



Joseph J. Julian
Horticulture Agent

Fall 2009

October, November & December

Calendar of Events

Oct 15th – Master Gardener Apps Due
Oct 23rd – CSUE Advisory Council
Nov 11th – Veteran’s Day*
Nov 26th & 27th –Thanksgiving Break*
Dec 25th – Christmas Observed*
Jan 1, 2010 – New Years Day*

* Government Holiday – Extension Office Closed

EXTENSION ADVISORY COUNCIL MEETING

There will be a meeting of the Colorado State University Extension (CSUE) Advisory Council in Douglas County on Thursday, October 23rd at 5:30 p.m. at the CSU Extension Office, 410 Fairgrounds Rd. in Castle Rock.



COLORADO MASTER GARDENER PROGRAM

By Joe Julian, Horticulture Agent, CSU Extension Douglas County

MASTER GARDENER
APPLICATIONS BEING ACCEPTED
NOW

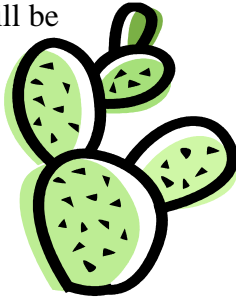
Do you enjoy gardening? Do you like helping people with their gardening questions? Do you want to learn about planting trees, growing a vegetable garden, successfully growing turf, and recognition and management of insects and diseases on your plants? Then the Colorado State University Master Gardener Program in Douglas County may be the place for you!

The CSU Extension Office located on the Douglas County Fairgrounds is accepting applications for the 2010 Master Gardener Training Program. Here are some details about the program:
*Applications are available at the CSU Extension Office. You can receive an application by either calling our main number (720-733-6930) or emailing us

at dccsue@douglas.co.us. The application deadline is **October 15th**.

*The cost for taking the program is \$175 which includes your Master Gardener Manual, and provides for other administrative costs associated with the program

* An interview process will be conducted by members of the Douglas County Master Gardener Advisory Council to decide if the Master Gardener program is a good fit for the applicant and for the local program.



Interviews are required before any applicant can be accepted.

* A background check is required by Colorado State University and is part of the application process.

* Three references are required as part of the application process

* Classes are held in both Douglas and Arapahoe Counties – shared sites by the two counties. Elbert County’s Master Gardeners also attend at both sites. Please be sure to apply to the Master Gardener Program where you reside.

* Classes are held on Tuesdays, during the day from 9 am – 4 pm. It is imperative that the applicant can attend all training sessions as each topic is covered intensely during that 6 hour period of time.

* Classes are on How Plants Grow, Diagnosing Insects and Diseases, Turfgrass, Water Wise Landscaping Design, Plant Pathology, Entomology, Soils and Fertilizers, Tree Planting, Weed Management and more!

* For more information, please contact Joe Julian at 720-733-6951

The Douglas County Master Gardener Program is a fun group of about 120 people and there is always room for more! So.....if you have the time and think this program is right for you,

we can determine if the program is right for you!

SUCCULENT & CACTI PLANTS

Succulent plants and cacti are great for indoor gardeners in Colorado. Plants that store water in their leaves or stems are described as ‘succulent’. The cactus is one family of succulent plants. Cacti differ from other succulents by having small cushions or ‘areoles’, on which the spines are grouped. Colorado’s dry climate mimics the desert and is an asset for this type of plants ability to store water.

There are many different groups of succulents and each group needs a little different requirement to make them thrive. As a whole, the soil for succulent plants should be loose and drain well. Waterlogged soil is a sure fire way to kill your succulent plants. There are many different types of soil mixtures available. They range from compost to peat based and recycled garden composts. You may need to do some experimentation to find the best mixture for your microclimate.

