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Editor Pat Hubert, Master Gardener



## Gardening With The Masters

May 7, 2016 **PLANT SALE** Fairgrounds

June 6, 2016 Enemy #1

July 11, 2016 Trees: The Good, The Bad &amp; The Ugly

Aug. 1, 2016 It's SO HOT!

All "Gardening With The Masters" seminars are held at the Outdoor Campus in Sioux Falls, are open to the public and free of charge. For more info, visit our website: [minnehahamastergardeners.org](http://minnehahamastergardeners.org)



# Modular Fencing

By Becky Kanengieter Master Gardener

I am making a new herb garden this spring using the same design as my vegetable garden. I call it "modular fencing". Modular meaning it's designed with standardized fence units for easy assembly and flexible arrangement. It combines fencing with some of the benefits of raised beds.

It was six years ago when I decided to move my garden. After considering raised beds, I came up with a different idea. Besides the usual benefits of a fence, this design has a few unusual features: The fence panels combine wire and wood fencing. The gate and all the fence panels are easily installed (and removed for tilling) with 2 stakes and 4 screws. It acts as a raised bed (the soil inside is 4-6 inches higher than the surrounding lawn). It offers a little wind protection. -I can easily step over it or lean on it when picking. I can expand my garden with additional panels. I can uninstall it and take it with me if I move, or if I want to reestablish a lawn at this site.



To make the fence, I purchased 6 ft. cedar fence panels from a local home store, which I cut down into 2 ft. lengths and dog-eared the top of each panel. I wanted 8 ft. lengths. To create each modular fence panel measuring 8 ft. long and 2 ft. high, I lined up the cut panels into an 8 ft. length on the edge of my driveway. Next I laid wire fencing over the panels, offsetting it 2-3 in. lower than the bottom edge of the wood fencing (to deter rabbits from digging under it). I laid a cedar 1x2in.x 8ft. board across the upper part and another across the lower part and fastened it with screws. Each panel is installed using 2 fence posts and 4 screws.

I've been gardening with this design for 6 years now. The fencing has held up well and I have not had any rabbits get into my garden.

Pictured are my established vegetable garden from a previous year and the new herb garden still in progress.

S.D.S.U.  
Extension

From the Ground Up

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Photos from Priscilla Jurkovich garden

# In the Herb Garden

By Priscilla Jurkovich, Master Gardener

Amaranth (*Amaranthus hypochondriacus*) is an annual tall herb from the Amaranth family that can grow up to three to five feet. Although its natural habitat is in Central America with Aztec and Mayan history, it can be grown in the South Dakota climate. Propagation by seed is best in the spring when the soil is warm. Amaranth prefers a well-drained fertile soil with full sun. The amaranth plant can tolerate a pH range between 5.2 and 7.5. It is a "cousin" to lamb's quarters with

oblong spear-pointed, green leaves that have red-purplish spots. The stalks are strong with a dramatic flower head of deep red flowers that produce 40,000-60,000 seeds. The flowers bloom from August until frost. The seeds are high in protein and fiber which also contain the amino acid lysine. They are easily harvested by placing the seed head in a paper bag and shaking the seeds in the bag.

Amaranth is a great food alternative for gluten-free diets. The seeds are a pseudo grain like quinoa, but are not

related to cereal grains. In the spring, the Amaranth leaves can be cooked and eaten like spinach. The leaves are high in iron, calcium, phosphorus, potassium, thiamine, riboflavin and niacin. There are medicinal qualities that act as sweat inducing agents as well as a diuretic. Some resources have used it as an astringent, to heal diarrhea, excessive menstrual flow and mouth ulcers. The red variety of amaranth betalaine has been extracted to use as a red color additive that is not harmful.

