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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.



Flax (*Linum usitatissimum*) is an annual herb from the Linaceae or flax family. The flax family is known for its flowers. The leaves are very small and narrow and are less than an inch long. Stems are slender and branched near the base of the plant reaching up to 36 inches in height. The attractive blue flowers are mostly self-pollinated with 5 petals. Each flower develops into a round seed capsule or boll about one-third inch in diameter. Each capsule contains 4 to 10 seeds.

The seeds (also known as linseed) have been used for textiles, food and medicine. The flaxseed has been used as a laxative because they expand when they come in contact with water. The flaxseed and flaxseed oil has been studied for its omega-3 fatty acids components that decrease cholesterol, helpful in heart disease, inflammatory bowel disease, arthritis, breast, prostate and colon cancer, and menopausal symptoms. The linseed oil can be used to preserve wood. The stems have been used to make linen.

What's Bugging You??

by Donna Haber, Master Gardener

Crickets!!

Crickets belong to the Order Orthoptera and are related to grasshoppers and katydids. They have long antennae, chewing mouthparts, and large back legs used for hopping and jumping. Male crickets produce their characteristic chirping sound by rubbing specialized wings together to attract females or warn off predators. Varieties common to our area include field crickets, house crickets, and camel crickets. Crickets feed on a variety of plants, dead or weakened insects, and fabrics such as cotton, silk, linen or wool especially soiled by perspiration or food.



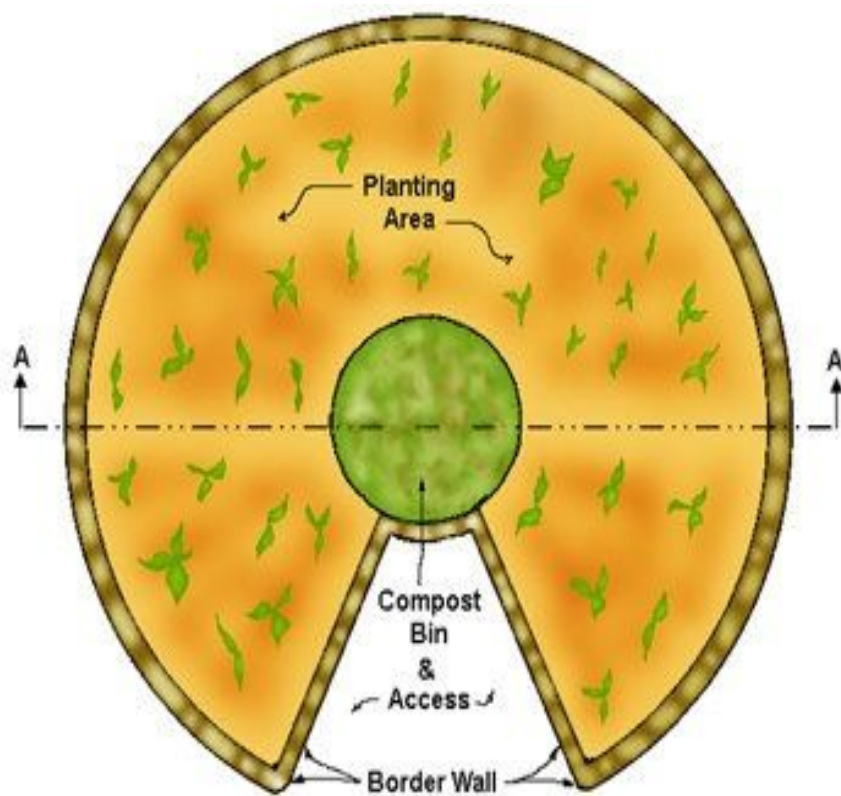
Scientific evidence exists that temperature can be calculated by counting the number of chirps of a single cricket. Count the number of chirps in fifteen seconds and add forty. This will give an approximate temperature reading in degrees Fahrenheit.

While cricket chirping can be idyllic in a camping or bonfire setting, nighttime chirping in a home setting is not as desirable! Crickets are accidental home intruders, gaining access to the indoors by cracks in foundations, open doors and windows, or poorly fitting windows or doors. They are attracted to light and are often driven indoors by cooler outdoor temperatures.

Non-chemical control both indoors and outdoors should be the preferred method for control of crickets and should focus on habitat modification, exclusion, and sanitation methods. Outdoors-- cut tall grass and weeds, especially near building foundations. Caulk or repair cracks and gaps of windows and siding. Change outdoor lighting from white light to yellow light. Cricket predators include birds, spiders, and lizards, so caution should be used in using pesticides that will compromise natural predators. Control outdoors can be supplemented with chemicals, but read labels carefully before purchasing and using to ensure proper use. Indoors--clean up boxes and papers which provide cover for the insects. Dry damp areas with ventilation or a dehumidifier. Sticky glue traps can be successful for capturing crickets. Chemical use indoors should be avoided.