Selecting a pot can be difficult for succulents. The first rule of thumb is to never over- pot. Over-potting refers to placing a small plant in a large pot. This practice results in the larger pot retaining too much moisture, and can cause plants to become infected by organisms that breed in moist soil. Clay or plastic pots may be used for planting. Clay pots dry out quicker than plastic pots, they are heavier and can be used for stability for taller plants, and they allow soil air exchange through the porous clay. Plastic pots tend to be lighter, cheaper, require less watering, and are easy to keep clean. Both types of pots can be equally successful so it is a matter of

personal taste. Ideally the soil should dry out about once a week. You can determine if the plant needs re-potting if the root ball fills the pot, if the plant becomes squashed against the sides, or if a plant grows well one year but not the next. To determine if your plant needs repotting due to the root ball, gently turn the pot upside down and tap. The pot should lift off the root ball. Make sure when re-potting not to over-pot and to add new compost or organic matter. Repotting a prickly cactus may be difficult, wrap a roll of newspaper or paper towel around the sides of the plant. This will protect your hands from spines. If you have trouble removing the material after transplanting, wet your material and peel off. Small bits left over can then be removed with tweezers.

Proper watering is the key to successful succulents. Succulents watering requirements depend on the temperature, season, pot type, and type of succulent. In general succulents should be watered about once a week in the summer. As the weather cools, increase the interval between watering. Each time you water make sure to thoroughly wet the soil. Soil should dry out between watering. In the winter many succulents “rest”, requiring little to no water. This depends on temperature and light levels. If you grow your succulents inside on a windowsill they will still require some water during the winter.

You should also check your water quality. If your water is alkaline or contains salts, and additives such as chlorine, they should be avoided. Water test can be done by Colorado State University. Contact your Extension office for an order form and directions.

Cacti and Succulents thrive when fertilized. Fertilization should be done about every other watering. A balanced fertilizer works better than an

unbalanced one such as a fertilizer, which has a high Nitrogen number. When reading the three numbers on fertilizer they stand for Nitrogen, Phosphorous, and Potassium respectfully.

The enthusiastic succulent and cacti grower may choose to join the Cactus and Succulent society. The Colorado branch meets on the second Tuesday of the month at the Denver Botanic Gardens at 7:30 p.m. More information on their organization may be obtained by visiting their web site <http://www.ccss-online.org/>

RUSSIAN OLIVE **I**NVASION

By Susan Hardin, Colorado Master Gardener Douglas County



Did you know we have a problem? Wildlife is being threatened and native plants are being displaced. Russian-olive (*Elaeagnus angustifolia*)

is actually an aggressive, state-listed noxious weed taking over riparian habitats throughout the Western United States. Currently there are 10,000 acres in Colorado covered by Russian-olive, and at least another 17 states are in the same situation. This plant is particularly a problem around waterways including rivers, irrigation canals and reservoirs and is a real problem in river drainages such as the South Platte, Colorado, Uncompaghre, Gunnison and White Rivers. This past Arbor Day, eighteen volunteers helped eight Douglas County staff members plant 31 trees and 15 shrubs at Taos Open Space to replace 92 Russian-olive trees previously removed. Although many find the Russian-olive attractive (dark bark and light foliage), it is just a demon in disguise. Originally,

Russian-olive was considered appropriate wind break material and habitat for wildlife, particularly adaptable for common bird species like starlings and robins. After wildlife biologists completed more in depth studies, it was discovered that many native birds inhabiting riparian areas do not live in Russian-olive infested sites. Cavity nesting birds, such as woodpeckers and chickadees, cannot excavate nests in the small limbs or hard wood. Insect-feeders such as warblers



find little food, because unlike native trees, Russian-olive does not support many insect varieties.

Seeds are spread in many ways, but mostly by birds that eat them and pass them through their digestive tracts. The seeds can end up a mile or more from the parent tree, but by removing the seeds it can slow the spread. Russian-olive seeds germinate in both open sites and beneath native trees. When abundant light is available, the seedlings grow very fast and tolerate a wide variety of soil and moisture conditions. Native trees do not grow in the shade of this invader, resulting in a transition where the Russian-olive is the dominant tree species. This displacement of native plants decreases natural diversity and reduces bird and animal habitat. The Colorado Department of Agriculture made the decision to declare Russian-olive a “noxious weed” and prohibit its sale in the state. Purchasing Russian-olive from out-of-state mail-order nurseries would violate Colorado weed legislation, which prohibits not only the sale within the state, but also the procurement and planting of a listed noxious weed. Removing Russian-olive and planting more desirable species that benefit the environment and sustain wildlife is the way to go. Some excellent alternatives are:

- Silver Buffaloberry (*Shepherdia argentea*).

