From The Ground Up

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Beautiful for a Day

By: Margaret Murphy, Master Gardener

The day lily. Their botanical name, *Hemerocallis*, is a Greek word meaning "beautiful for a day". This refers to the individual flower, which last for only one day. Several blooms, though, are produced on a flower stalk offering a continuing burst of color for about three to four weeks. Given the abundant selection available, daylilies are a great choice for providing color in your garden throughout the growing season. There are early flowering varieties that bloom in late spring. Many types that bloom early to mid-summer and a few that will flower late summer until frost.

Most daylilies prefer full sun but some can manage quite well in partial shade. I have an area in my yard that is generally neglected due to it being shaded by several large trees. My daylilies, however, have taken to it and are just now starting to give me beautiful orange blooms in an otherwise gloomy spot. Daylilies have a reputation of being tolerant of poor sites, though like most flowers, they do best in well-drained, fertile soils. Most varieties are also quite reasonable about being left to themselves. Unless there is a prolonged period of drought, their watering needs are met by the rainfall. Their fertilizing requirements are minimal. If they are fertilized too heavily, it can result in a wealth of foliage with few flowers. A light application of fertilizer in spring is usually sufficient. Moreover, for most gardeners, deadheading seems to be optional.

Some gardeners do it regularly while others, like me, rarely perform the duty.

The finished bloom of a daylily tends to quickly get mushy so deadheading can help keep up its appearance. For reblooming varieties, deadheading encourages the plant to keep flowering. To remove the spent bloom, snap the flower off the stalk being sure to include the whole flower not just the petals. If the flower is left on, a seed capsule will develop, which to some is considered unattractive. When all the flowers on the stalk (also called the scape) are finished blooming, you can cut the stalk back to the ground.

Pull out dead leaves and clean up debris in the fall. The foliage can also be pruned back to within a few inches off the ground after several killing frost or in early spring before new growth begins. Winter mulching is not needed on established daylilies - those that have experienced at least one winter; but do provide some protection to newly planted daylilies.

Daylilies are generally propagated by division. They can be divided about every 4 to 6 years with the best time being in spring as new growth emerges or in early fall well before the first frost. They can be grown from seed but most daylily seeds need several weeks of stratification before being planted. Stratification involves exposing the seeds to cold, moist conditions to break dormancy. After planting, seeds take 3-7 weeks to germinate. Plants started by seed generally do not look the same as the parent.

pubpages.unh.edu

Daylilies are a great addition to any yard. They can be grown in garden beds, used as borders and put in containers. They are also plants that are often shared among gardeners.

Dividing the Bearded Beauty

It is important to divide bearded irises about every three to five years to prevent overcrowding. Crowding of plants can lead to disease and reduced flowering. July and August are the best times to divide and transplant them.

Bearded irises grow from underground stems called rhizomes. To divide, carefully dig up a clump of rhizomes. Cut the leaves back to one-third of their full height and wash the soil from the rhizomes with water. Then cut the rhizomes apart with a sharp knife. Each division should have a fan of leaves, a few inches of healthy rhizomes and several well-developed roots. The division is now ready to transplant.

igrow.org

To transplant, dig a hole large enough to accommodate the clump of rhizomes and roots. Build a mound in the middle of the hole and place the clump on top. The new plant will come from the fan end of the rhizome so point the fan of leaves away from other irises if planting in a group. Gently spread out the roots and fill the hole with soil. The rhizome should be just below the soil surface when planted. Water your transplants thoroughly.

Transplanted irises may not bloom fully their first spring but should produce beautiful flowers by their second or third year. If you do not divide your irises this season, avoid cutting back the leaves until they yellow. This allows the plant to continue making food to store in the rhizome for next year's bloom. Remove the old foliage after it has died back to the ground. You can remove old blooms and stalks after flowering to discourage seed production.

