



Cover Artwork by Pam Conklin

A word about Minnehaha County Master Gardeners: We are volunteers trained through the South Dakota State University Extension [Master Gardener Program](#). For more information on becoming a master gardener, visit [SDSU Extension Master gardener volunteer program](#)

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In the Herb Garden

By Priscilla Jurkovich, Master Gardener

The herb section will highlight an herb that can be grown in the South Dakota region.

Black Cohosh (*Actaea racemosa*) is a perennial herb native to forests and a member of the Ranunculaceae or buttercup family. The plant can grow to 5 to 7 feet and spread over 2-3 feet. Native to forests, black cohosh prefers shade to partial shade and well drained, moist soil. The tiny star-shaped white, fragrant flowers bloom in a spike-like structure early in the summer. The leaves are long and broad forming sets of 3 coarsely toothed leaflets. If growing the plant from seed, the seeds must be stratified (exposed to 70 degrees F for 2 weeks then 40 degrees F for 3 months) to stimulate germination. Commonly referred to as bugbane as it has an unpleasant odor which repels some insects.



Native Americans once used growing black cohosh plants roots and rhizomes for snake bites to gynecological conditions. Other medical remedies were to reduce fevers, menstrual cramping, treating sore throats, bronchitis, hot flashes, night sweats and arthritis pain.

Bug Bites

by Pam Conklin, Master Gardener

Insects! They are tiny, creepy-crawly, digging, biting, disgusting, yet, beneficial; without them, life as we know it would not exist.

This is the story of ants, from the family Formicidae. They belong to the order, Hymenoptera, making them related to wasps and bees. Ants have existed on earth for



over 100 million years. Around 12,000+ different species exist in the world, and at least 61 species can be found throughout South Dakota. Sixty-one species may not sound too impressive, until you consider a story NPR ran stating that there are a staggering 2.5 million ants per 1 human on earth.

We have been at war with ants for as long as I am aware. They create protruding mounds in lawns, intrude in our picnics, invade our kitchens,, some even bite us, and others set up residence in rotting trees, or the siding on our houses. We are efficient at eliminating ants from our houses, whether it be through traps, insecticide, or immaculate housekeeping. One thing is true, ants may be tiny, but they are formidable. They are also highly intelligent and organized. And, although it may not seem like it, ants are also very beneficial to our world.

Ecologically, ants play an important role in aerating the soil by creating underground networks of tunnels that allow for more oxygen, water and nutrients to get to plant roots. They are also instrumental in plant seed distribution when they carry seeds to their nests for food, some of those seeds germinate. They also love eating decaying plants and animals, thus assisting in the breakdown of organic material and adding essential nutrients back to soil. They feed on the sap-like residue, called honeydew, left by aphids, and may even protect the Hemiptera from predators. But more importantly, ants prey on some insects, like termites. Ants are an important dietary staple to many species of spiders, amphibians, birds, and other animals. We don't have any carnivorous plants in South Dakota, but if we did, they would dine on ants.

Ant colonies are difficult to remove. To remove ant colonies, the queen must be removed. You can try to locate a queen by lifting rotting tree branches, rocks, and landscaping edging. The queen is much larger than the rest of the ant colony. If you do find her and remove/destroy her, the entire colony will die. Digging for colonies is not a fruitful prospect. The tunnels can be very deep underground, or extend several feet beyond your property. Dumping pesticides may kill only a few of the ants in a colony that happen to come into direct contact with the chemical. The same is true of trying to kill them by drowning the ground with boiling water. What you are accomplishing when utilizing these tactics is disrupting or even destroying much of the healthy soil biome in your yard. So, it is better to just manage ants that find their way into your house and leave the rest to nature.



Sources:

<https://harvardforest.fas.harvard.edu/ants/about-ants>

<https://extension.umn.edu/insects-infest-homes/carpenter-ants#what-they-eat-104760>

<https://www.npr.org/2022/09/21/1124216118/ants-number-study-quadrillion#:~:text=For%20every%20human%20on%20Earth,or%2020%20quadrillion%20in%20total.>

Garden Journals: Applying Scientific Method to Your Backyard

By JoAnn Christensen, Master Gardener

Journaling has never been one of my favorite things to do. Someday, my kids will have to rely on oral history to remember what their father did. In gardening, however, journaling is becoming more and more common, and more and more necessary. For many people, a garden journal is a past-time and an opportunity to create art, to record wildlife that visits the garden, and so forth. This past-time, however, is the beginning of the application of the scientific method to a personal garden. For a master gardener, it is an opportunity to learn from our past and to assist our neighbors in preparing for their future.

