

From The Ground Up

VOLUME V ISSUE V EDITOR: MARGARET MURPHY, MASTER GARDENER AUGUST, 2013
INFO@MINNEHAHAMASTERGARDENERS.ORG WWW.MINNEHAHAMASTERGARDENERS.ORG

Visit a Farmers' Market This Month

By: Christina Lloyd, ISU Extension and Outreach Agriculture and Natural Resource Intern

Farmers' markets are now in full swing. Farmers' markets are not only a way to support local family farms but also give the consumer the benefit of knowing where their food comes from and how it's produced. It is also a place where community is built. In most places around the world, the local market is the heartbeat of the community. Consumers not only have the chance to build relationships and interact personally with the farmers and families that are producing their food; but they can also interact with other people in their community who are gathered at the market for the same purpose.

When going to the farmers' market look at it as an adventure and take your time and have fun. There are always new things to learn and people to learn from so don't be afraid to ask questions. Go early in the day to allow for the best selections and bring your own reusable shopping bag. Even though some vendors will provide you with bags for your produce, bringing your own ensures that you will have something to carry your goods in while also cutting down on waste. Another good idea is to bring a cooler with ice packs so you can keep what you bought in tip-top shape until you get home.



Though the farmers' market is a great place to get your produce there are some things that you need to keep in mind when it comes to food safety.

Make sure you always check the produce for bruises or damage as these areas are good places for microbes to flourish. Always rinse your produce under cool water before using and pay particular attention to any produce that comes into contact with the ground like spinach, melons and carrots. All milk, cheese, juice and cider products sold are required to be pasteurized or treated before packaging. Canned goods, with the exception of jams and jellies, need to come from a licensed and registered processing facility and all foods must be labeled with the common name of the item, the producer's name and address, the ingredients, allergy information and the net weight or volume. If you have concerns about how a product was processed or labeled, make sure to ask the farmer who is selling it. Also, when purchasing ready to eat foods make sure to ask the seller how long it has been out and how it was prepared and pay attention to sanitation. If the seller fails to promote cleanliness, the products may be at risk of contamination, which may lead to food

borne illnesses.

When paying for your purchases there are several options. Many markets are beginning to accept electronic payments like debit and credit cards, Women Infant and Children (WIC) vouchers, Electronic Benefit Transfers (EBT) and vouchers from the Senior Farmers' Markets Nutrition Program (SFMNP) among others.

Visit a Farmers' Market this month. In Sioux Falls there are two main markets: Falls Park Farmers Market (www.fallsparkfarmersmarket.com) and the Sioux Empire Farmers Market (www.siouxempirefarmersmarket.com).



Does your lawn have some bare spots?

Late summer (mid-August to mid-September) is the best time to overseed existing lawns. Late summer seeding has several advantages over spring seeding. The seeds of cool-season grasses germinate quickly in the warm soil of late summer. Once the seeds germinate, the warm days and cool nights of early fall promote rapid turfgrass growth. The growing grass also has less competition from weeds, as few weed seeds germinate in fall.

When purchasing grass seed, select a high quality seed mix that is best adapted to the site. Kentucky bluegrass is the best choice for sunny areas that receive at least six hours of direct sun each day. Choose a seed mix that contains at least two or three bluegrass cultivars. Because Kentucky bluegrass is slow to establish from seed, perennial ryegrass is often included in bluegrass mixes to speed establishment. The fine-leaf fescues (creeping red fescue, hard fescue, chewings fescue, etc.) are the best grasses for shady locations. In lawns that contain sun and shade, select a seed mix that is approximately 60 percent Kentucky bluegrass, 30 percent fine-leaf fescue and 10 percent perennial ryegrass. Kentucky bluegrass will be the dominant grass in the sunny areas while the fine-leaf fescues will thrive in the shaded portions of the lawn.

To reduce the competition from the established turfgrass, mow the lawn at a height of 1½ to 2 inches. Successful overseeding requires good seed-to-soil contact. Simply throwing or broadcasting seed over the lawn typically results in poor seed germination, as much of the seed rests on the thatch layer or soil surface. Core aerators, vertical mowers and slit seeders can be used to ensure good seed-to-soil contact.