May 2016



Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5 <a href="#">Spring clean water features</a>	6	7 <b>PLANT SALE!!!</b> @ the Fairgrounds
8 <b>Mother's Day</b>	9	10	11	12	13	14
15	16 Monthly Minnehaha Master Gardeners Mtg. 7 pm	17	18	19 <a href="#">Prune flowering trees and shrubs</a>	20	21
22	23	24	25	26	27 <a href="#">Spring bulb care</a>	28
29	30 <b>Memorial Day</b>	31 <a href="#">Keep mower blades high</a>				



## Weeds! Weeds! Weeds! Common Mallow

By Paulette Keller, Master Gardener

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Picture by ipm.agsci.colostate.edu

Common mallow is an herbaceous annual or biennial plant that grows anywhere from 4-24 inches in height. The stems are trailing to ascending and are covered in short, fine hairs. The leaves are arranged alternately on the stems, are heart shaped to kidney shaped with wavy margins and have a crinkled appearance. They, like the stems, are covered in short, fine hairs and are ½ to 1 inches across. The small, white flowers have five petals with dark violet veins and notched tips. After flowering, round, flattened

fruits appear. The shape of these fruits is what gives the plant its common names of 'cheese weed' and 'cheese plant'. Each fruit resembles a wheel of cheese in

shape and contain 10-12 wedge-shaped seeds. As the plant matures, the seeds break apart from the bracts of the flower. Common mallow can be found in central, southern and eastern Great Plains states in waste places, gardens, lawns and roadsides. It is uncommonly found in cultivated fields but is commonly found in lawns. Bees, flies and caterpillars use common mallow as a food source. If common mallow grows in nitrogen-rich soil, nitrates can accumulate in the tissues of the plant, making it toxic to animals. Crops can be adversely affected by common mallow because the plant serves as a host for insect pests and viruses

## Container Vegetable Gardening

By Cindy Jungman, Master Gardener

Do you lack a space to plant a garden?

Are you short of time to spend on a garden?

Would you like to garden but have difficulty bending or stooping?

Do you want to teach your children the joys of vegetable gardening?

Are you new to gardening and want to start out in a small way?

All of the above are reasons to consider raising vegetables in containers. A patio, balcony, or doorstep is all you need to grow fresh, nutritious vegetables. There are a few simple ingredients for success –choosing the proper container, using a good soil mix, selecting suitable vegetable varieties, providing adequate sunlight, and watering and fertilizing regularly. Almost any type of container can be used for growing vegetables. Flower pots, window boxes, buckets, totes, trash containers, and wooden barrels are examples of containers that would be suitable for growing vegetables. The most important requirement in a container is that it must have holes in the bottom to permit drainage of excess water. Holes may be drilled or punched in the bottom if needed.

The size of the container depends upon the type of vegetable you are growing. For instance, tomato, squash, and cucumber plants require five gallon containers, while pepper and bean plants can be planted in two gallon containers. Lettuce, onions, carrots, radishes, and beets can be planted in any container that is deep enough to allow for root growth. My general advice for containers is "the bigger the better." Larger containers, such as old storage totes, allow you to put several plants in one container and will not dry out as quickly as smaller containers. Larger containers are also less likely to blow over as plants grow taller. Remember that large containers will be heavy when filled with soil, so find a location where they will not need to be moved.

A good soil mix is needed for container vegetable gardening. The soil mix should be lightweight and porous to allow both water and air to reach the roots. Commercial soil-less potting mixes are an excellent choice for containers. They are lightweight, drain well, hold water and nutrients, and are generally free of weeds and disease. Avoid heavy products, often labeled potting soil, top soil, or garden soil. These products hold too much moisture when wet and pull away from the sides of the container when dry. Never use garden soil for container gardens.

Most vegetables that grow in a typical garden will also do well in container gardens. Those varieties with compact growth habits will do best. Many varieties of vegetables have been introduced for containers or small

spaces. Look for key words such as bush, compact, dwarf, or space-saver. Follow the instructions on the seed packet for planting depth and spacing requirements. Do not crowd your plants! For vine plants such as cucumbers or pole beans, consider adding a trellis to allow the vines to grow vertically. You may need to provide a support, such as a tomato cage, for taller plants.

Sunlight is another important element in container vegetable gardening. Most vegetables need a minimum of 5 hours of direct sun each day, and will grow best with 8 to 10 hours of direct sunlight. Root crops and leaf vegetables can tolerate partial shade.

