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In the spring, at the end of the day, you should smell like dirt.

-Margaret Atwood

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# May Events:

Due to COVID-19 restrictions, the Spring Plant Sale hosted by the Minnehaha County Master Gardeners has, regrettably, been *cancelled*.



*Just a note for your consideration: The bees are already flying and looking to forage! This Spring, consider leaving a few dandelions and clover in your lawn for them.*

# 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.

Ashwagandha (*Withania somnifera*) is an herb in the Solanaceae (Nightshade) family, which also includes tomatoes, tomatillos and potatoes. It has solitary, bisexual, regular flowers and often flowers at night. Ashwagandha is an annual plant in zone 4 (perennial in no frost areas and native to India). It is a low growing, upright shrub with star shaped branches growing to 12-30 inches. Ashwagandha stems are covered with fine, densely matted wooly hairs called tomentose. The fruits are in a papery protective covering called calyx. The fruit is orange or red in color, and when ripe, looks like a cherry. This herb produces kidney shaped seeds of yellow color. The roots can be 2 ½ feet or longer in length when harvested 150-180 days after planting. Ashwagandha thrives in a sunny area with well-drained soil.

Ashwagandha contains an abundance of antioxidants, iron, amino acids, alkaloids and other phytochemicals, in addition to having antibacterial and antiviral properties. The roots and berries have been used to boost the immune system, regulate hormones, stabilize mood, reduce anxiety, block tumor growth and regenerate nerve cells.

Wash and dehydrate the roots in 4 inch chunks in the fall after the first frost. To prepare Ashwagandha, <http://www.sawmillherbfarm.com/herb%20profile/ashwagandha/>. Consult your doctor before using Ashwagandha and heed risks and contradictions.

<https://www.webmd.com/diet/supplement-guide-ashwagandha>



# Spring Planting Suggestions

*by Roine Klassen, Master Gardener*

When planting in the spring, we can usually count on cooler temperatures, plenty of rain, gentle sunshine, and a great start for annuals and perennials. The biggest challenge may be the decisions about what and how many plants to get at the nursery or from your friend.

When you have the selected potted plants ready to put into a prepared space, dig the hole the depth of the pot or plant and at least twice as wide as it is deep. Roots will find their way more easily if the soil is loose. It will allow for a better start. As a general rule, the crown of the plant should be level with the ground surface to prevent water from pooling around the crown and making it susceptible to rot. Use a yardstick, shovel handle or flat to gauge the depth.

Perchance the plant is rootbound, it will get off to a better start if a soil knife or pruners are used to slice vertically up the root ball about one-third to one-half of the depth. Spread the sections apart over a mound of dirt before backfilling and watering the plant.

If the selected plant is bare-root, consider putting the roots in water to moisten while the hole is dug wider than the root mass. Make a mound of soil in the middle of the hole to support the roots. After settling the roots over the mound, water the soil so it can settle. As with potted plants, ensure that the crown of the plant is at soil level. Backfill the hole and water again.

If the plant is a perennial that already has flowers or buds, consider giving the plant a better start by trimming off the flowers or buds, so it can put its energy into producing roots instead of flowers and seeds.

When to plant a perennial depends on if it has been potted and already growing outside when it was purchased or if it was growing in the greenhouse. If the plant was outdoors, it can be put in the ground as soon as you can get a shovel in the ground. However, if it was in a greenhouse, consider hardening it off before planting. To harden off a plant with tender new growth, put the pot outdoors, out of direct sunlight and protected from the wind. Only move inside if frost is predicted. Gradually move the pots into the sun for longer periods of time over the next 5-7 days. Then it should be ready to plant.

Mulch placed around new plantings will help to hold moisture, moderate soil temperatures, reduce weeding time, improve soil structure and allow rain to soak in better. The choice of organic or inorganic mulch will depend on the desired results.

[Must Know Advice: planting perennials in spring.](#) *Garden Gate*, March/April 2020, pp 40-44 Kristen B Sullivan, editor; Cruz Bay Publishing, Inc., Des Moines, IA.





# Container Gardening

*By Nancy Torkelson, Master Gardener*

Container gardening is becoming a popular option across the country. In addition to requiring very little space, making it feasible for even apartment dwellers, it allows more flexibility in design, is easier on the back, and requires almost no weeding.