After seeding, keep the upper 1 inch of soil moist by watering once or twice a day. With adequate moisture and warm soil temperatures, the seeds of most turfgrasses should germinate in two to three weeks. When the grass seedlings reach a height of 1 to 2 inches, gradually reduce the frequency of watering, but water more deeply. Source: www.extension.iastate.edu/node/19291



www.colostate.edu

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is published monthly during the growing season by the

Minnehaha Master Gardeners
2001 E 8th St.
Sioux Falls, SD 57104

Phone 605-782-3290
info@minnehahamastergardeners.org
www.minnehahamastergardeners.org



AUGUST 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3 Harvest onions when tops fall over and begin to dry
4	5 Harvest and dry herbs for later use	6	7	8 National Zucchini Day!	9	10
11 Enjoy some sweet corn	12	13 Begin to freeze or can surplus garden produce	14	15	16 Add water to ponds and water structures as needed	17
18	19 National Potato Day!	20	21 Cut flowers from your garden and put in a vase for an indoor pop of color	22	23	24 Sow grass seed if need to overseed bare spots
25	26	27 Continue to harvest zucchini and cucumbers to keep plants productive	28	29 State Fair begins!	30	31 Sow lettuce, spinach and radish seeds for a fall harvest

The South Dakota Herb Garden

By Priscilla Jurkovich, Master Gardener

Cilantro *Coriandrum Sativum* is an annual herb and a member of the carrot family, *Apiaceae*. Cilantro likes full sun or light shade and grows well in South Dakota zone 4. It grows best in a well-drained, moist soil. Cilantro plants should be spaced about 6 to 8 inches apart. To harvest fresh cilantro all season, make successive sowings every 2 to 3 weeks starting in late spring. From the time of sowing seed, cilantro leaves can begin to be harvested in about 3 to 4 weeks. Cilantro seeds can be harvested in about 45 days.

The leaves are used in many Mexican and Thai cuisine. The leaves are variable in shape, broadly lobed similar to Italian parsley. The flowers are in small umbels, white or very pale pink. The seeds (called coriander) are used to aid in digestion.



Photo by Priscilla Jurkovich



Photo by Priscilla Jurkovich

They are an appetite stimulant and aids in secretion of gastric juices. The leaves are generally used fresh since they lose their flavor when dried. The seeds, however, emit flavor when used to season food like sausage, breads, beer and thickened soups.

The essential oil contains antibacterial properties and can be used as a fungicide. A poultice of coriander seed can be applied externally to relieve painful joints, hemorrhoids and rheumatism. The leaves are believed to detoxify the body from heavy metal poisoning such as amalgam that has been used in teeth and mercury or lead. The seeds can be boiled in water to make a tea that can lower cholesterol, relieve anxiety and insomnia. This tea can be used as a cold remedy and also helps dispel gas.

Just the Right Partnership

By Margaret Murphy, Master Gardener

A few years ago, a friend of mine was out in his back yard and noticed one of his trees had some odd, orange growth all over its trunk. He was worried that the tree had become engulfed with some tree-eating fungus. Well, it was nothing so sci-fi as all that but guessing it might be a fungus wasn't so far off the mark. His tree had lichen growing on it.

Lichen can be a little strange looking but it's nothing to worry about. Actually, it is a rather interesting organism. Lichen is formed by a union of two separate species, a fungus and an alga. Fungi, which include mushrooms, lack chlorophyll and are unable to produce their own food. Algae are capable of photosynthesis and provide food in the form of carbohydrates to this symbiotic relationship. The fungus gives structure to the partnership. As algae are usually associated with living in water, the addition of a fungus allows it to live practically anywhere. The fungus also allows for lichen to grow and spread.

Roughly 18,000 lichens have been catalogued with over 3,600 found in North America. Lichens are classified based on their color and growth habit. They span a large color palette that includes white, gray, green, red, yellow, orange and black. There are three main groups of lichens: foliose, fruticose and crustose. In a nutshell, foliose has slightly raised and leaf-like structures, fruticose's structure is more branch-like and crustose is flat, forming a crust-like covering over the surface it grows on. Crustose lichen is the most colorful and is often a bright yellow or red.