Container vegetables require more frequent watering than plants in the ground. Never allow the soil to dry out completely, or the plants may drop their fruit. On the other hand, over-watering will slowly kill the plants. Check your containers daily to judge the need for water. Apply enough water to reach the bottom of the container and allow the excess to drain through the drainage holes. If your container is located on a wooden deck or on an upstairs balcony, you will want to place a tray of some kind under the container to catch run-off water. Prop the container up so that it does not stand in the collected water.

The use of self-watering containers helps cut back on the frequency of watering. These containers have a water reservoir underneath a perforated platform in the bottom of the container. Water is wicked up from the reservoir into the soil. Self-watering containers may be purchased in garden centers or can be homemade.

The use of mulch, such as grass clippings, on the soil surface will also prevent water loss in containers.

Container vegetables require fertilization. Either time-release or water soluble fertilizers may be used. Time-release fertilizer is mixed with the soil media at planting time, and nutrients are released over a period of time. Water soluble fertilizer is added to water and applied when plants begin to grow actively. Always follow the application directions on the label. Do not apply more than the recommended amount of fertilizer.

Good luck and get growing!



## Bottle of Wine....

By Debra Brost, Master Gardener Intern

The second winery in the series is also located close to Sioux Falls. Tucker's Walk Vineyard is owned and operated by Dave and Sue Greenlee. The vineyard, named for their Afghan hound Tucker, began planting in 2003.

Sue and Dave have retired from EROS and their scientific backgrounds are evident in their approach to both viticulture and winemaking. Their interest in gardening led them to try their hand at grape growing and they started with an experimental assortment of cold hardy varieties. Their knowledge was enhanced by attending Winemaking School at Nebraska City, NE and by attending educational sessions offered by the Minnesota Grape Growers Association. They are currently involved in the Northern Grapes Project which focuses on cold climate cultivars.

Cold-hardy grapes that have been successful for the vineyard include Marquette which was recently patented by the University of Minnesota. Tucker's Walk was the first vineyard to grow and sell the Marquette. Other red grapes grown are St. Croix and Frontenac. The Brianna is a recommended white wine grape along with Frontenac Gris, La Crescent and St. Pepin. Their planting strategy is to alternate rows of St. Pepin (not self-fertile) with the Marquette to facilitate pollination between the male and female vines.

The vineyard now has approximately 3500 vines. The rows are 9 feet apart and only the row area between vines is cultivated to eliminate weeds. Short Grass prairie was seeded between the rows to reduce the competition for water and require less maintenance. The trellis system, with wires at a height of four feet, ensures better fruit production and makes harvesting easier. An added benefit is the better air flow under the vines which reduces the occurrence of powdery mildew.

For the gardener interested in growing grapes for their personal supply of wine, Dave suggests that 12 plants generally will make about a five gallon carboy and, eventually, two cases of wine. He advises watering in the first year, if needed, but sparingly thereafter to encourage deep root growth. Pruning should be done before growing season to lessen the impact when the vines are actively growing. You can expect to harvest the grapes in August and September. Netting is a necessity to prevent forfeiting your crop to the birds.

Tucker's Walk produces wine from fruits other than grapes: black currants, cherries, apples, pears and cranberries - to name a few. They have received medals for their Marquette, Brianna and Cranberry wines.

Tucker's Walk is located at 48348 254<sup>th</sup> St Garretson, 9 miles north of Brandon on Highway 11. The location has a new tasting room and a beautiful view of the vineyard. Hours are Fri.-Sat., 11- 6, Sunday 12 - 5 or by appointment at (605) 594-6287. Their website has a wealth of information [www.Tuckerswalk.com](http://www.Tuckerswalk.com). The hosts are welcoming and the deck will be a great place to enjoy a summer day with a glass of wine.



