

In the Herb Garden

The herb section will feature herbs that can be grown in the South Dakota region.

By Priscilla Jurkovitch Master Gardener



Skullcap or spelled scullcap (*Scutellaria lateriflora*) is a side-flowering perennial herb in the Lamiaceae (mint) family. It propagates by roots, divisions and runners. Skullcap grows upright between two to three feet in height and likes full sun to part shade. Thrives in a wet habitat and is found in nature near marshes or other wet habitat and prefers acidic soil. The tiny, tubular, two-lipped, snapdragon-like blue or purple flowers are less than 1 inch in size. The flowers bloom from July through October. They usually do not appear at the top of the main stem, but are produced along the length of side branches that grow from the leaf axils.

Skullcap has medicinal qualities. Skullcap has been used as a mild relaxant for nervous tension, anxiety, insomnia and muscular tension. Harvest the leaves, stems and flowers when the flowers are blooming. Put the leaves in a pot of hot water and enjoy the calming, anti-depressive effects and digestive benefits.



Beets! You Can't Beat 'Em!

By Pam Conklin Master Gardener Intern

Super food highlights:



Beta vulgaris subsp. *vulgaris*; we know it as beet, garden beet, sugar beet, and beetroot. This tasty vegetable belongs to the same family as Swiss Chard and Spinach, and was first cultivated long ago by the Romans.

Don't avoid beets based on their sugar content. This root crop has a low Glycemic Load¹ and packs a nutritional punch. Beets contain folate, iron, calcium, manganese, potassium, protein and of course, fiber.² The detoxifying, antioxidant, anti-inflammatory, anti-viral and anti-cancer properties in beets make them a great choice for your heart and your table.

What you need to know before you grow:

- Difficulty: Easy
- Edible parts: Root and leaves
- Days until harvest: 40 - 80, depends on variety*
- Planting: Sow seed directly into the ground, planter, or raised bed
- Planting Schedule: Beets grow best in cooler temperatures**
- Soil: Requires about 8-10" of loose, fertile soil and good drainage
- Sunlight: Six or more hours, but shade from hot afternoon sun helps
- Fertilizer: Usually not needed, test soil before adding fertilizer
- Harvesting: Beets are most tender when the root is about 1-2 inches in diameter.
- Problems: Mostly problem free, but just in case, use a diagnosis tool to guide you to a fix³



Fun facts:

1. The beet seed that we plant is actually a small fruit that contains several tiny seeds. So, despite proper spacing during planting, you may need to thin out the seedlings as they sprout up in order to maintain the best spacing for the beets to mature.

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2. Unused seed can be stored for up to 5 years. The best way to store extra seed is in an air-tight container in your refrigerator or freezer, but if that is not an option, keep the seed away from heat and moisture

Planting and tending:

- Mark out the area to be planted. Make sure the soil is loose and free of roots from trees and shrubs, rocks, and weeds.
- If you haven't tested your soil in a few years, it may be a good idea to do a quick test to check the fertility of your soil. Do it yourself soil test kits are inexpensive and available at any garden center. The main nutrient that may be deficient in South Dakota soil is nitrogen. Don't just add nitrogen without first testing to see if it is actually needed. Too much Nitrogen in your soil will help the beet tops develop to full, beautiful greens, but may interfere with the development of the bulbs. If your soil has a deficiency, amend it with an organic vegetable fertilizer before planting. It is not necessary to test newly purchased commercial garden soil.
- Next, use a small tool or your finger to draw a line for planting seed. When planting beet seed, either push the fruit into the soil about 1/4" or drop them onto the soil surface and cover with one-fourth an inch of soil or mulch, like clean straw. Don't forget to label your rows.
- Water the area to a depth of about one to one-and-one-half an inch, using a fine-spray watering can or hand-held wand. Keep the soil evenly moist, but be careful not to saturate the area. The best method for testing soil moisture is to stick your index finger into the soil. Once the beets have sprouted and become established, water less frequently, but more deeply. If leaves begin to wilt or brown on the edges, you may not be watering as thoroughly or as often as needed.
- Weed! Weeds compete for water, nutrients and space, so keep weeds out of your growing space all season long by pulling them as they appear. Be careful not to disrupt beets that are close to the weed. If a weed is too close, you may want to use a scissors to cut the weed at soil level, rather than pull it and risk damaging or accidentally lifting out the beet plants with the weeds.

Picking and storing:

A few leaves from the growing beets may be picked, or cut from the plant and added to a fresh salad, or steamed and eaten as a side dish. Just be careful to not cut all of the leaves from any one plant.