Lichens are tough hombres and can thrive in areas considered too harsh for many other organisms. The only places lichens may not find suitable are those with heavy air pollution. Despite their willingness to survive in almost any environment, they do require a few habitat necessities. The first is a source for water. Lichens can obtain water from rainfall, dew or water vapor. When moisture is available they actively grow but when it is too dry they go dormant. Sunlight is another requirement. Lichens provide much of their own food through photosynthesis. They also need to be able to acquire nutrients such as nitrogen, carbon and oxygen. Lichens can "fix" nitrogen from the air and transform it into a usable form for plants much like certain bacteria fix nitrogen in the soil. The

last deciding factor as to whether lichen can colonize an area is available substrate. Since lichens live on top of something else, they require an undisturbed place to anchor.

Trees, rocks, soil, roof shingles and tombstones are all sites where you can commonly find them growing. While living out on Cape Cod, MA, I often took long walks along the beach. I always kept an eye out for the delightful little green lichen with a red cap known as 'British Soldier'. It would grow on the worn-down snow fences positioned to control erosion.

It put my friend's mind at ease, to learn that lichen does not harm trees or deprive it of nutrients. Actually, seeing lichen is a favorable sign. It indicates that the local air quality is good. Because they absorb everything from nutrients to toxins, clean air is another essential element for lichens to flourish. Very few lichens are found near dense urban areas with high levels of air pollution. Due to their sensitivity to pollutants, scientist often study lichens as part of their environmental monitoring of an area.

Lichens are an important and beneficial part of our world. They provide food and shelter to many organisms. In Alaska, they are a primary food source for reindeer as well as supplemental food for a variety of other critters. A large number of birds and insects use lichens for nesting material. Humans also have numerous uses for lichens. We put them in dyes, paints, toothpastes, deodorants and perfumes. With their antibacterial properties, they are often used in salves and other medicines. Currently, they are being looked at for their promising potential in the treatment of certain cancers and viral infections. So next time you are out and about, see how many different types of lichens you can find. And I hope you will marvel, as I do, at how diverse, adaptable and delightful they are.



www.extension.umn.edu

Pest of the Month Blossom End Rot

Lately, gardeners have been finding one of the most common disorders affecting the fruit of the tomato: blossom end rot. It can appear on fruit in any stage

of development, but is most often found in the earlier stages of growth.

Blossom end rot begins as a flattened, dark spot about 1 inch round on the blossom end of the tomato. This disorder is caused by a calcium deficiency in the plant. South Dakota soils are usually sufficient in calcium. The problem results from the plant's inability to provide enough calcium to the rapidly-growing fruit. This mainly happens due to wide fluctuations in soil moisture.

The best way to prevent blossom end rot is to maintain a uniform supply of moisture by watering regularly and applying mulch around the plants. Water your tomato plants so the soil becomes evenly moist throughout the root zone. Consistent watering will help keep a steady flow of calcium from the soil to the fruit. Keep in mind that blossom end rot typically becomes more serious with an excess of nitrogen fertilizer. If you find a tomato with blossom end rot, just remove it. Fruit that develops later on the same plant can be fine.



pender.ces.ncsu.edu

Tomato Fun Facts

- The tomato plant originated in South America and was domesticated by the Incas as early as 700 A.D. Back then, the tomato had many ruffles and ridges.

- Spanish monks cultivated the tomato, although it was not widely accepted by Europeans as an edible fruit.

- During the nineteenth century, the French called the tomato "The Apple of Love," the Germans "The Apple of Paradise," but the British believed it was poisonous (it is in the nightshade family).

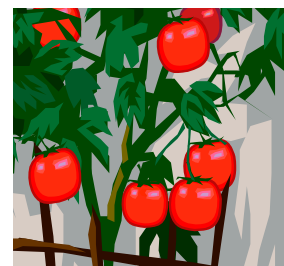
- Tomatoes are a valuable source of food minerals and vitamins, particularly vitamins A and C.

- Studies have shown that people who eat large amounts of tomatoes or tomato products may be at lower risk of some kinds of cancer.

- The first Americans to start using tomatoes in their cooking were the Creoles in South Louisiana.

- Tomatoes used for canning are harvested by machines, but table tomatoes are still hand picked.