## ...Fruit of the Vine

By Bonnie Lynch, Master Gardener

Grapes are one of the oldest cultivated plants in the world. Grapes can be eaten fresh, used in jam, jelly, juice, or WINE. Grapes are woody, deciduous perennial vines consisting of a root system, trunk, and canes. Most grape varieties are self fruitful: the flowers are self-fertile and pollinated by wind and insects so a single plant can produce fruit. Best cultivars for South Dakota include: red wine – Frontenac, Marquette, St. Croix; white wine – Brianna, Edelweiss, LaCrescent, Swenson White; table/juice/jelly – Bluebell, Swenson Red, Valiant, Worden.

When selecting grape cultivars, consider winter hardiness, time of ripening, and intended use. Grapevines grow in a wide range of soil types. Well drained, loose soils produce the best growth and yields, so avoid soils that are persistently wet during the growing season (slopes are good). Grapevines also tolerate a wide pH range. Grapes prefer a slightly acidic soil with a pH of 6.0 to 6.5, but grow well with a pH from 5.5 to 7.5. Full sun is important to provide the heat required to ripen the fruit. Good air circulation around the canes is a must, as is support from an arbor, trellis, or porch railing. Virtually any type of support structure will do, provided it is sturdy.

Spring planting is recommended to give the young vines the most time to get established. Keep plants in a cool place with the root system moist after you receive the plants. When planting bare root vines, soak the roots in a bucket of water for 2-3 hours before planting. At planting, remove all canes except the most vigorous one. Plant vines with the lowest bud on the cane just above the soil surface. Trim off any broken or excessively long roots. Dig a hole large enough so you can spread the root system out, then cover the roots completely with soil. Backfill with the original soil from the hole and firm around the roots to eliminate air pockets. Water well. Provide 1 inch of water per week through the first growing season. Space vines 6 to 8 feet apart within rows; rows should be 8 to 10 feet apart. Grapevine roots like to be warm. Keep grass and other plants from growing under vines. Maintain a cover crop between rows to control weeds (mowing periodically is helpful). Vines grow vigorously and fertilization may or may not be needed -- Too much nitrogen may promote rampant vegetative growth and delay vine and fruit maturity. Fertilize grapevines only when plants exhibit weak growth or poor leaf color. Grapevines need yearly pruning to produce good yields (10-20 pounds per vine when mature). Heavy pruning provides the best fruit.

Diseases flourish in high humidity. Good air circulation is very important for preventing most diseases. Equally important is raking and removing leaves each fall as well as picking up and composting fallen fruit. After pruning, remove prunings from near the vines. These practices will remove some of the places disease can overwinter to infect the following spring. Diseased portions of a vine should be removed and discarded at first sign of disease to prevent spread to the rest of the vine. Grapes are susceptible to the following: 1) Powdery mildew, 2) Downy mildew, 3) Fruit rots, 4) Herbicide damage, 5) Animals: Birds attracted to the ripening berries can eat them all before you are ready to harvest. Netting is best solution. Deer and raccoons may need to be kept out with a fence if they prove to be a problem. Japanese beetles may damage foliage; yellow jackets and Asian ladybeetles may feed on maturing fruit.





## In BLOOM: Lady's Mantle

By Roine Klassenr, Master Gardener

### Lady's Mantle

(*Alchemilla mollis*) Perennial; zone 3

Lady's-Mantle makes lovely edging plant with pleated and scalloped 6-in. wide leaves that unfold to make a soft gray-green mass in early spring. This low growing plant's leaves are covered with small hairs that trap water droplets with a reflecting air bubble under each one. This creates fascinating patterns in any light. Frothy clouds of chartreuse-yellow flowers on 2 -ft stalks spill over the top. The flowers last a long time in the garden. They can also be dried to be used in winter arrangements; cut just before the flowers reach full bloom for the best results. Deadhead if seed heads are not wanted or they start to look messy.

Sun or shade but it does best with good soil and regular watering. In spring, add some fertilizer. The best time to divide the plant is in spring.