Beets have the best flavor when the tops of the bulbs begin to appear above the soil and are around 1 to 2 inches in diameter. Pull the beet from the soil by gripping the stems near the bulb. If the soil has become compacted and the beets don't pull out easily, you may want to carefully loosen them from the ground with a small trowel. Use caution not to nick or gouge the bulb if you are using a tool. Wash the soil from the roots and leaves under water.

Once harvested and cleaned, beets, with tops attached, stay fresh in the refrigerator up to 14 days. And as long as the air is cool, 32 - 40F and humid, beets, without their leafy tops will keep for 4 to 10 months.

Enjoying your harvest:

It is true that beets can be eaten raw, wash and peel the bulbs and shave onto a bed of fresh spinach, or wash the leafy tops and add to a fresh mix of greens, but I prefer cooking them. There are so many healthy and fun recipes online, anything from juices, slaws, to soups and salads. Beets can be stemmed, boiled, roasted, and pickled. Beet powder is even featured in some Keto diets. And, let's not forget beet sprouts in the long list of mighty micro-greens!

One Last word about beets:

The beautifully, deep red color of beets can bleed out during cooking, leaving the beets looking pale. In order to reduce the "bleeding" when cooking, leave about 1 inch of the tap root below the bulb and about 1 - 2 inches of stem at the top of the bulb, or you can keep the leafy tops attached. Because the red pigment, Betanin, is a larger molecule, it doesn't attach easily to fabric fibers; therefore, the color easily washes out of clothing, so there is no need to worry about staining.

Special Notes and References

*Days to reach maturity for some of the best varieties to grow in SD:

- Chioggia (heirloom) - 55 Days
 - round bulb has alternating rings of white and pink inside
- Cylindra (heirloom) - 58 Days
 - bulb looks more like a fat carrot and growing 6 - 8 inches long
- Detroit (heirloom) - 63 Days
 - round bulb is smooth and large, medium/tall crimson tops
- Detroit Dark Red (heirloom) - 59 Days
 - developed from Detroit, round, dark red color, medium tops
- Early Wonder (heirloom) - 50 Days
 - round bulb with good flavor, small tap root, medium tops
- Red Ace (F1 Hybrid) - 51 Days
 - round with good flavor, short tops, slow to go to seed, or become woody

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- Golden Detroit (Heirloom) - 55 Days
 - golden bulb doesn't "bleed," sweet flavor
 - Baby Beet - 40 Days
 - round, and dark red, sweet and earthy flavor, great for small spaces

****Planting dates for beets**

- *Summer harvest* - about 2 weeks before last Spring frost date;
- *Fall harvest* - about 8 weeks before first Fall frost date.
- South Dakota USDA Hardiness Zone Map
 - <https://www.plantmaps.com/interactive-south-dakota-usda-plant-zone-hardiness-map.php>
- Glycemic Index and Beets, <https://www.livestrong.com/article/370347-glycemic-index-beets/>
- USDA National Nutrient Database for Standard Reference Legacy Release, ndb.nal.usda.gov
- Identifying and treating beet problems
- <https://apps.extension.umn.edu/garden/diagnose/plant/vegetable/beet/>

Early to bed, early to rise,

Work like hell - fertilize.

~ Emily Whaley, Charleston, N.C.

Flowers for your garden

By Roine Klassen Master Gardener

Foamflower (*Tiarella cordifolia*)



If you're looking for a fragrant, beautiful foliage and shade-loving perennial, check the traits of the foamflower. The plant can be used as a ground cover since it grows about 12 inches tall. Plan for a rich humusy moist but well drained soil. The "maple-like" leaves are dark green in summer and turn a reddish bronze color in fall. It spreads rapidly by



underground stolons (runners). The flowers are white but may have a pinkish color before they open. Expect flowers in May and June. Cut off spent flowers to encourage more blooms. Foamflowers have a low incidence of insect and disease problems. Rabbits and deer don't seem to be a problem. Some sources say it is hardy to zone 3, others say 4-7.

CHOOSING FLOWERS FOR HOME GARDENS

By Cindy Jungman, Minnehaha Master Gardener

- Take a look at the area where you want to plant your flowers.
 - How much sun does the area get each day?
 - Is the area generally wet or dry?
 - Is the area exposed to wind?
 - How large is the area?
 - What color is the background?