Keyhole Gardens: A Drought Tolerant Composting Garden

By Bonnie Lynch, Master Gardener



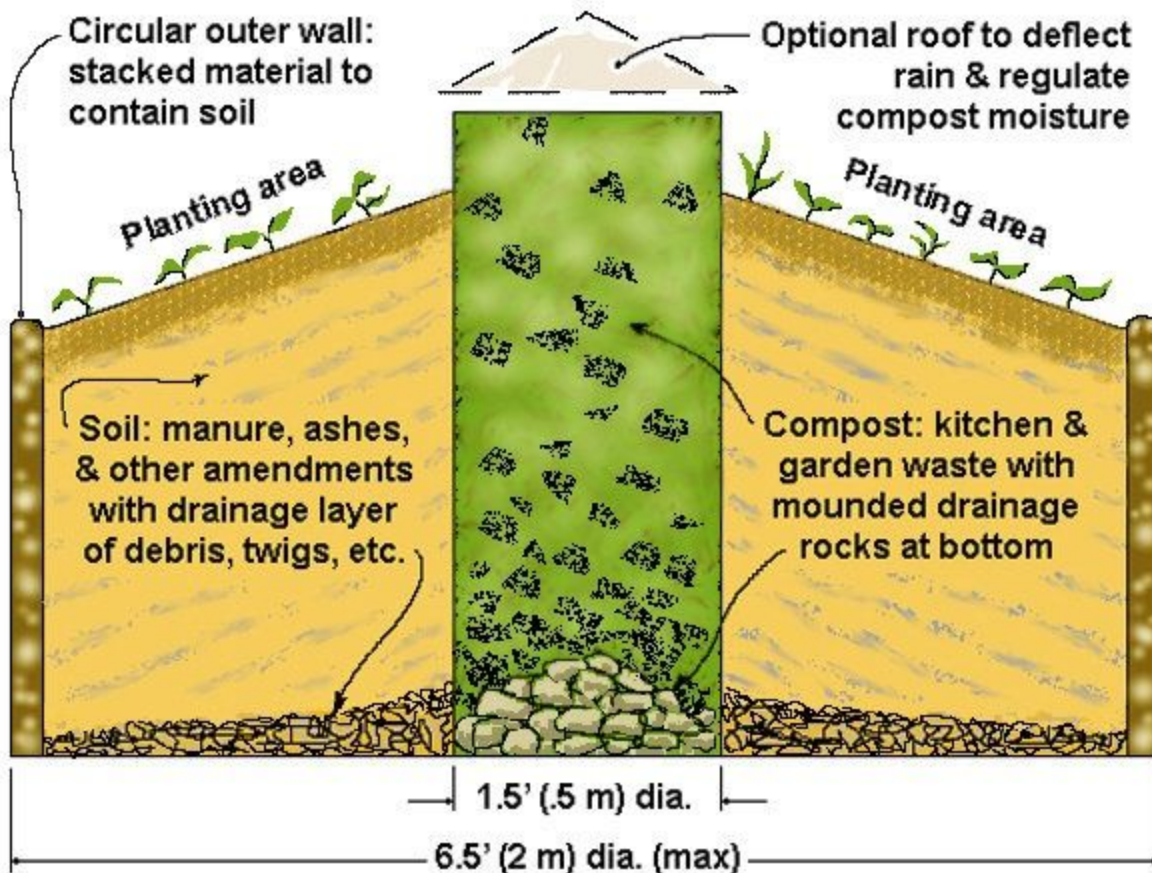
Keyhole Garden Plan View

A Keyhole Garden combines elements of a raised bed, a lasagna garden, composting bin, and a recycling system all in one. How great to create a garden that uses recycled materials, less water and maintenance, and can be made accessible to kids, seniors or handicapped!

Originally, keyhole gardens were developed for use in impoverished countries with poor soil, bad weather, and starving people. Charities taught schoolchildren to construct the gardens from available recycled materials and to care for the vegetables they planted. The schools benefitted by having nutritious vegetables for lunches. The children went home to educate their parents, thus enabling families to feed themselves.

Overview:

The Keyhole Garden is really quite simple. A circular raised bed has a center compost basket that distributes nutrients to the surrounding lasagna-style garden bed. "Lasagna garden" refers to a composting technique using browns and greens (natural material such as leaves, twigs, straw, grass clippings, kitchen scraps without dairy or meat), mixing these with soil and layering these materials like a cook assembling a lasagna). A small pie-slice section of the bed allows for easy access to the center compost basket and forms the keyhole design. Kitchen and garden waste, along with household gray water, are added to the center basket. The soil bed layers are slightly sloped away from the center to aid water movement. Compost tea may also be added for enhanced plant health.