Source: www.kidsarus.org/kids_go4it/growit/plantit/tomatoes.htm



Save the Date

- **August 12:** Next MG meeting is a picnic at Dick Sorenson's gardens 6pm at 46655 W. 41st St. Call 338-8740 for details
- **August 29-September 2:** South Dakota State Fair, Huron
- **September 27, 28 & 29:** MG Fall Update in Watertown, SD

Master Gardener Notes

Volunteer Opportunities

- [Extension Office Flowerbed](#)
- [Zoo Xeriscaping Project](#)
- [Extension Office calls](#)
- [Newsletter](#)
- [Farmers Market](#)

Click on opportunity for contact person's email

- Keep track of your hours! Send completed [forms](#) to Mary Roduner by mail or FAX

For more information call the Master Gardener office at 605-782-3290 or send an [email](#)

Plus, check out our [website](#)!

Plant of the Month

By Deb Wallin, Master Gardener

Hydrangea

(*Hydrangea* spp.) Family: *Hydrangeaceae*



The gardens are showing the Hydrangea in full bloom. There are many species, shapes, sizes and colors. The most popular is the Smooth Hydrangea 'Annabelle' with clusters up to 1' across of mostly white flowers clusters, which change to green and then brown in the winter.



The Bigleaf Hydrangea is the one used by florists for potted flowers. There is a large variety of flowers and colors. The flower heads are either mopheads or lacetops, with showy flower clusters of pink, red, blue or purple, which get so heavy they tend to bend and break. 'Endless Summer' and 'All Summer Beauty' are popular bigleaf hydrangeas. Flower color depends on soil pH with pink flowers resulting on alkaline soils and blue on acidic soils.



The Panicle Hydrangea can get 10' to 12' tall and wide and can be trimmed into a tree form. Flowers are white changing to pinkish as they mature. The flower head is pyramidal, with cluster 6" to 8" long. The most common or popular cultivars are the 'PeeGee', 'Tardiva' and 'Unique'.



Climbing Hydrangea is a true climbing vine with root-like holdfasts, which climb structures and trees. Leaves are 2" to 4" long and dark green. Flower heads are white 6" to 10" diameter clusters. The flower head is fragrant and matures to an attractive brown.

During hot summer weather is when hydrangeas need large amounts of water to keep them looking good. Fall is when hydrangeas develop their flower buds. If they get stressed, fewer buds will develop.

Photos from University of Wisconsin

Raised Beds in Community Gardens

By: Chris Zdorovtsov, Community Development Field Specialist, SDSU Extension

Raised beds are not a necessity for all community garden sites, however there may be times when they should be considered. Many simply like the way raised beds look or feel they are easier to garden out of. So if aesthetics or ease of use are concerns, raised beds may hold the answer.

Raised beds should be considered when the garden will be utilized by handicap or elderly participants, when the soil is potentially contaminated, when seeking higher yields in limited space, and when desiring a longer growing season.

Raised beds will increase accessibility for people utilizing wheel chairs or for those that require sitting or standing. For most wheelchairs users the height should be 24-27" and the width should match the arm's



reach, approximately 2 1/2 feet from one direction. If the user has difficulty bending, waist height is ideal, approximately 30". However this will vary with the user.

It may be hard to know if your soil is contaminated, so exploring site history is important. It will also not be feasible to simply send in a

bag of soil and say 'test for contaminants.' If you suspect a particular contaminant, such as lead, you could have it tested, but expect to pay at least \$50 for the test. If you suspect there is a risk at the location you can build a raised bed. Bring in new soil media and garden on top of the space. With shallow rooted crops build your wall up a minimum of 6-8 inches. Additionally, if the site is simply poor quality (high clay soil, rocky ground, paved area) raised beds are a solution.

If limited on space a raised bed will produce more produce per square foot compared to a traditional home garden. Raised beds do not require the usual space between rows because no walking is done in the bed to cultivate or harvest. So vegetables are planted in beds at higher densities - ideally spaced just far enough apart to avoid crowding but close enough to shade weeds.

Finally, soil temperatures are typically warmer in spring and fall so this will allow you to plant a little earlier and grow a little later. Plus hardware can be installed as part of the bed design to create a slick system for utilizing cloth or plastic to build tunnel systems to protect the plants from cold weather. These systems can extend the growing season several weeks before and after frost.

Do consider that installing and maintaining raised beds will likely cost you more money than simply gardening in the ground. The installation process, can be a more intimidating process or require more effort than simply tilling. Keep in mind that they will drain faster and dry out more quickly, so they will likely need more frequent watering. These factors will also need to be weighed in the final decision.

Source: Ohio Extension-<http://ohioline.osu.edu/hyg-fact/1000/1641.html>

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