From the Ground Up

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Garden To Do's

HOUSEPLANTS - If your houseplants vacation outdoors during the summer, it is time for you to bring them back inside before there is any chance of cooler fall evenings spoiling them. September is also the month to begin conditioning the Christmas poinsettias and Christmas cactus to get them ready for the upcoming holiday season. Both of these plants should be put in a spot which receives fourteen hours of darkness and ten hours of bright light each day. The poinsettias need a warm spot where temperatures range between 65 and 72 degrees, while the Christmas cactus needs a spot where the temperatures are a cooler 50 to 60 degrees. These temperatures and light exposure are inducing the development of the buds, flowers and colored leaf bracts.

BULBS - Fall is the time to plant bulbs, too! Spring flowering bulbs of tulips, daffodils, hyacinths and crocus are planted during the fall months of September, October and November. Select good firm, disease-free bulbs. Plant the bulbs three times deeper than the greatest diameter of the bulb. For example, crocus bulbs that usually have about a one inch diameter should be planted three inches deep. As you prepare the soil, add the correct amount of bulb fertilizer into the planting hole. Also, add a soil dust to protect the bulbs from soil borne insect and disease infestations.

LAWNS - September is one of the best months of the entire year for seeding or sodding new lawns. It is also a good time to overseed an old lawn with new lawn seed to help fill-in the bare spots and crowd out weeds and mosses. If the lawn needs thatching, it can be done during the early fall. Fertilize after thatching. It is a good idea to also over-seed the entire lawn, so the lawn recovers more quickly. If thatch is not a problem you may want to apply a fall or winter type of lawn fertilizer in September, October or November. Fall feeding encourages good root development.

WEEDING – Until we received rain in August, weeds were the only plants growing this summer. Now would be a good time to pull weeds before they have a chance to go to seed and flower again. Remember, too, that weeds are hosts to many insects and diseases; it is important to keep them under control.

COLOR SPOTS - If you want to add some color to the fall garden, buy and plant flowering kale, flowering cabbage and fall mums.

FALL VEGETABLES - This is a critical time for harvesting fruits and vegetables. It is so easy to over-look the ripening time of some types. Corn is a good example. If you let it go too far past its peak the corn looses a lot of its flavor. The same goes for apples, pears and plums. Check the different fruits and vegetables to see if they are ready. There are three basic ways to do this. One is by appearance, another by feel, and the third by taste.

For carrots, turnips, beets, and parsnips, you can skip harvesting for now. Instead, cover these root crops with about 18 to 20 inches of straw, hay, or dry leaves to protect them from frost and cold temperatures. At temperatures of 28 to 34 degrees F, the starch in these crops will turn to sugar. By covering with a thick mulch, you prevent the ground from freezing and can continue to harvest these vegetables through mid-winter.

SLUGS AND BUGS - Slugs are now laying their fall batch of eggs in clusters of up to fifty eggs. Each egg is about the size of a bb. They usually appear almost translucent in color, and are usually found along the edge of the lawn, or under sticks and stones.

PLANTING - Perennials can be started from seed this month. Scatter the seeds in a row or in open beds. Then the young seedlings can be transplanted into a permanent spot next spring.

This is also a good time to select and plant trees and shrubs. Fall planting encourages good root development and gives the plants a chance to get established before the spring growing season, next year.

Travel to Your Own Backyard - by Karin Woltjer

On Friday, August 17, my daughter and I traveled north to Brookings for the McCrory Garden Party at McCrory Gardens and South Dakota Arboretum. If you have not visited the Gardens in August (and we had not), you are in for a treat. The flowers were in their prime looking colorful and fresh as if they had just received a gentle rain. As Dr. Dave Graper, director of McCrory Gardens, states on the http://www3.sdstate.edu/Academics/CollegeOfAgricultureAndBiologicalSciences/HorticultureForestryLandscapeandParks/McCroryGardens/Index.cfm website, "The garden party is one of our best times of the year, as far as color in the garden. It's about their [annuals] peak time of year typically. For those who want to see some of the latest and newest plant materials, this is the place to come. It's nice to stroll through a garden on a summer afternoon, meet with friends and family, have some ice cream and enjoy the band. Visitors can enjoy a relaxing evening away from the usual day-to-day kind of stuff."

And he is correct. The Blue Garden, the Yellow Garden, the Ornamental Grasses and Entrance Garden are breathtaking. The Children's Maze, the five mountain ash in the Peony Garden, the trumpet vine in the Alcove Garden and the Great Lawn's lush green grass were outstanding. The lines for the ice cream cones were long (there was a big crowd) and many people relaxed to the jazz band.

In reading through the McCrory Gardens brochure, we find that *"development of the formal gardens at this site began in the 1960s. In 1966, work began on a two-acre formal area using annual, perennial and groundcover plants. An additional 10 acres was dedicated to woody ornamental research and instruction. These areas were open to the public at no charge. This formal garden site was subsequently name 'McCrory Gardens' to honor Professor S.A. McCrory who headed the Horticulture Department form 1947 until his death in 1964."*

All this is free as compared to the Chicago Botanic Garden entrance fee of $15 per car and $7 per person at Minnesota Arboretum. Even better, the gardens is in our South Dakota backyard.