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SDSU Extension
Minnehaha County Master Gardeners

JULY 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2 Install tomato cages, bean trellises, if not already done	3	4 **Happy Independence Day!!**	5 Keep track of the weeks we receive less than 1 - 2" of rainfall and water plants accordingly	6
7 Continue dead-heading flowers for more blooms	8 **Master Gardener Meeting 7 p.m.**	9	10 Check tomatoes for leaf spot and other diseases	11 **Continuing Ed. Opp**—Hands on Training at McCrory Gardens, 8:30-4. Register w/ Mary Roduner	12	13 Visit a Farmer's Market
14	15	16 Watch for cucumber beetles, squash bugs, & potato bugs	17	18 Enjoy your peas, carrots, broccoli, & other bounties from your spring plantings!	19	20
21	22 Keep ahead of lawn mowing to ensure that no more than 1/3 grass length removed each time	23	24 Buy a couple of vases from a thrift store and take cut flowers to a hospital or nursing home	25	26	27
28	29	30 Spend a little time weeding your outdoor plants each day to keep ahead of the weeds	31			

The South Dakota Herb Garden

By Priscilla Jurkovich, Master Gardener

Plantain, *Plantago major*, is from the Plantaginaceae family. This hardy perennial (zone 2) has flat, long, and spreading leaves growing from a rosette center. These leaves have predominant ribs running parallel along the leaf. The flowers are tiny, white and clustered into a head that blooms most of the summer. The distinctive flower stalks are erect, long, and dense flower spikes. Plantain is easily cultivated by seed in any soil and prefers a sunny area. Often considered a weed, this herb is an important food plant for caterpillars and many species of butterflies.

Photo by Priscilla Jurkovich

The plantain plant is one of the most widely used herbs. The young leaves can be eaten in salad and planted as a diverse forage for animals. Plantain seeds (psyllium) contain up to 30% mucilage, which swells in the gut acting as a bulk laxative and active ingredient in Metamucil. The thickening effect has been used to thicken ice cream and frozen desserts. The seeds can be ground to thicken soups.

The leaves and the seed are used as antibacterial, anti-inflammatory, antiseptic, diuretic, laxative and expectorant to name a few. Plantain is often referred to as "nature's band-aid" since the anti-inflammatory effects of the leaves will help heal wounds and stop bleeding. The heated leaves can be used as a wet dressing for wounds and to promote healing without scars. These heated leaves can draw out thorns, splinters and inflammation. The Native Americans carried powdered roots of the plant as protection against snakebites. It is commonly found near poison ivy and can be placed on the skin to decrease inflammation after exposure to poison ivy. Extracts from the plant have been used in preparations to stop smoking.

What's Eating My Cabbage?

By Margaret Murphy, Master Gardener

Experience has taught me that cole crops can host a variety of insect pests. Three that are frequently encountered are the imported cabbageworm, cabbage looper, and the diamondback moth larva. If you grow cole crops, you have probably seen the adult form of the imported cabbageworm. These are the small, white butterflies fluttering around your garden. The female will lay tiny, light colored eggs often on the underside of the leaves. Her larvae are velvety green caterpillars that have a faint yellow stripe down the back. They reach about an inch in length and move slowly as they chew their way through the leaf.

Though similar in feeding habit, the cabbage looper can be distinguished from the imported cabbageworm by its distinctive looping gait. As they inch along, they arch the middle portion of their body to bring the back legs forward to meet the front legs. Light green in color, these caterpillars have thin, white stripes running down each side. They reach about 1 1/2 inches in length. The adults are brown colored moths that have silvery white spots in a figure eight pattern on the front wings. Their white, dome shaped eggs are easily seen with the unaided eye and are usually laid on the undersurface of leaves.

Compared with the cabbageworm and looper, the diamondback larvae are small, less than 1/2 an inch in length, and yellowish-green to light brown in color. They are spindled shaped with a forked tail. When disturbed, they often quickly attach a silken thread to a leaf and drop over the edge. Adults are slim, light brown moths. When at rest, their wings reveal a pattern of three white diamonds. Their eggs are tiny, butter-colored specks found on the underside of leaves but are difficult to see.

