist/horticulturist at the zoo who designed the masterplan for the garden. Julie said Jane would be so proud of how the Sensory Garden vision has been realized and how it has blossomed.



Julie Halverson

Working together with other Master Gardener volunteers throughout the years, Julie observes, "Maintenance is always an issue. There is a constant need of regular volunteers to maintain the gardens throughout the season. Too many Master Gardener volunteers come to fulfill their required hours to get certified and stop after that."

As a testament to how much Julie's generous contribution to the garden is appreciated, a Quick Fire hydrangea was planted on the south berm by the Yellowstone County Master Gardener Association in her honor when she was stricken with cancer a few years back. You can almost always find Julie at the Sensory Garden on Monday mornings.



Some of our Master Gardeners volunteers at the Zoo

## CREVICE GARDEN

Located between the children's playground and the bald eagle aerie, this garden became the latest creation at the Zoo's grounds in September. Claimed to be Montana's first proper crevice garden, it is spearheaded by **Sharon Wetsch** and **Teresa Bessette**. The crevice garden idea came to Sharon at a garden conference she attended and she shared the vision with Teresa who procured the plants through 'Plant Select' in Fort Collins, CO at Colorado State University.

Crevice gardening is a technique of gardening where small hardy plants from the mountains or high elevations are tucked between closely-spaced rocks to create miniature landscapes. Flat stones are partially pushed down into the soil vertically to create narrow channels that provide excellent drainage and help move moisture more deeply into the soil while keeping the soil around the plant crown dry so that they become drought tolerant.

The design of the garden utilizes flat stones repurposed from other projects at the zoo and driftwood collected from the Pryor Mountains by volunteers. The garden focuses on native plants and their viability to be grown locally such as cosmos, daisies, ice plants, wildflowers, sedums, and succulents.

*continued on page 7*



Sharon Wetsch (in orange top) and Teresa Bessette

## VOLUNTEER PROGRAM *continued from page 6*



### CHILDREN'S GARDEN

This garden has been tended single-handedly by **Teresa Bessette** for the past seven years. Each year Teresa plants flowers of interest specifically for children (unique color, shape, texture), adds whimsical garden ornaments, swaps decorations according to the season, and builds colorful bird houses which she hangs from the oak tree. Originally, the site had a pond (the elephant statue is a holdover from it) and a few trees. Upon seeing the large tortoise, zebra, monkey, and giraffe statues also in the area, she decided to convert the area into a Children's Garden. She has since created a charming fun garden consisting of a central berm with a featured design that changes every year and five planting beds with numerous colorful flowering perennials, annuals, grasses, shrubs, and trees, amidst benches and stone seatings for children and adults to enjoy.



### FLAG GARDEN

This garden is located on a slope at the main entrance of ZooMontana and was adopted by the Shining Mountain Chapter of Daughter of American Revolution (DAR) in 2015.

**Fay Danielsen**, a member of the DAR, finds tending the Flag Garden personally meaningful. She

became a Master Gardener in 2016. Appropriately, the garden focuses on a patriotic red, white, and blue color theme throughout the season with annuals and perennials like geraniums, salvia, daisies, and roses. A couple of issues

that the garden is facing due to its location: making sure it gets enough water especially on hot days and gophers.

### HOMESTEAD GARDEN

In 2018, a trio of volunteers, **Beth Adams**, **Sherri Porter** and **Lisa Salisinski**, adopted this garden as their own. Located by the Homestead House and Homestead Barn, the garden has been neglected and overrun by grass and weeds. The ladies weeded the area underneath and around the catalpa tree and planted heirloom flowers and perennials that grow well in the shade. In addition to clearing the path along the garden shed and the sidewalk towards the rabbit hutch and chicken coop, they also weeded and edged the south and west parts of the koi pond and took on watering the potted plants by the Homestead School House entry.



### CHRIS'S GARDEN

Just outside the Visitor Center doors is a garden previously known as the Triangle Garden. It is now called Chris's Garden, in honor of Chris Chauvin, who volunteered in the

Sensory Garden for many years until she passed away in 2017. A bird's nest spruce is planted and a plaque installed within the garden in memory of her. The area showcases multitudinous daffodils and tulips in the Spring. Various Master Gardeners tend this garden and are revamping the area around the memorial Norway Maple to make it appealing all year round and yet accommodate the Zoo's resident peacocks that rest there.