Evergreens

When thinking about evergreen trees, do you find yourself humming Barbra Streisand's Evergreen Love Theme from A Star Is Born movie? Or do you find yourself thinking about the difference between evergreen and deciduous trees and when to plant them?

A **deciduous** plant loses all its foliage for part of the year becoming bare and leafless. An **evergreen** plant is a plant that retains its leaves all year round with each leaf persisting for more than 12 months. For example, ponderosa pine drops needles each year that are older than three years old. These older needles are the innermost ones toward the main trunk. Younger needles, further out on the branch, are retained until they are three to five years old. This annual browning and drop of innermost, older needles can cause concern, but it is a natural process.

Selection Evergreens are rarely available as bare root stock except as very small seedlings. They are usually available throughout the growing season as balled and burlapped or container-grown plants. When selecting plants at the nursery, be sure the foliage looks healthy and is not "off color". Once an evergreen needle is brown, it will not turn green again. Browning needles may be evidence of drought stress or disease. Because evergreens do not wilt like deciduous plants do, they often do not show symptoms of drought stress or diseases until long after the damage has been done.

Choose evergreen trees that have a single central leader and good branch structure. Inspect the trunk for damage or oozing sap. If possible, purchase trees that have not been sheared, as if for Christmas trees. Sheared trees will take several years in the landscape to regain their natural shape once regular shearing ends.

Planting Evergreens should be planted in spring, summer or early fall. While deciduous plants can be planted later in fall, evergreens benefit from having some time while the soil is relatively warm to start to become established. If evergreens are planted too late in fall, they will not be well-hydrated and may "burn" or brown during winter. This is due to moisture loss from foliage that cannot be replaced by the roots. September and early October are good times for planting.

Most evergreen trees rarely require any pruning provided they are planted where they have adequate space to grow. Evergreen shrubs can sometimes benefit from regular pruning that keeps them from getting bare and overgrown. Most evergreens, other than pines, are best pruned before spring growth begins. They can also be pruned in mid-summer, when they are "semi-dormant".

Pines (*Pinus*)

Avoid shearing evergreens unless they are part of a formal garden or hedge. Maintain the natural form of the shrub by heading back the longest shoots to a natural spot or vigorous bud. Unlike deciduous plants, evergreens do not readily sprout from a cut branch. Be sure to not make any "holes" in the plant's structure when pruning because it may take several years to fill in.

Pines rarely require any pruning. To reduce growth and limit plant size, you can remove up to 2/3 of the length of "candles", or new, soft growth in late spring. Mugo pine shrubs can also be sheared regularly for a very formal effect. However, this should only be done as part of an overall formal design because as they will look out of place in an naturalistic landscape.

Junipers (*Juniperus*)

Upright junipers can be pruned into formal shapes. If trying to control the shape or size of the plant, pruning should be done each year by removing 2/3 of the new growth. Spreading and creeping junipers can be kept looking their best by removing two or three of the longest, thickest, most vigorous branches each year. Cut back to the next main stem to encourage young growth. If branches are allowed to get thick and a lot of woody stems are visible, they can be cut back to the base. However, it will take several years for new growth to fill. Always maintain the horizontal form of creeping and spreading junipers, and do not shear in a formal way.

Yews (*Taxus*)

Yews typically have two flushes of growth each growing season. They are best pruned in spring, before growth starts, and again in mid-summer. They can be sheared formally if part of a formal landscape, or they can be selectively pruned to maintain a natural form and keep plant size smaller and vigorous.

Arborvitae should be pruned in early spring or mid-summer. Over-grown plants can be severely cut back and re-shaped, but will take several years for new growth to be produced and fill in. While arborvitae can tolerate formal shearing, they can also be left unpruned if enough space is available.

Arborvitae(Thuja)

Spruce are rarely pruned unless growth is too rapid and the size must be limited. Prune unbranched tips of side branches back by 2/3 their length. This will help keep the tree from getting wider. If the central leader of a spruce or fir is damaged or destroyed, you can encourage a new leader to form. Trim back the damaged leader to about 2 inches above the first side shoot. Carefully tie one side shoot to the stub of the old leader so that it is pointing upward. Over time, the side shoot will take over as the central leader. If there are two leaders forming, prune away the smaller, weaker one. *Continued on next page*

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Phone 605-367-7877, Fax 605-367-4609

Spruce (*Picea*)

Continued from previous page….. **Watering** Newly planted evergreens should be watered regularly during the first year after planting. They should be soaked by rain or supplemental watering once a week or more during hot, dry weather on sandy soils. Keep watering right up until the ground freezes usually in late November or December. It is IMPORTANT that evergreens are fully hydrated going into winter. Because evergreen foliage is retained through winter, it is exposed to drying winter winds. With frozen ground and roots, plants cannot replenish that moisture and can "burn" by spring.