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- **Determine what characteristics you desire in your plants.**
 - Do you want flowers with long bloom times?
 - Do you prefer certain colors?
 - Do you like flowers that attract birds and butterflies?
 - Do you want flowers that do not require deadheading to keep blooming?
 - **Pay careful attention when choosing your plants.**
 - Purchase plants as close as possible to your planting date, but allow time to acclimatize them to the outdoors.
 - Read plant labels. They will help you determine light requirements, plant height, special growing needs, and planting instructions.
 - Look at the overall impression that the plant gives. Healthy plants will have good, rich color and a vigorous appearance. The foliage will be without holes or spots.
 - Plants should be well branched, compact, and should be without broken or damaged stems. Compact plants with lots of flower buds are preferable to tall, leggy plants with lots of blooming flowers.
 - Healthy roots are essential to healthy plants. Look at the roots of plants by gently easing them out of the container. There should be plenty of healthy white or tan roots. There should be no offensive odor or mushiness. Also, avoid plants whose roots are tightly crowded and circling in containers, or that have roots growing out the drain holes. These plants will not transplant well.
 - Soil should be moist but not too soggy.
 - Absolutely avoid any plants that show signs of pests or diseases.
 - **Prepare your plants for planting outdoors.**
 - Greenhouse plants need to be acclimatized to outdoor weather. Harden off seedlings by placing them outdoors for several hours on mild days. Select a shady, sheltered area at first. After several days provide some sun in gradually increasing amounts.
 - Do not allow seedlings to dry out.
 - **Happy planting!**
 - Plant on a day that is not excessively hot or windy.
 - Flowers look best when planted in odd numbers.

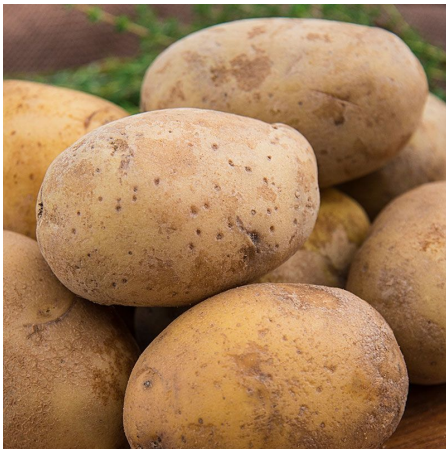
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- Follow plant tags for spacing instructions.
 - Pay attention to height, and plant tall flowers behind shorter flowers.
 - If plants are already in bloom, pinch off the flowers before planting, so that the plant's energy will go into forming a healthy root system.
 - If the roots are wrapped around in the soil, gently loosen them and spread them out when planting.
 - Always water after planting.

Everything You Ever Wanted to Know about Growing Potatoes in South Dakota

By Jerry Mills, Minnehaha County Master Gardener

Q: We expanded our garden site last year. We are veteran gardeners but have never planted potatoes. We plan to try them for the first time this spring. We're considering planting Kennebec and Pontiac. Are these good varieties for this area? What do we need to know to raise a good crop of potatoes?

A: Potatoes prefer a loose, fertile, slightly acid soil. Most South Dakota soils are neutral to slightly alkaline but still seem to raise decent potatoes. One word of caution: don't add large amounts of manure or other organic matter to the area you plan to plant potatoes. High organic matter leads to a higher incidence of potato scab, a corky, undesirable appearance on the skin of the tuber.



For best results, start with certified, disease-free potatoes from a reputable garden center or nursery. There are many potato diseases that can transfer with or on the seed potato. Potatoes sold in the produce section of the grocery store are not suitable for seed potatoes as they have been treated to prevent sprouting. Your best bet is certified seed potatoes.

Large potatoes should be cut into pieces or sections, each containing 1 or 2 eyes or buds. Smaller seed potatoes can be planted whole. If the soil at planting time is cool and wet, freshly cut seed pieces may decay. This can be prevented by treating the

freshly cut pieces with a fungicide or by cutting the seed pieces several days in advance of planting and then storing them at 60 to 70 degrees F. and 85% relative humidity. Storing several days at this temperature and humidity will allow the cut seed pieces to heal or callus-over before they are planted.

Some folks swear potatoes have to be planted on Good Friday. I've never found research supporting or disputing this fact. The best approach would be to plant potatoes as soon as the ground can be worked. The recommended planting date for potatoes in northeastern South Dakota is about April 25, a few days earlier in the south and a few days later in the north-northwest.

Set the seed pieces, cut side down. Seed pieces and small, whole, seed potatoes should be planted about 4 inches deep, one foot apart in rows 2 to 3 feet apart.

Some of the recommended potato varieties for South Dakota are Red Norland, Redsen, Crystal, Norchip, Norgold Russet, Superior, Viking, Kennebec and Red Pontiac. The two varieties you have chosen, Kennebec and Pontiac are fine for this area. They are both late season potatoes. Kennebec has a large oblong tuber with a creamy- smooth skin and shallow eyes. It has resistance to the common strain of late blight. Red Pontiac has large oblong to round, blunt ended, red-skinned tubers with medium deep eyes. It has little or no known disease resistance. For optimum yield, you may want to consider potato varieties with the most genetic disease resistance.



Good luck with your potatoes!