Keyhole Garden Cross-section A-A

Basic Construction:

- **Size:** A cleared level area no larger than 6-1/2' in diameter is the maximum size for a Keyhole Garden. A larger diameter bed may suffer from a lack of water near the outer wall of the bed (running from the compost basket), and plants close to the center may be difficult to reach. For adequate drainage, materials such as rocks, broken tiles or pots, rusty cans, twigs, small branches, or similar items can be used for the bottom layer.

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- **Outer Wall:** Anything that will contain the soil can be used: stones, bricks, or blocks can be stacked into place; boards or branches can be driven into the ground; sand bags or old tires could also work. The cutout area of the keyhole should be wide enough to allow easy access to the compost basket when adding materials and water, removing compost, or making basket repairs. Positioning the cutout on the north side (least sunny) of the circular garden allows most plants to better capture sun. Facing the cutout to the south will create a U-shaped bowl that captures and holds heat. You must weigh your garden's needs to determine which option is best for you.
 - **Compost Basket:** A tube, 12 to 18 inches in diameter and tall enough to extend well above the center of the bed, can be fashioned from anything that will allow water to pass through into the surrounding bed (chicken wire, fencing, or sticks – like a woven basket). Supports to hold the basket in place, such as strong branches, boards, or rebar are necessary; wire or strong twine to hold everything together must also be used. The basket holds the compostable materials in place while allowing for drainage out into the surrounding planting area, thus providing nutrients to the plants from recycled kitchen waste. The first few inches of the compost basket's bottom are filled with drainage materials such as rocks, the rest holds kitchen and yard waste that eventually decomposes and turns into compost.
 - **Planting Bed Fill:** Use the same materials as for a lasagna garden, or compost pile, (cardboard, paper with black ink only, manure, leaves, straw, hay, old potting mix, wood ashes). The surface of the bed should be layered with good quality top soil. The soil surface should gently slope away from the compost basket to encourage drainage and the movement of composted nutrients into the keyhole garden's growing area. Make sure to stay below the top of the walls to contain rainwater and prevent the soil from running off

Illustrations from www.davesgarden.com

Ajuga reptans (Bugleweed, carpet bugle)

Family: Lamiaceae (mint)

By Ronine Klaussen, Master Gardener

This herbaceous perennial is a good ground cover in sun or shade. Foliage colors will be best when it receives more sun. It grows in Zones 3-10 to a height of 6-9 inches. The foliage is attractive and colorful for a long season. Flowers grow on short spikes of blue, purple or white in early summer (May-June). While it prefers regular watering and well drained average soil, it would be considered low maintenance. It tolerates rabbits, deer and juglone produced by black walnut trees. No pests or diseases are common to ajuga.

NOTICE: reptans (creeping) in the name denotes that the plant spreads by stolons or runners. If it is planted near a lawn, it may start appearing in the grass. If a large area needs to be covered, ajuga may be the plant to choose. Since there are about 50 known species, the wide variety of foliage may convince the gardener that it is worth a trial.



www.missouribotanicalgarden.org

Houghton Mifflin Co. Taylor's Master Guide to Gardening

Growing Sweet Peppers

By Julie Waltz Master Gardener

Sweet peppers belong to the *Capsicum* species. They are a warm season vegetable that is related to tomatoes, potatoes, and eggplant. They are native to Mexico and Central America and are perennials in tropical areas.

The plants are bushy with shallow roots. They can be self-pollinated or pollinated by bees. In this area, it is better to plant transplants rather than start seed outdoors. Plant seedlings so that the shoots are at the soil line. Do not bury the stem like tomatoes. They prefer a soil pH between 6-7. Peppers will do well in warm sunny weather, but don't like excessively warm or cold weather.

Plant with 12-24 inches between plants and 18 inches between rows. Staking can help when fruit loads are heavy as the roots are shallow. It is good to keep the soil moist. Peppers can be susceptible to blossom end rot, similar to tomatoes.

They can also be attacked by a variety of bacteria, such as bacterial spot, and viruses, such as cucumber mosaic virus. Pest problems include the corn borer, pepper maggot, aphids, thrips, stink bugs, spider mites, and the cucumber beetle.

Timing of harvest depends on what kind of pepper you want. All peppers go through a green stage then mature into other colors. The green stage is considered mature. Colorful bell peppers have a sweeter taste and higher levels of vitamin A and C.



Sources:

<http://extension.missouri.edu/p/G6372>

<http://www.extension.umn.edu/garden/yard-garden/vegetables/growing-tomatoes-peppers-and-eggplant/>

Picture credit: Julie Waltz

July 2017

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2	3	4	5	6	7	8
		Celebrate America! Happy Birthday!			Keep up with the weeding!	
9	10	11	12	13	14	15
			Check your community garden bed.			Visit a Farmer's Market
16	17	18	19	20	21	22
	Master Gardener meeting 7:00		Enjoy some fresh veggies!		Are you getting ready to enter the fair?	
23	24	25	26	27	28	29
		Bring in some flowers!				
30	31					

