



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.

Spearmint (*Mentha Spicata*) is an aromatic herb in the Lamiaceae (mint) family characteristic of square stems and opposite leaves. It is a perennial plant in zone 4-11. Spearmint grows between 12 and 39 inches in height. Thrives in a sunny area but can thrive in any soil type. The flowers have slender spikes. The plants attract beneficial insects and pollinators for the garden. Spearmint plants can be grown from seeds by direct sowing 1/4 inch depth or by stem cuttings.

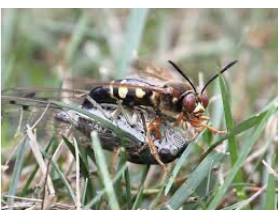
Spearmint is a common flavoring in toothpaste, mints and teas. The leaves and oils are used to treat digestive disorders, indigestion, gallstones as well as headaches, toothaches, sore throats and colds.



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 *Sphecius speciosus*, an ominous wasp that grows so big (1.5 - 2 inches) and so scary that people often run screaming when they see her. But, as far as wasps go, the Cicada Killer is more like a docile giant, attacking only cicadas.

Cicada Killer with cicada

Cicada Killers overwinter as larvae, cocooned 6 - 10 inches underground, in chambers dug by their mother. In June, they emerge as adult wasps. The males may act aggressive, but have no stingers. Females do have stingers, but usually used only for paralyzing their prey, the cicada. The ecological importance of the cicada and wasp relationship is twofold. The cicada is important as the only host for which the female wasp deposits a single egg. After the egg is planted in the paralyzed cicada, the wasp will bury it in one of the chambers it dug out. The egg hatches in a couple of days and the larvae devours the cicada before spinning a cocoon where it overwinters. The wasp, on the other hand, helps control the cicada population, and keep tree damage to a minimum.

Cicada Killers are solitary wasps. They are seldom a threat to humans, pets, or other wildlife. They are among the beneficial insects. They are natural predators and pollinators. The biggest threat they may pose to us is that they nest in our lawns. They prefer to dig in areas containing less vegetation. As long as they dig in less visited areas, why not leave them to it? But if you do find Cicada Killers digging in your lawn, consider over-seeding, fertilizing and watering your lawn to encourage fuller vegetation, or add mulch. According to SDSU Extension, managing these wasps is that simple.



Sources:

<https://extension.sdstate.edu/cicada-killer-wasps-are-active-south-dakota>

<https://www.si.edu/spotlight/buginfo/cicada-killer-wasps>

<https://www.cicadamania.com/cicadas/10-facts-about-cicada-killer-wasps/>

<https://lancaster.unl.edu/pest/resources/cicadkillerwasp.shtml>

Drought: How do Plants Adapt?

By Carla Goetsch, Master Gardener

Here we are in yet another dry year. Plants make several adaptations to try to survive when there is a lack of water. They expand their root system to help them access more groundwater. Plants “breathe” or respire through their leaves by tiny adjustable openings in the leaves called stomata. The stomata enable carbon dioxide to enter for photosynthesis. But water vapor can also exit the leaves through the stomata, contributing to the plant drying out. Stomata can shut down the flow of moisture to leaves, sacrificing some of the leaves and plant growth to keep itself alive. Therefore, plants don’t grow as tall, or full in dry years.

You may notice a plant wilt during the day due to photosynthesis slowing down during hotter periods of time, when the most water can be lost. You may also notice the plant recovering later in the evening, even without being watered. Some plants may completely shed their leaves during drought conditions. Some varieties of plants have adapted to dry conditions.



Succulents have a waxy layer that cuts down the amount of moisture leaving the plant. Plants that live in dry conditions have evolved smaller leaves or spiky thorns, such as cactus. Another basic rule is that the fewer the leaves, the less water is lost through transpiration (the evaporation of water from plants). In wet springs, a plant may produce many leaves, but if summer becomes dry, you may notice significant leaf

drop. Another clever adaptation is for plants to produce more seeds. The seeds survive dry spells and can germinate when moisture is available again.

Plant scientists have had some success developing drought-resistant crops. They were produced mainly by selecting and breeding individual plants that survived well under drought conditions. Looking at the challenges we may face in the future, genetically modified plants are starting to be the focus of producing drought-resistant crops.