### 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.

[www.YellowstoneMasterGardenerNewsletter.wordpress.com](http://www.YellowstoneMasterGardenerNewsletter.wordpress.com)



# Winter and Beyond: Scale, Spider Mites, Whitefly, and Aphids

by Ann McKean

Although I feel no affection for this topic, many gardeners (myself included) struggle with scale, spider mites, whitefly, and aphids outdoors in the summer season and indoors in the winter. I thought some basic information, emphasis on *basic*, on these insect pests would be welcome.

The many species of **scale** which feed on all types of plants is categorized into two groups: armored (hard) and soft. Females lay eggs beneath their bodies which usually hatch within a one- to three-week period. The newly hatched pin tip sized crawlers are mobile and move to other fresh areas on the plant for feeding.

When the hard-bodied type females select a spot and insert their mouth parts into the plant to suck on the sap, they are no longer mobile and gradually build up a hard outer shell which is often undetected and difficult to treat. Adult males have wings and they look like small gnats. On indoor plants, there may be several generations per year. Their presence is often first detected by the shiny dots of honeydew they excrete, followed by damage to the host plant which manifests in yellowing leaves. Look for them on the undersides of leaves or along the branches. If left untreated, they can severely weaken the plant, sometimes to the point of death. As there are many types of scale, keep an eye outside too because they can be a serious problem in the garden on trees and shrubs.

**Mealybugs** are a soft-bodied member of the scale family. They produce multiple overlapping generations of fluffy white insects which often prefer softer tender growth and can be controlled with the same methods used for the other pests in this article.

**Spider mites** are not true insects but are classed as arachnids, which are eight-legged animals such as ticks, scorpions, and spiders. Spider mites are tiny and are usually detected by their tiny webbing and the yellowing leaves of their host plants. They are extremely prolific indoors and out and should not be ignored if they are spotted. Since they prefer hot dry conditions and the accompanying dust, the humidity of a water hose or a mister is highly recommended.

**Whitefly**, another sucking insect, have developed some resistance to many synthetic pesticides. Whitefly adults

look like tiny white moths and can rise in clouds when disturbed. They also have a crawler nymph stage, during which they are almost invisible. The full whitefly lifecycle is only 25 days and as their population grows, they cause yellowing, desiccation, and leaf curl on the host plant. They can also spread several plant viruses and generally weaken the health of their hosts. As with many other sucking insects, they deposit sugary honeydew which attract ants and can host black sooty mold. Yellow sticky traps made for whitefly are helpful for monitoring and can mildly suppress the adults.

**Aphids** are small soft-bodied insects that may be green, red, grey or even black depending on their food source and species. They are usually but not always, wingless. Instead of laying eggs, they have live birth and prolifically breed many generations per year. They deposit copious amounts of honeydew and are sometimes guarded by ants who harvest the sugary honeydew. You may also notice leaf curl or yellowing leaves, stunting (think snowball bush or your favorite plum tree in the spring), and general lack of vigor in their host plants. Some types of aphids attack the roots of plants. Along with other types of insects, aphids can also cause plant gall and other deformities. Once you have the pest under control, the damage should not continue. However, the already-damaged leaves will not fully recover. Aphids are attracted to plants with high nitrogen levels and fresh tender leaves, so don't overfertilize and keep a sharp eye on new growth in the spring.

**Fungus gnats** are another pest that can thrive on winter houseplants. Unlike most pests, they damage plant roots and require a different treatment to get rid of them. Preferring to lay their eggs in soft moist soil, the best defense is to let the top two inches of soil get dry between watering. A layer of sand on top of the soil also makes for an inhospitable nursery. Yellow sticky traps can help put a dent in the adult populations.

The following practical controls for scale, spider mites, whitefly, and aphids can be used outdoors and indoors:

Nature has her own methods for staying in balance, so aim for good health and the least intervention necessary.

*continued on page 9*





## WINTER AND BEYOND: SCALE, SPIDER MITES, WHITEFLY, AND APHIDS *continued from page 8*

Natural predators to these pests include parasitic wasps, lady bugs, lace wings, other insects, and even birds. Healthy plants are often able to repel or at least ride out insect pest infestations. For this reason, water your plants regularly and feed as they require it.

I always begin my battles with water. Often a good spray with the hose (or the shower) is very effective and a safe opening salvo. Remove badly infested areas of the plants and remove as many of the remaining insects as you can by squishing them and then washing them off again. A quality mister is a good friend for indoor plants, especially if spider mites are a problem.