- Peach Leaf Willow (*Salix amygdaloides*)
- Chokecherry (*Prunus virginiana*)
- Wild Plum (*Prunus americana*)
- Cottonwood (*Populus* ssp.)

These substitutes can have some of the same look or feel as the Russian-olive, but are better suited to this area and are not noxious weeds. Education is the key, so pass the word along!

EXTENDING FALL

By Kimberleigh Anders, Colorado Master Gardener Douglas County

Preserving Leaves with Glycerin

Extend autumn’s beautiful colors by drying leaves with glycerin. It is easy and the leaves last two to three years, not just a season. Take a walk and collect the leaves right from the plants, not from the ground. Use leaves that have not weathered a frost this season; the process will not work on leaves that have seen a frost. They should be pliable without any imperfections. The glycerin darkens the colors, so take that into account when making your selections. Yellow leaves respond best.

Combine 1 part glycerin to 2 parts water. Pour the solution into a flat pan, place the leaves in the solution, and then put a weight on the leaves, such as a slightly smaller pan, to keep them submerged.

Start checking in 2-3 days. It can take up to a week for some leaves. They should be soft and pliable. If they still feel like dry leaves, leave them in the solution for another few days.

When they are pliable, remove from the solution and blot dry.

Stiff, waxy leaves yield the best results when preserved with glycerin. Examples of trees that preserve leaves well

utilizing this process include beech, boxwood, holly, and maple.

PUTTING YOUR GARDEN TO SLEEP

Once we have a hard frost it is time to think about putting your garden to bed. There is always a large debate on whether or not to cut back your perennials. If there is any sign of disease it is a good idea to cut back the perennials. This step will eliminate part of the disease cycle by getting rid of inoculum. Inoculum is the tiny spores that spread diseases. It is also a good idea to get rid of falling foliage of diseased trees. The easiest way to prevent the spread of disease is to get rid of infected material. Another reason you may cut back perennials is because many people believe that it restores tidiness. Cut back the plants to within 2-3 inches of the crown. The crown of the plant is where plant growth meets the ground. Cutting too close may result in winter injury. All material that is not diseased can be added to the compost heap. I think that perennials are better left standing over the winter. They add wonderful winter color, including interesting seed heads, attractive foliage, and when the plants catch snow they are stunning. Leaving perennials gives birds a place to hide during the winter months, and sometimes gives them a food source. Leaving the stems of perennials also provides the plant with additional shelter, which can aid in the overwintering of partially hardy perennials. And last but certainly not least, leaving the perennial prevents accidental digging in the area that could potentially kill the plant. If you decide to wait to cut back your perennials you should cut them back in early spring. When cutting back in early spring be careful not to damage new shoots.

Fall is also a great time to clean garden tools for winter storage. Clean the soil from your tools. Did you know that you should also sterilize your equipment? Sterilizing your garden equipment will help prevent the spread of diseases. It is a great time to sharpen lawn mower blades and pruners. A dull mower blade can damage leaf blades and give your lawn a brown undertone.

Make sure that you drain your hose and underground sprinkler system. Draining will prevent water from freezing inside your hoses, which can cause cracks and holes.

Mulching your garden is probably the best thing you can do for it. Providing some sort of mulch will act as a buffer between air and soil temperatures. This helps to moderate the soil's fluctuating temperatures and allows for more gradual cooling and warming, rather than sudden freezing and thawing. This sudden freezing and thawing can cause frost heaving. Frost heaving is when the freezing and thawing actually causes your plant to be forced upward and out of the soil. Mulching also increases the humidity, which is needed for plant growth, and which Colorado seriously lacks.

Believe it or not, fall is also the season that you begin planning for next year. Make sure that you take pictures of your garden and also make notes of what you liked and didn't like. Make note of what needs to be divided, this will help you tremendously in the spring. These notes and pictures will get you through the winter and help you dream of spring again.

BULB SPOTLIGHT – STAR OF PERSIA

By Kimberleigh Anders, Colorado
Master Gardener Douglas County

The common name for this showy bulb references this as a star and that's certainly the case. Star of Persia (*Allium christophii*) blooms are immense, and can be up to a full 10-12 inches across or about the size of a soccer ball.