Most evergreens require well-drained soil, and overwatering them will result in stress and damage to roots. Feel the soil near the shrub about 1-inch deep. If the soil feels dry, thoroughly soak the soil around the root zone. Avoid overwatering because it can be just as harmful as underwatering. Plant roots need oxygen as well as water. Too much water fills the air pockets between soil particles and creates an anaerobic environment. This can result in root rot and an environment favorable to other pathogens such as fungi and bacteria.

Mulching Applying organic mulch around the base of evergreens can help retain moisture, control weeds, moderate soil temperature, and give a nice appearance to the landscape. Most any organic material can be used as mulch including shredded wood or bark, wood chips, pine needles, cocoa bean hulls, straw, ground corncobs, or any other available organic matter. To be effective, mulches should be applied so that when settled, it is 3-4 inches deep. Pull mulch away from the trunk or stem of the plant. Mulch left against the bark can cause moisture buildup which can rot the bark as well as provide a nest for insects and mice. Do not create a "volcano" of mulch around the trunk, but instead place the mulch in a "donut" form. Do not use a landscape fabric or plastic when using organic mulches.

Fertilizing Evergreens should be fertilized in early spring or late fall. Depending on the results of your soil test, a high nitrogen fertilizer is usually best, such as 12-6-3 or 16-6-6. Follow package instructions for what rate to apply; usually a rate of 1/3 pound per foot of height or spread is appropriate. Dig the fertilizer into the soil around the base of the plant, being careful to not damage any roots, and always water well after application.

Mature, large evergreen trees rarely need fertilizer. However, if they are showing nutrient deficiency symptoms, such as off-color needles, fertilizer might be helpful. You can also bore holes in the soil around the tree 12-15 inches deep, and divide the recommended amount of fertilizer amongst the holes. Fill the holes with sand or soil, and water well. A common misconception is that evergreens need acid soil to do well. A neutral pH in the 6 to 7 range is ideal for most evergreens. Unless your soil has a high pH, it is not necessary to use an acid fertilizer on your evergreens. However, a high pH, such as 7.8 or higher, can cause some evergreens such as white pine to become chlorotic because they are not able to take up iron from the soil.

Winter Protection To help evergreens survive through the winter, be sure to plant species that are hardy for the area. **Water evergreens and all plants up until the ground freezes.** Evergreen needles are exposed to drying winter winds and must be well-hydrated throughout the winter months. Dehydration may result in burning or browning of the needles by spring.

The buildup of ice or heavy wet snow may cause damage to evergreens during winter. However, freezing rain buildup on evergreens will not harm them in the long run. Branches may sag, but they are typically flexible enough to withstand the weight and will bounce back once the ice or snow melts or falls off. If ice buildup is less than 1/8 inch thick, it is best to leave it alone and avoid the risk of damaging branches while trying to remove the ice.

In cases of extreme ice buildup where there is a risk of branches breaking because of the weight, it is helpful to carefully remove some of the ice. Use a rake handle to gently tap the branches to remove some of the ice. You do not need to remove all of the ice, just enough to eliminate the threat of breakage because of the weight of the ice. Avoid using ice-melting salt around evergreens because it can cause damage both from spraying on the foliage and from building up in the soil.

Taking the "Labor" out of Post Labor Day Gardening

There are many ways that gardening becomes easier as the summer winds down. Because grass is growing more slowly, you will not need to mow the lawn as often as you did in the summer.

You can put a fertilizer on trees until after the leaves drop so you don't encourage tender growth that is killed by the winter cold.

There are a few tasks you can do now to save on labor in the spring such as having your soil tested. Kits are available payable by visiting the Minnehaha County Extension Office and picking one up; you pay for testing when you submit your sample. Another task to consider is maintenance on your tools like your chain saw and mower. If you need to ship out your mower for maintenance, the mechanic may be able to turn out the mower faster now than in spring and summer.

This is also the time to start looking for bargains and sales on the tools that are 'so last season' like a good pair of gloves on sale. Fall is also a time when there are sales on pots and garden art.. Your nursery or garden center also will have more time now to answer your questions and work with you to plan out next year's gardening needs from landscape design to new equipment.

Since you are saving time on everyday gardening chores, this is a good time to tackle new projects like a new garden path or perennial bed. Plants added in the fall often get a better head start than those planted in the heat of summer. Not only are the temperatures cooler, but rainfall is more reliable.

Odds and Ends

By Crystal Stewart/ Extension Educator/Horticulture

Q: We have Canadian thistles in our church flowerbed and lawn. Can I spray 2, 4-D on them?

A: There are two good ways to kill thistles in the fall. You can apply a non-selective herbicide with glyphosate to the rosettes. Be very careful not to damage surrounding plants when applying the products, because they will kill ***all*** plants. In the lawn you can use products that selectively kill broadleaf plants. The best combination of active ingredients is 2,4-D, dicamba, and MCPP. Apply after a light frost for best control.

Thanks to everyone for reading this newsletter. In the future you may see a new educator giving the last word because I am moving to new York to work for Cornell. Happy gardening to you all.!

Sincerely,

Crystal Stewart
Extension Educator/Horticulture

MINNEHAHA COUNTY EXTENSION OFFICE
220 WEST 6TH STREET
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