Take a few minutes to water the roots of plants that may be new or young or in unsheltered parts of the yard that receive a lot of sun and drying wind. If there is no snow cover, it could mean the difference between survival and death, especially if the plants have been weakened by harsh weather and untreated pests.

If an indoor plant is small enough for you to reach all of it, it is often effective to remove the visible pests by hand and wipe the leaves and stems firmly with a damp rag or a makeup sponge soaked with alcohol. Or simply squish the pests one by one while wearing an evil grin, then rinse if possible, and continue with stronger treatments only if necessary. It is best to prune out densely infested areas and immediately dispose of them.

To combat pests during the outdoor growing season, it is always best to start without chemicals to avoid damaging the many beneficial insects which will be attracted to your pests. Sometimes you can even purchase those beneficial insects.

If you had trouble with scale, spider mites, or aphids this past summer outdoors in your garden, a good next step this winter would be to spray your plants with horticultural oil in late winter or early spring before bud break, being careful to cover all stalks and stems. Horticultural oil works by smothering the overwintering insects and eggs. It is safe to use on most outdoor and many indoor plants but you must cover the whole plant surface whether indoors or out.

The use of insecticide should be carefully considered, and the safest products tried first. There are some new organic

insecticides on the market containing citrus oil which are very safe. The next line of defense which can be used indoors or out is an insecticidal soap such as Safer Soap. After removing what insects you can, a dose of insecticidal soap followed by a light treatment of horticultural oil is helpful. The soap is more effective on the crawler stages of scale while the oil which smothers the pests is effective on all stages.

The chemical azadirachtin which is derived from neem oil is potent on insects including scale, spider mites, white fly, and aphids, if absolutely necessary. A botanical pesticide, it is safe for organic production and can be applied up until the time of harvest if used on food products. It leaves no residue, can be used on indoor or outdoor plants, and is safe for bees.

If you feel the need to use chemicals to eradicate scales in your trees or shrubs outdoors, make sure you research the right time of the season in which to do it, and cover all the surfaces of the plant, keeping in mind that pesticides are most effective on the crawler stage of scale. The Morton Arboretum has a helpful schedule for treatment (<http://www.mortonarb.org/trees-plants/tree-and-plant-advice/help-pests>).

Always be observant, vigilant, and read and follow directions of any chemicals if you must use them. Even organic, botanical pesticides can be harmful if not used correctly. As Master Gardeners, we have been taught the principles of Integrated Pest Management, so it is a good idea to review them annually and follow them as closely as possible.

Feel free to contact me or any Master Gardener with questions we might be able to answer. Please continue to tap into the vast source of knowledge that we, Master Gardeners, have and love to share. Here's to another happy, healthy, and productive year in your gardens!

### USEFUL LINKS

<https://www.planetnatural.com/pest-problem-solver/houseplant-pests>

<https://www.thespruce.com/how-to-get-rid-of-scale-insects-1402693>

<http://msuextension.org/broadwater/blog-article.html?id=17791>

<https://hortnews.extension.iastate.edu/scale-insects>

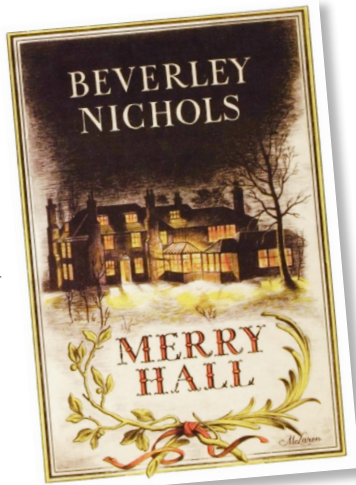


## Merry Hall by Beverley Nichols

In the depths of winter when the green and growing garden is covered by a blanket of snow, the heart of a gardener can wither away. This is the time to pick up a book like Beverley Nichols's *Merry Hall*. The book chronicles the British author's search for the perfect garden and the perfect house. More specifically, he wants a Georgian house and a garden of at least five acre: "a garden riddled with brambles, stung almost to death with nettles, and eaten to the bone with blight... I was in a rescuing mood."