Management of these cole crop pests begins with good surveillance. Keep an eye out for the plain, white butterfly flittering around the yard. As with most moths, the cabbage looper and diamondback moths are nocturnal so may be difficult to observe. Check the plant leaves regularly for eggs or caterpillars. The larvae have voracious appetites and will create irregular holes in the leaves. When feeding on cabbage, the older larvae can crawl to the center of the plant and penetrate the head. On broccoli or cauliflower, they can forage on the developing flower. Cole crops can tolerate some insect damage but if treatment is needed, there are several approaches you can try.

Physical control: You can remove the caterpillars by hand and drop them in a pail of soapy water to kill them or try floating row covers to create a barrier to the adult pests.

Natural control: There are a number of natural enemies that prey on the imported cabbageworm, cabbage looper and diamondback moth larva. Many are commonly found in our yards including paper wasps, and parasitic wasps and flies.

Insecticidal control: When possible, select a control that is less impacting to natural enemies and pollinators such as *Bacillus thuringiensis* (Bt), a bacterium that targets caterpillars, or spinosad, which is made from a soil-dwelling microorganism. Other controls include broad spectrum insecticides such as permethrin and carbaryl. Whenever applying any type of insecticide, remember to read the label and follow all the instructions carefully.

Lastly, an additional step toward controlling garden pests is to always rotate your crops by family groups. Vegetables within the same family are often vulnerable to the same insect pests and diseases. Since many pests can overwinter in the soil, rotating your crops can help you avoid reoccurring pest problems.

Pest of the Month
Squash Vine Borer

Adult form: www1.extension.umn.edu

The adult borer is a wasp-like moth with an orange colored abdomen dotted with black spots. It typically appears in late June or early July to lay its eggs primarily on squash and pumpkin plants. The eggs hatch in about a week. The larvae then bore into the plant stem to feed. Damage to the stem by the tunneling larvae blocks water flow to the rest of the plant causing it to wilt and eventually die.

Now is the time to monitor for the presence of the adult borer. The use of floating row covers will prevent this female from landing and laying eggs. Chemical control includes applying an insecticide to the stem of the plants at the end of June or early July or when an adult borer is seen.

Larvae: www.ca.uky.edu

A note about honey bees and insecticide use: We all know how important bees and other pollinating insects are to our food crops. Try not to use insecticides that are toxic to bees while your garden crops are in bloom. Apply insecticides later in the evening to avoid spraying while honey bees are actively foraging. Keep in mind that when it's hot, bees are active earlier in the morning and later in the evening.

Garden Fun Facts

Vegetable trivia...

- Jeepers, beets are great for your peepers! Carrots have traditionally been associated with eye health, but beets have a potent mix of nutrients that put them in a class of their own.
- Sweet potatoes can help keep blood sugar levels steady.
- Every ear of corn has an even number of rows.
- Romaine lettuce can help you from your head to your toes. A Romaine salad packs enough vitamin K for the day, which keeps your circulatory system pumping and your entire body healthy.
- Ever wonder where the saying "Cool as a Cucumber" comes from? The inside of a cucumber is 20 degrees cooler than the outside.
- Timber! A forest of broccoli trees has a dynamic trio of nutrients that support your immune system and takes an axe to the toxins in your body
- Why did the people dance to the vegetable band? It had a good beet. Source: http://ns.spps.org/uploads/fun_food_facts.pdf

Save the Date

- Youth and school garden workshops in Sioux Falls and Rapid City: July 10 in Sioux Falls; July 24 in Rapid City. Registration forms are available at iGrow.
- *Harvest of the Month* training available the day prior to the youth gardening workshops.
- Roger and Martha Quam's 6th Annual Garden Party: July 28, 2-5pm.
- Seeds Savors Exchange Tour: August 10th.
- MG Fall Update: September 27, 28 & 29 in Watertown, SD.