**Containers:** One of the first steps in container gardening is selecting the containers. Choose containers that complements the surroundings. Consider shape, size, material and cost. Some popular containers include:

1. Clay Pots - economical choice but dry out faster

than plastic

2. Glazed pots - popular, but spendy
3. Moss lined wire baskets - attractive, but extremely susceptible to drying out
4. My favorite is a large container in which you can place smaller plastic pots. Interchangeable plastic pots allow you to create a different design for each season. You can also remove plants that don't survive or just change the look of the container instantly.
5. Ultimately, anything can be used as a container - some people garden right out of a soil bag.

*Tip: If you have a container without drain holes, put a pot inside of it. Prop that pot up so it doesn't sit on drainage water.*

**Soil:** Once you've selected your containers, the next consideration is how much soil you'll need. Generally, a 12 inch container requires 3-½ gallons of soil, 16 inch containers hold 5-½ gallons of soil, and 36 inch containers hold 12 gallons of soil. You can make your own soil by mixing together one part compost (to hold nutrients), one part peat moss or coir (to hold moisture), and one part perlite or vermiculite (to provide pore space). It is best to start with new soil each year. This will prevent carryover diseases and the buildup of soluble salts. Additionally, 90% of organic matter dissipates within one year. If you want to use the soil for two years, replace half of it. Put your used soil into a compost pile, top dress your lawn, work it into a garden bed, or add under a shrub.

**Watering:** Many factors will affect watering, including the temperature, wind, sun, container size and type, as well as the individual plant's needs. In order to water properly, moisten the entire root zone. Water should drip out of the container. Avoid light watering. Check soil moisture regularly. Don't fertilize if the plant only needs water. Covering with mulch will keep the soil from drying out quickly.

**Fertilizer:** Start with a fertilizer high in P (Phosphorus) to promote rooting. Follow directions and water thoroughly. After that, fertilize at least once a month, using a 15-30-15 N-P-K or a 10-10-10 balanced fertilizer. You can use either water-soluble or slow-release fertilizer.

*Tip: If your plants develop yellow leaves, they may be over-watered, under-watered or need fertilizer.*

**Choosing the plants:** Annual flowers, annual herbs, and small vegetables are the easiest plants to work with. Combine plants with similar cultural needs (sun, water, etc.). Take into consideration the form, or basic shape of the plants. Look for variety in texture - coarse vs. fineness. Play with color and color combinations. Red, yellow, and orange are warm colors, while violet, blue and green are cool colors. Or create a design working with shades of a single color, light, medium and dark. Don't forget you can add vegetables to the container! Many veggies are very attractive and so healthy for you.

*Enjoy container gardening!*

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# Answering the Call to Garden

by Pam Conklin, Master Gardener



As a young girl, I gardened surrounded by prairie grasses and meadowlarks. My parents owned an acre of land a few miles outside of Sioux Falls. That land has long since been absorbed by the city and developed to a point that I can no longer identify it as a piece of my history. But the memories of working that land alongside my parents shaped my interests in plants and rooted in me a call to garden that I carried into adulthood.

When my mom died several years ago, I inherited a small, 64 page canning book titled, “Home Canners Textbook.” The book was copyrighted in 1943, and sold for 15 cents. A quote from the Secretary of Agriculture, Claude R. Wickard, “Food will win the war and write the peace,” was written on the inside cover. This little booklet not only offered canning know-how, but it also introduced

me to a bit of global and domestic history involving WWI and WWII that I was not fully aware of. That history is specific to a call to everyday citizens to produce and preserve food, as industrial producers and distributors could not keep up with the demands to feed troops and homeland citizens, as well as a way to offset food rationing. Victory Gardens (a term coined by George Washington Carver) began to sprout up all over the country, turning useless lawns into bountiful vegetable gardens. Victory Gardens grew all over the US and in the UK, Canada, Germany and Australia, as many answered the call to garden. You can learn more at

<http://www.sarahsundin.com/victory-gardens-in-world-war-ii/>.



Now, some eighty years later, we are faced with a global pandemic that is crippling our economy and interrupting our food chains. Once again we are feeling an urgency to be able to feed ourselves. The global population has grown exponentially since the forties and fifties, a trend that doesn't seem

to be slowing. The global population is expected to reach almost 10 billion within the next 30 years. Demands to feed growing populations may result in unsafe practices as farmers try to produce yields quicker. Some of these practices lead to E-coli and Salmonella outbreaks, which are occurring more frequently. Large scale, or "factory" farming is quickly replacing family farms and takes a greater toll on natural resources. We see greater contamination of ground waters, rivers, sterilization of the land, loss of pollinator habitat, and increasing dependency on chemicals in order to sustain otherwise unsustainable methods. But, out of these environmental and societal stressors a positive change has been taking place.