He finds the ideal place early in the book and *Merry Hall* describes his initial forays into rescuing and restoring the house, and especially the gardens. The book is written in the aftermath of World War II in a style reminiscent of Oscar Wilde, E.F. Benson, and Jane Austen. Deliciously witty, Nichols delves indiscriminately into horticulture, his talented and taciturn gardener (Oldfield), cats and more cats, nosy neighbors (Miss Emily and Our Rose), garden aesthetics, music, and more. But his first love is the garden and the book hones in on all things gardening. Nichols frequently rhapsodizes about the beauty of a blossom, warning the reader "when I begin to write about flowers, I lose all sense of restraint, and it is far, far too late to do anything about it."

With every reading and re-reading, *Merry Hall* keeps me simultaneously laughing and in awe of Nichols' turn of phrase and ability to cut to the heart of the matter,



**"There is no sweeter tonic for the green thumb under cold weather oppression."**

~ Carlie in Goodreads

whether it is commentary on a passive-aggressive spinster or falling in love with a bank of *Lilium regale*. The story wends its way through the pages in an organic and enticing manner. Nichols cautions the readers that *Merry Hall* "is not really a book at all; it is only a long walk round a garden, in winter and summer, in rain and in sunshine; and if it bores you to walk round gardens you will have long ago chucked it aside."

The book is meant for slow reading where each page is savored and the story visualized, absorbed, and chuckled over. It's best read with a notepad close by so you can write down unfamiliar plant names and references for later research. It can take some work to adjust to the style as the setting is quintessentially British and the world it inhabits is from almost 70 years ago. But it is worth the effort. So I encourage you to settle down with the book – preferably in a comfortable chair, by a crackling fire, and with your favorite drink

– and enter the entertaining, insightful, and somewhat cynical world of Beverley Nichols.

Note: Beverley Nichols was a prolific writer in a career spanning 60 years. Best remembered for his gardening books, his most popular is *Down The Garden Path*, which has been in nearly continuous print since 1932. *Merry Hall* is the first book of the Merry Hall trilogy. If you like it, the next book, *Laughter On The Stairs*, shifts the focus to restoring the 22-room mansion amidst life in the village. The final book, *Sunlight on the Lawn*, brings more stories of the house, garden, friends, and neighbors. All of the books are available on Amazon. Regrettably, they are not available at the Billings Public Library. I'll remedy that if I find some spare funds.

## Useful Online Links



### MASTER GARDENER

#### Yard and Garden MontGuides

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

#### Submission of Samples

[http://diagnostics.montana.edu/physical\\_sample\\_submission.html](http://diagnostics.montana.edu/physical_sample_submission.html)

#### Montana State Master Gardener Facebook

<http://www.facebook.com/MTMastergardener>

#### Yellowstone MG Newsletter Blog

[www.yellowstonemastergardenernewsletter.wordpress.com](http://www.yellowstonemastergardenernewsletter.wordpress.com)



### Ask An Expert

<https://www.msueextension.org/>

### Yellowstone MG Newsletter Submissions

[ymastergardener@gmail.com](mailto:ymastergardener@gmail.com)

### Amy's Yearly Grapevine News

[http://msueextension.org/yellowstone/horticulture/garden\\_grapvine.html](http://msueextension.org/yellowstone/horticulture/garden_grapvine.html)

### YELLOWSTONE COUNTY MASTER GARDENER ASSOCIATION

**Facebook** <https://www.facebook.com/ycmg>

**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/>

# Master Gardener Moss Mansion Christmas Party

by Amy Grandpre

The 2018 Master Gardener Moss Mansion Christmas party was our best one yet!

Thankfully the weather was beautiful... with no icy roads or even snow to contend with. We had the largest turnout of about 85 Master Gardeners and guests attending.

It was truly extra special to have the Billings Big Sky Chorus do their delightful singing as we gathered around stairway of the Moss to take it all in. Thanks so much to Master Gardener Roy Wahl for making this happen.



The Yellowstone County Master Gardeners Christmas Tree

And of course the Christmas tree competition was in full swing, with our Master Gardeners entering their most beautiful tree this year.

Special thanks to Sharon Wetsch (master cook), Brian Godfrey (master jack-of-all-trades) and everyone else (and I know there were so many) who put this event together. It's indeed a blessing to have such a great team pulling together... and it's just these types of events that prove your dedication and support of our program.

Couldn't do it without you!

Now on to a New Year and more fun adventures, I'm sure.



## Wishing Everyone a Happy New Year 2019!

### NEWSLETTER EDITORS

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### 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.