Resources: [How Do Plants Deal with Dry Days? · Frontiers for Young Minds \(frontiersin.org\)](https://www.frontiersin.org/articles/10.3389/fpsyg.2019.01611/full)

Winter Plants Indoors

By Jason Cruse, Master Gardener

It may not feel like it yet, but soon it will be time to make a major decision with your potted plants: do I bring them inside for the winter? If so, what do I do? If not, how do I keep them?

For potted plants, according to the University of Illinois, the best option is to bring the potted plants indoors. Perennials need to go dormant, so look for a place that is between 20 and 45 degrees. Consider a protected shed or unheated garage. A basement may be too warm, unless you are bringing a houseplant indoors (a completely different discussion).

If you are going to keep your potted plants outside, then consider digging holes for your pots to protect them. Potted soil is much colder than ground soil—as much as 2 zones colder—when not protected by either putting the pot in the ground or mulching around the pot. That means for us, plan your potted perennials for zone 2! It may be easier to bring them inside rather than finding zone 2 hardy potted plants.

If you are burying your pots, be sure to do this after the plant goes dormant but before the soil freezes. According to Iowa State University, there is usually a 3+ week window in the fall when you can do this. Plants may need some water in the fall, but will not need watering over the winter after soil freezes.

Mulching and grouping is a good plan if you're not going to bury your pots. Avoid using artificial products—like Styrofoam—as they may raise the temperature of plants too

much and cause them to break their dormancy early. Use straw, leaves and mulch to protect your plants.

If you are bringing your plants indoors, be sure to thoroughly check them over first. Check the plants over for bugs! Pennsylvania State University recommends holding a piece of white paper under plant leaves and tapping the leaf to see if anything falls off or flies away. Pots should be quarantined from other houseplants for a week, or two to ensure they are pest free. You can speed up the process by washing the plants and checking the soil. The University of Minnesota recommends a mild solution of dish soap and warm (not hot!) water. Wash the tops and undersides of leaves. Be sure to get some soapy water into the soil to kill pests there as well.

Be prepared to repot your plants. Being out in the sun, growth, and frequent watering can drain the soil of nutrients. White mold can develop on the surface of your potting soil. Consider repotting with fresh soil and perhaps a larger pot.

¹<https://extension.illinois.edu/blogs/good-growing/2020-11-18-overwintering-potted-plants>

²<https://hortnews.extension.iastate.edu/overwintering-unplanted-trees-shrubs-and-perennials>

³<https://extension.psu.edu/bringing-houseplants-indoors>

⁴<https://extension.umn.edu/yard-and-garden-news/bringing-houseplants-back-inside>

Chiggers: One of the few reasons to wish for winter

By Carla Goetsch, Master Gardener

Chigger bites can be one of the most itchy, painful insect encounters you experience. Chiggers live toward the top end of grass blades and attach to your clothes and shoes. They tend to migrate to sites on your body to where the clothing is tight, such as under the shoestrings, sock elastic line, bra lines, waistbands, or skin folds. Often you will see several bites in one location. Chiggers are a species of mite and are a close relative to spiders and ticks. They are so small that they are almost invisible to the naked eye. They sense our body heat and carbon dioxide and latch onto our clothing before moving to our skin. Our skin (not blood) is their food source. They have a short pincher

mouth and stay attached to the skin to feed. It secretes enzymes into your skin to break it down. They feed for a few hours to maybe a couple of days.

Treatment: Take a cold shower or bath. You may also use calamine lotion, or corticosteroid creams to control the itching. Oral antihistamines such as diphenhydramine may also be used. The chigger bite does not cause serious complications, but the itching may cause bacterial infection of the skin. At least chiggers do not carry any diseases like ticks, or mosquitos.

Prevention: Chiggers do not bite when the temperature is below 60 degrees or above 99 degrees. Proper clothing such as long-sleeved shirts/pants, as well as thick socks/shoes can help prevent infestation. The pants legs should be tucked into shoes/boots if possible. Clothing should be changed as soon as coming indoors. Applying DEET insect repellents to clothing and skin may also help repel chiggers.

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!