There has been a rebirth of sustainability practices that continues to make its way to the foreground of food production choices for many. Urban farms, organic farms, backyard gardens, container gardens, water conservation, creation of new pollinator habitats, permaculture, foodscaping, no till/no dig garden techniques, composting and indoor gardens are all on the rise. Don't ignore your call to garden, especially now that we have endless resources that make growing your own food very accessible and doable.



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## Answering the Call: New to Vegetable Gardening

*by Pam Conklin, Master Gardener*





If you're new to vegetable gardening, do your homework before you spend money!

1. Decide what you want to grow.
  - a. Grow what you know you will eat or have the time and know-how to preserve.
  - b. Share/donate extra produce, rather than let it go to waste.
  - c. Food is our goal in this article, but companion planting annual flowers that attract pollinators, such as bees and butterflies will increase your vegetable and fruit yields and add delight to your overall gardening experience.
2. Know the LIGHTING requirements
  - a. Vegetables do best in at least 8+ hours of sunlight. Some greens, like lettuce, require shade from the hot afternoon sun.
  - b. Hint: strategic planning considerations can allow taller plants to shade smaller plants from hot afternoon sun, just as easily as installing shade cloth.
3. Know SPACE requirements
  - a. Buying compact plants or planting in containers is a great answer to small spaces.
  - b. Savvy Gardening provides a list of best varieties for successful container growing, and some container growing know-how:  
<https://savvygardening.com/container-vegetable-plants-the-best-varieties/>



4.
  - a. Prevent disease, spindly growth and smaller yields by spacing plants so air can flow through and around them.
  - b. Consider vertical gardening - growing vining plants on trellises and other vertical supports (#6 below)
5. Know SOIL requirements
  - a. Most vegetables need fertile soil and a pH of 6.5 - 7.0, which is naturally found in most South Dakota soil. The main nutrient that may be in short supply is nitrogen.
  - b. Commercial garden mixes already have what you need to start growing, but can get expensive.
  - c. In the Southeast corner of South Dakota, we also have clay soils, which can be bad for drainage.

- d. If planting in the ground for the first time, conduct a drainage test:  
[https://extension.tennessee.edu/Williamson/Horticulture/Consumer%20Horticulture/DIY%20Soil%20Drainage%20Perk%20Test%20for%20Your%20Yard%20\(2016\).pdf](https://extension.tennessee.edu/Williamson/Horticulture/Consumer%20Horticulture/DIY%20Soil%20Drainage%20Perk%20Test%20for%20Your%20Yard%20(2016).pdf)
  - e. Amend soil with organic material to aid with drainage, or build raised beds:  
[https://bloomington.in.gov/sites/default/files/2017-06/Building%20better%20soil%20to%20%20boost%20productivity%20flier\\_5.pdf](https://bloomington.in.gov/sites/default/files/2017-06/Building%20better%20soil%20to%20%20boost%20productivity%20flier_5.pdf)
  - f. Add mulch to the base of plants to create a barrier between soil and plants. This not only prevents soil borne pathogens from infecting leaves, it also helps control soil and root temperature and keeps soil from drying too quickly.
  - g. Choose organic mulches that will slowly breakdown and add to the organic composition of the garden soil. Clean straw and/or hay; dry, untreated grass clippings; dry leaves; and newspapers all work very well. Bark tends to break down too slowly and will make planting/seeding difficult.
6. Know GROWTH HABITS
- a. Give support and grow up. Vining plants growing up a trellis or other support protects them from soil pathogens, and makes more room in the garden for other vegetables.
7. Growing berries and fruit trees
- a. There are many varieties of fruit trees and shrubs that grow in SD climates and soils.
  - b. Be mindful of cross-pollination requirements for different fruit species:  
<https://extension.sdstate.edu/sites/default/files/2019-04/P-00041.pdf>
  - c. Blueberries require acidic soils (4.5 - 5.5 pH) that are not generally found in SD, but most



nurseries sell container/patio varieties that we can easily grow and enjoy. You can try to grow blueberries in a 1:1:1 mix of sphagnum peat moss, perlite, and pine bark. Beginning in mid-May and every two or three weeks until mid-July, fertilize your blueberry plants with fish emulsion, or blood meal.