Master Gardener Notes

Volunteer Opportunities

Extension Office Flowerbed- Zoo Xeriscaping Project—Extension Office calls—Newsletter articles—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

Photo by Deb Wallin

Bottlebrush Buckeye

Aesculus parviflora

My first dramatic observation of the Bottlebrush Buckeye was at the Omaha Botanical Gardens. This magnificent specimen is the first plant you see as you entered the gardens and it was a great presentation and example of the plants that are yet to come when you visit.

Bottlebrush Buckeye is a great perennial shrub to fill a large area. This medium shrub is hardy Zone 4 to 8 and matures to 6 to 12 feet tall and 15 to 20 feet wide. The plant is multi- stemmed and the suckers form a colony, usually wider than tall. Overall, it provides a dense, high mound, which could be used as a great mass or screen for the garden.

The Bottlebrush Buckeye is best planted in full sun to partial shade; moist, well-drained soil; and prefers acid soil. The cultivar "Rogers" has flower spikes 18-30 inches long. These flower spikes have small, cream to white flowers with drops of orange red paint. The bottlebrush-like clusters appear in summer (July). They attract butterflies, hummingbirds and many other insect pollinators. After the summer flower bloom, brown pear shaped pods. The pods or nuts are poisonous.


Photo by Deb Wallin

Bottlebrush Buckeye is susceptible to leaf scorch, however, it known for retaining its foliage, in good condition, and well into fall. It is tolerant of disease and insects. The fall foliage becomes quite colorful with brilliant shades of golden yellow, depending on environmental conditions. The Bottlebrush Buckeye is excellent for borders, as a specimen plant, or under shade trees.

Sources:University of Illinois Extension & University of Texas at Austin

Youth Development in the Garden

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

When developing a garden-based learning program it is important to determine what subject matter and life skills you are intending to teach. Are your goals science, math and technology education? Would you like to incorporate literature and the arts? Many subjects can easily be taught while utilizing a garden space. Also consider the life skills that can be demonstrated to the youth participants. Skills of planning, problem-solving, leadership, teamwork, responsibility, sharing, communication, creativity, safety or record keeping can all be incorporated into your activities with some intentional planning.

A key for planning is to identify the age group that you will be working with. Focus on the characteristics of that age group and establish age and developmentally-appropriate goals for the activity. For example, in a planting exercise young children will have difficultly planting small seeds. For preschool students pea seeds could be laid out in a garden and the children could then come and push the seeds into the ground. Young elementary students may be able to place seeds by using a small pre-measured block to space and plant the seeds at the correct distance. Students in middle elementary could use a ruler to measure the distance between the pea seeds and older elementary could expand by planting a variety of seeds at various spacings.


www.colostate.edu

Consider the following principles for your garden program:

- Children are active learners. They will enjoy hands-on activities that allow them to see, touch and smell in the garden. Expect social interaction and promote play and cooperative activities.
- Set realistic goals and objectives for the age group. Remember that even though the age may be similar there will still be cognitive, emotional, social and physical differences among the children. If you discover wide variations, consider pairing older children with younger children or a 'hands-on' child with one who would rather observe.
- Provide activities and experiences that build, becoming increasingly more complex. Allow younger children to express themselves though pictures, while older children could journal. Break up activities into a series of small steps, completing one before moving to the next.
- Children need to be able to practice their new skills. Plan for repetition, especially if youth are under age 10, and reinforce learning by developing take-home activities or sending notes home explaining what the children did in the garden.
- Provide learning activities that are visual, auditory and tactile. Encourage students to use all their senses in the garden. Allow for tasting of washed produce or allow youth to prepare recipes in the classroom.

It is important to provide a variety of techniques to teach so that children with different learning styles will understand the subject matter. Always allow for reflection time or debriefing after each gardening activity.