Let's start with turning the past-time into basic science. Recording the wildlife allows you to record the conditions in which certain wildlife appear. Consider: "bees came to my garden when my strawflowers bloomed." So, now I know that strawflowers attract bees. Very, very basic method.

But let's add to that. Let's include more conditions. "On June 22, it was 65 degrees. The strawflowers opened, but the bees weren't coming to the strawflowers, but they were all over the echinacea. On June 23, however, it was 80 degrees and the bees were out on both flowers." So, now I know that temperature affects bees, not just what flower is out. I also know that some flowers are stronger attractants to bees than others.

A garden journal also helps with garden planning. Planning out your garden by drawings allows you to work with companion planting. Maintaining journals year over year allows you also to rotate your planting, which is important even in a personal garden.

Garden journals are great for measuring and budgeting expenses. North Dakota State University has a great example of tracking capital expenses in your garden; for instance, purchasing a tiller.

Example:

Purchase price of tiller: \$2,000

Lifespan: 20 years

$$\frac{\$2,000}{20 \text{ years}} = \$100 \text{ per year}$$

NDSU uses this as an amortization chart; however, it can also help you decide if buying a tiller is worthwhile. For instance, amortized, a tiller will cost you \$100 per year over 20 years. I, however, spend about \$45 per year to rent a tiller, including gas. So, purchasing a tiller is not a sound expense for me. Working out the math in my garden journal helps me see this and helps me remember it down the road.

In the same vein, tracking costs in your garden journal will also help you know what and how much to plant to make it worth your while. For most of us, it is impossible to put monetary value on our garden space. A new gardener, however, can see how many pounds of tomatoes to expect from one plant. They then can track how much it

will cost to preserve those tomatoes. If they start by freezing the tomatoes, the start-up cost is minimal.

Garden journals can also help a gardener track soil conditions, air and soil temperatures, yield, infestations and attempts to control pests. North Carolina State University has an excellent downloadable journal that leans more toward this style of journaling.

Recently, our master gardener chapter was introduced to testing new seeds for field trials. Journals for trials are essential, whether they are for a university or company, or for your own use. Every year, I try a new “crop” — something I haven’t grown before but want to try. I track my results to know if it is worth it to grow the following year. For instance, I have learned that turtle beans do extremely well at the Leader’s Park garden, but they do not do well at Fall’s Park. Eggplant, on the other hand, is the exact opposite. The soil and conditions between the garden plots are sufficient to affect my production of these two vegetables.

There are many reasons to have a garden journal, and to reference it year to year. Use for yourself and teach those around you how to use one, too!

Sources:

https://workspaces.ndsu.edu/fileadmin/4h/Projects/CGG095_Garden_Journal.pdf

<https://extensiongardener.ces.ncsu.edu/2020/01/journal-2020-winter-piedmont-news/>

Spring Cleanup with Pollinators in Mind

By Pam Conklin, Master Gardener

It’s been a long, cold and snow-filled winter. Everyone is restless and ready to get out in their gardens and yards — present company included. I’m seeing a lot of homeowners already raking and removing last season’s plant material. This spring has been all over the weather map. Snow, rain, freezing temperatures, and intermittent highs in the 80s and 90s have surely fueled our spring fever. All gardeners work around the weather, and who can fault anyone for getting a jump on spring cleanup?



What if

we change our focus from our timeline to that of the native wildlife around us? How does that change the urgency to complete spring cleanup? In defense of native pollinators, it is still too soon for spring clean up. By removing leaves and twigs and stems from last season's plants, we are potentially removing, or interrupting necessary cycles of the still hibernating pollinators and other insects that seek cover from inclement weather, as well those animals that depend on insects for food. [Xerces, in one of their blogs](#) says it best: "Chrysalides still cling to last season's dried standing plant material. While you may begin to see bumble bees and ground-nesting bees emerge as flowering trees and shrubs burst into bloom, they still need cover during chilly nights and heavy spring showers. While mining bees, mason bees, carpenter bees, and bumble bees may be out and about by early April, other species such as sweat bees are still hiding out, waiting for the warmer days that arrive in May. Meanwhile, last year's leaf litter is still providing protection for both plants and invertebrates against late-season frosts." Knowing that there is such an abundance of life hidden in and under all of the organic remnants of last year is a compelling reason to wait. So, when should we start cleanup? To reduce impact to pollinators and other wildlife, nature provides clues to help us answer this question.