# Cures for the Top 5 Lawn Problems

By Nancy Torkelson, Master Garden



**Dog Spots on Grass** - Dog urine contains high concentrations of acids, salts and nitrogen, which burn the grass roots and kill them. As rain washes the area, the urine is diluted and the nitrogen spreads, causing the grass surrounding the area to grow faster and greener. **REMEDY:** You have to replant the grass. It will not come back on its own. First you have to dilute or remove the urine from the soil. 1. Thoroughly soak the area with lots of water. Let the hose run at least three minutes. 2. Add a half inch of new soil to help absorb the remaining urine. Then you can seed, or sod the area. The time of recovery is four to six weeks.

*Tip: If you use seed, moisten daily. DO NOT OVERWATER.*



**Thatch** - Thatch is caused by cutting off too much grass at each mowing after letting the grass get too long. Thatch can develop in any soil, but usually happens in soils with a high clay content. **REMEDY:** Slice open a section of your lawn. If your grass shows more than 3/4 inch of thatch, it is time to aerate. You can do this either in the spring or fall. You can expect the thatch layer to decrease about 1/4 inch per year.

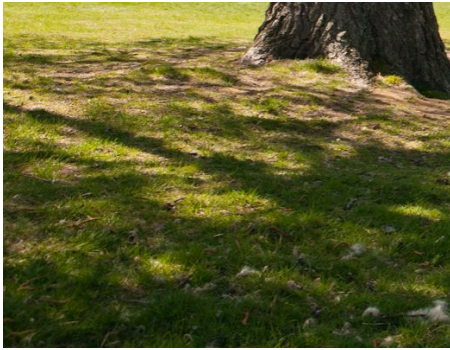
To prevent the problem: Mow often and cut no more than one-third of the grass. Water your lawn less often but for longer periods of time to prevent shallow root systems. Reduce the amount of fertilizer you spread at any one time. Reduce the use of pesticides to make the worm and microorganism population healthy. Aerate at least once a year if your lawn is prone to thatch.



**Fairy Rings** - Fairy rings are caused by fungi that live in the soil. As the fungi feed on organic matter they release nitrogen, which cause the grass to turn dark green. Often they appear where an old tree stump decomposed under the lawn. **REMEDY:** Hand aerate the area or add nitrogen to the rest of the lawn to make it greener. **RECOVERY** time; 10 to 14 days



**Grubs** -Lawn grubs are the larvae stage of moths and beetles. The grubs eat the roots of the grass, setting grass up to die by dehydration. Watch for increased activity of raccoons, birds, or moles. The moles will kill the grass as they forage for grubs. REMEDY: If you dig and find six to ten grubs in a 1 square foot area of sod, you will need to apply a grub insecticide.



**Shade** -Shaded areas will look thin and patchy. Trees, buildings and shrubs cause shading. If an area of your lawn gets less than 6 to 8 hours of sunshine, you will not have a lush, carpet-like lawn. REMEDY: Start a shade garden or a ground cover in any area that does not receive 6 to 8 hours of sun.

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## Your Questions Answered

Have a question or comment for Master Gardeners? Email us at [mcmgnewsletter@gmail.com](mailto:mcmgnewsletter@gmail.com) or post questions to our FaceBook page, [Minnehaha Master Gardeners](#).

*Q - When is the best time to plant flowers and vegetables?*

A - We can divide annual vegetable and flowering plants into two categories: cool season and warm season plants.

For vegetables, I usually look at planting schedules posted by The Old Farmer's Almanac for my specific area. <https://www.almanac.com/gardening/planting-calendar/SD/Sioux%20Falls#>.

Generally, Cole crops that consist of cauliflower, broccoli, and brussels sprouts are cool weather crops. Kale is another great plant for early spring, in fact, it's flavor is improved under a light frost.

When I think flowers in early Spring, I think mostly Pansies and Snapdragons, which can be planted as early as garden centers start selling them. These plants can tolerate a light frost and actually bloom best in cooler temperatures. Take a look at this site that highlights 12 different annual flowering plants. Take some notes before hitting the nurseries!

<http://www.costafarms.com/get-growing/slideshow/12-annual-flowers-that-can-take-the-cold>