This decorative, easy to grow, and well behaved plant requires little maintenance and has



## Master Gardener Notes

- May MG meeting will be held on Monday, May 16 at 7 pm at the Extension building, located at 220 W 6th St Sioux Falls, SD 57104. JOIN US! ☺
- Volunteers are still needed for the summer Garden Tour. See the April meeting minutes for details
- Remember to keep track of your hours for recertification. Forms and more information can be found at our website:  
[www.minnehahamastergardeners.org](http://www.minnehahamastergardeners.org)



## Edibles: "Radish: *Raphanus sativus*"

By Judy Walz, Master Gardener

Radishes are a quick growing, cool weather member of the cabbage family. They are low in calories and a good source of potassium, vitamin C, folate and fiber. They require very little space but do need sunshine and moist, fertile soil. Radishes can be planted in between rows of slower maturing crops and harvested in 3-6 weeks. They should be sowed to about ½" deep and thinned to about plantings can be made in the spring the mid 60's. Additional crops can be



2" apart. Multiple until daytime temperatures average above 50°F and then late summer cools for harvest in the fall.

Radishes that lack moisture, sun exposure, or are exposed to warm temperatures may mature slowly and develop a hot taste and a woody or spongy texture. Radishes should be harvested as soon as they are of an edible size (about 1" diameter globes), before summer heat or seed stalks develop. They remain edible for only a short amount of time before they become pithy (spongy).

There are winter varieties (such as Chinese Rose or White) that will mature slowly and can reach a larger size. These can be sown in late summer and harvested in late fall. They will remain crisp longer than early spring varieties and can be stored for several months.

Common problems reported with radishes include cracking and splitting of the globe, which can happen when the radishes are left in the ground too long. If radishes grow with all top and no root they may have been planted too thickly, too late (too warm), or may not be getting enough sun.

Root maggots may be a problem and can tunnel into radishes. Soil insecticides can be useful if this has previously been an issue. Clubroot is a fungal disease that affects members of the cabbage family. The best solution is to plant radishes in a different location or to try to raise the pH of the soil to 7.2 by adding lime.

### Sources:

<https://extension.illinois.edu/veggies/radish.cfm>

<http://www.gardening.cornell.edu/homegardening/scene341b.html>



# Tips to Weather TOO Much Rain in the Garden!



Reprinted from Ohio State University Extension

<https://ofbf.org/2015/06/25/tips-to-weather-too-much-rain-in-the-garden/>

Pam Bennett, horticulture educator with the College of Food, Agricultural, and Environmental Sciences at The Ohio State University, said wet conditions can lead to three main concerns for gardens: root death, diseases and weeds.

"Hopefully by now, the water has drained. If not, you may have some trouble with your plants," said Bennett, who is also the state Master Gardener Volunteer coordinator for Ohio State University Extension, the college's outreach arm.

"Plant roots need oxygen; they need that air in order to grow. When they sit in water for a period of time, that leads to root rot and lack of oxygen, and eventually possibly death. So you need to watch your plants. If they start to turn yellow, you may have to remove them."

Despite the abundance of rain in recent weeks, Bennett said gardeners shouldn't become complacent and assume that their plants have all the water they need. "If you have really good drainage, don't let this time go by thinking that you don't need to water just because we have had a lot of rain," she said. "When we get temperatures in the 80s and 90s, plants are going to dry out fairly quickly, so you really need to pay attention to watering needs in the garden and landscape."

Prolonged rainy weather can also lead to disease problems. "When we get a lot of moisture on foliage for a period of time, and then we get the right weather conditions, you may see leaf spot diseases and other problems occur," Bennett said.

"When you see disease symptoms, it's too late to spray. You have to have those fungicides on the plant before the problems occur. The best thing to do in that case is to pull off any of the diseased leaves, eliminate them from the garden because of potential secondary infection, and hopefully the new growth won't be as affected."

The third issue gardeners may be experiencing is weeds, whose growth is aided by rain and warm temperatures.

"It's very important to get out there and pull those weeds before they go to seed," Bennett said. "If you let weeds go to seed, you are going to cause more problems for yourself next year."

"Once you get the weeds cleaned out, you can use a pre-emergent herbicide, mulch or newspaper with grass clippings on top. Use something that is going to prevent future weed growth from occurring."

For help with your gardening or landscape questions regardless of weather conditions, contact your local Extension Office.

## Minnehaha Master Gardeners

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