Although the last frost date in the Sioux Falls area is usually cited as May 3, all gardeners know there's always the risk of a later freeze in May. Therefore, a better indicator for when it's safe to proceed with spring clean up, per Xerces, is asking if it's safe to plant tomatoes [or other temperature-sensitive plants]. One of the best indicators, however, is to wait until apple (crabapple included) and pear trees have completed their bloom cycle. If you don't have any of these trees in your yard, take a walk around your neighborhood and notice any flowering trees. Be patient and keep watching for these signs from nature, and know that by delaying spring cleanup, you are helping pollinators, and other wildlife survive.

"Adopt the pace of nature: her secret is patience." - Ralph Waldo Emerson

Not Your Average Flower Story

by JoAnn Christensen, Master Gardener

Plant lovers own a lot of things to make beautiful gardens, lawns, and floral designs. The challenge is to find those treasured items when you want them. During the holidays, we need embellishments for our outdoor pots or indoor floral arrangements. In the spring and summer, we need our pots for planting. In addition, vases come in handy for floral designs for special events or to brighten someone's day.

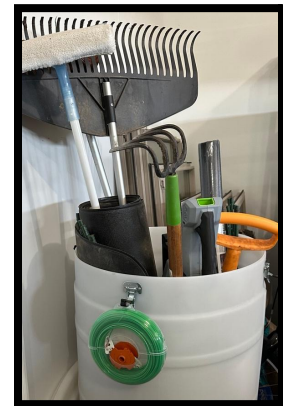
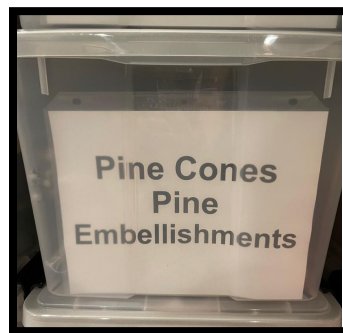
Each fall our outdoor pots are emptied, sanitized, and stored for the winter. They can be racked or placed in a safe place to avoid winter damage, especially if they are ceramic. Garden tools like rakes and hoes can be hung on hooks. Turn your garage into efficient use of space. Know where everything is located so you can get to it when you need it.

Getting organized is a personal priority. Sometimes, we need to downsize and get rid of things we don't use. Sometimes, we need additional space because of a change of interests. The hard part is deciding what things to keep and what things to let go. Letting go may be giving something to someone who wants what you don't need. Maybe have a garden party and instead of bringing dessert, bring an unwanted garden item and trade for something you need? Labeling is key and dividing things up into a logical order is even more critical. Totes and boxes get heavy as we age. Likewise, garages and sheds are dark and dingy so labels need to be large. As we age, things get harder to see.

There is no right or wrong way to get organized. It's what works for you. It is helpful to start with a plan for how you want to organize your items. If you can't empty out your entire garage, start with a section at a time. I have a large barrel for potting soil, fertilizer and other larger bags of garden items. I keep a tote for all of the small containers of soil amendments and other items like liquid fence, gypsum, iron supplements and bone meal. It keeps them off the floor and from spilling. I keep big clips nearby to keep the containers rolled up and closed. I have a tote for drip hoses and garden hoses stored for winter. Likewise, Christmas lights and solar lights are kept in totes. Electrical cords can be located in another tote. It is important to check them periodically and get rid of items that no longer work. If you label your holiday totes it makes it easier to put your things back where you found them.

Keep a box for ongoing donations. A good way to get rid of things is to give those items to people who need what you have in your possession. Garage sales are great but these items take up space. I like to sell things online and although it takes time, eventually things get sold. You can always post things on social media among friends if you want to give something away. If you have unique pots you want to get rid of, make a summer container for upcoming Mother's Day, birthdays, or other special events. Clean the pots thoroughly and sanitize them with a bleach solution or spray disinfectant before storing them.

Here are some ideas!



Bonus handout!

Late in March, each year, Minnehaha Master Gardeners host a one day Spring Event packed full of experts presenting relevant horticultural topics. During breaks, master gardeners offer table talks to pass along practical “how to” information. One of those table talks featured seed starting methods by Debi Ulrey-Crosby, Master Gardener. [Check it out!](#)

Local Master Gardener Hosted Events!



Do you have comments, questions, or topic ideas that you would like us to explore? Email us at mcmgnewsletter@gmail.com. We would love to hear from you!

All articles are researched and written by Minnehaha County Master Gardeners and Interns. Thank you to all, for sharing your knowledge!