Consisting of hundreds of tiny, metallic blue-purple star-shaped florets, the flowers are spectacular. These bulbs are in the onion family and are hardy in our Denver area. The height is 18-14 inches; spacing should be 6-9 inches and planted in full sun. If your garden needs a late spring/early summer focal point plant a couple dozen. As if this wasn't reason enough to grow them, these flowers dry beautifully and hold their form for years. Dried flower heads are strong architectural elements, in the garden or in a tall, simple vase.

Star of Persia is deer and rodent resistant and is attractive to bees, butterflies and birds. Plant bulbs after the first killing frost in the fall 8" deep in rich, well-drained soil. Be sure to choose a prominent location in your garden.

WINTER WATERING

By Kimberleigh Anders,
Colorado Master Gardener Douglas
County

Winter watering will be a crucial step to promote plant health this spring.

Applications of water in the winter may allow a tree to survive on less water than a regime of plentiful water applications during the growing season. The roots of trees, shrubs, and perennials do not die in the winter and still require moisture to survive. Newly established lawns are especially susceptible to damage during a dry fall and winter weather. Damage

may include plants that look normal and resume growth in the spring only to weaken or die in late spring or early summer. Weakened plants are also very susceptible to insect and disease problems.

Where are the roots and what do they do?

Roots are responsible for anchorage as well as water and nutrient absorption and storage. Most roots responsible for the uptake of water and nutrients are located in the top 12 inches of soil. Tree roots can expand anywhere from two to four times the height of the tree once established.

When should you water?

All winter watering should occur when the temperatures are above freezing, 50 degrees Fahrenheit is ideal. The earlier in the morning you can water the better. Do not water in the early evening as temperatures are dropping, this can result in freezing temperatures and make your winter watering ineffective or worse could damage plants by having water freeze damaging bark, and roots. Heavy coatings of ice on turfgrasses can cause suffocation or result in matting of the grass.

Where do I water?

Newly planted trees or trees that have been transplanted in the last two years are still developing their root systems. These trees will require more water because they have lost a majority of their root system when they were transplanted. They should be watered in rings around the trunk, as that is where the root ball is located. Established trees should be watered within the drip line to two feet outside the dripline. The drip line is located under the canopy of the tree or where the branches cover. Shrubs should be watered within the drip line also. Special care should be given

to lawns with south or west exposures, which tend to dry out more quickly.

How often and how much should I water?

Watering should be done about once or twice a month depending on snow cover and overall humidity. A small established shrub needs about 5 gallons of water monthly while a large shrub may require up to 18 gallons of water, this is directly proportional to the size. The amount of water a tree needs is directly proportional to the trunk diameter and the root system. A complete chart with tree diameter, type of irrigation and time needed is available at www.watersaver.org

Watering for very short increments of time encourages shallow root systems and causes your plant to dry out quickly requiring more water. However, if you have a very sandy soil or the plants are located on a slope, watering times should be cut down to let water soak into that 12 inches of soil and reduce runoff and unused water.

After winter watering be sure to flush out your hose to reduce damage from freezing.

What is the advantage of deep root watering systems?

Deep root watering systems can be very effective in getting water deeper into the root system. However, incorrect use of highly pressure water can blast an air pocket into the soil causing roots to dry out quicker. Place your hose on a slow trickle and test before inserting into the ground.

WINTERIZING WITH **MULCH**

Mulching provides the best protection for your perennials during the winter.

Mulches do a better job of insulating plants when space is allowed for air to circulate. Mulch that packs down to a dense mass during winter can cause mildews and molds to form. Shredded leaves from deciduous trees and pine boughs from discarded Christmas trees offer great winter protection. Good organic compost used as mulch is also effective and can be used as a soil amendment in the spring.

Mulches used to enhance appearance and control weeds may be applied at any time. You can protect fall transplants by applying a mulch layer soon after placing the plants. The mulch will keep soil temperatures above freezing longer into the fall, thus permitting better root growth.

Established perennials and bulbs benefit from mulches that are applied after the ground freezes, because mulches don't allow soil temperatures to fluctuate as much throughout the winter. This helps with the heaving seen so often with bulbs.

Except where weed-barrier fabrics are used alone or in combination with chips, stones or other material, apply most mulch to a depth of 3 to 4 inches. Apply straw, dried leaves and similar materials to a depth of 4 to 6 inches.

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