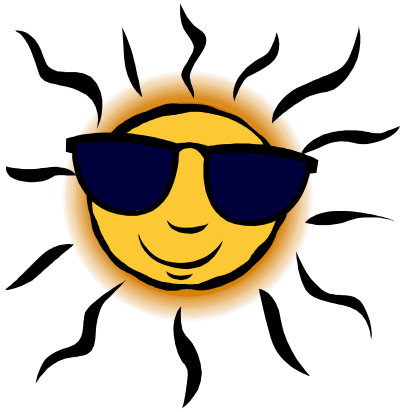
Colorado State University Extension – Elbert County Master Gardeners

"Lett-uce" Inform You

June 2010



It's County Fair so let's have some "Hot Fun in the Summer Time"

In this Issue

Your Elbert County Master Gardeners will be at the Elbert County Fair again this year from August 5th to August 8th, 2010. Master Gardeners will be available from 9am - 4:30pm on each day to help with your needs and answer your questions. Please feel free to stop by our booth to ask questions about gardening, such as those pesky weeds you just can't seem to get rid of or the bug eating your favorite flower or vegetable. You can also buy gardening or weed books and pick up free brochures.

While you are enjoying the fair, please take a minute to stop by the Extension Office to see how well the Plant Select® flower garden has grown this past year and to see the new Plant Select® flower garden we planted this summer.

The Master Gardeners will once again be offering a silent auction to raise funds for this great program. As most of you know from our previous auctions, we will have a lot of nice items for you to bid on. Bidding will close at **noon** on August 8th. If you are still at the fair after that time, you might want to stop by to see if you are the winning bidder. If not, we will call all winners and you can pick up your item at the Extension Office in Kiowa.

See you at the fair!!!

Plants for your Garden: The Colorado 2009 Plant Select® Program

by Audrey Steffan,
Colorado Master Gardener

Prairie Lode Sundrops
Calypohus serrulatus 'Prairie Lode'

Everyone wants a perennial that is easy to grow, undemanding in its cultivation requirements and, of course, blooms all summer. This 'Prairie Lode' is the answer to all.

Calylophus serrualtus Sundrops begins to flower in early May and continues to flower throughout the season well into fall. 'Prairie Lode' provides a continual and spectacular display with a minimum of care and irrigation. 'Prairie Lode' develops into a small shrublet with bright yellow, four-petaled flowers that emerge from large orange buds. This plant thrives in a wide range of conditions, particularly in hot and dry areas. The small shrublets are best cut back to the ground in the spring so the plants will be more compact and floriferous. It is a great plant for rock gardens, dry border fronts or prairie areas. This plant is about 6-8 inches high and about 12-15 inches wide and likes full sun or part shade. It needs little or no irrigation once established and is in the USDA zone 3-9.

Snow Mesa Buckwheat
Eriogonum wrightii var. *wrightii*

This long lived gorgeous wildflower is a native from the Chihuahuan grasslands of the Southwest. This is a tough little plant that does well with neglect. The plant likes being in lean soil, unenriched by compost or fertilizers. Keep this xeric plant dry and you will be rewarded with blooms from August to November. If it is in too rich of soil or watered too much it can grow to be floppy. As the snowy white flowers age through the fall they turn russet, adding wonderful color to your garden.

This plant is a perfect complement for Rabbitbrush, Russian sage and Sunset hyssop.

This plant gets approximately 18-20 inches high and 18-24 inches wide. It wants full sun and dry conditions with a Hardiness USDA zone of 4-9, up to 8,000'.

For additional information or to find retailers that carry the Plant Select® plants, visit their website at PLANTSELECT.ORG.

Medicinal Herbs in the Garden: Sage

by Laurie Wasmund,
Colorado Master Gardener

Almost every property owner in Elbert County is familiar with sage. It grows in fields, along roadways and drainage ditches, and, at times, in our gardens. Also known as Salvia, sage is the largest genus of plants in the mint family. It is estimated that there are about 700-900 species of sage, occurring as shrubs, herbaceous perennials and annuals.

The botanical name for sage, Salvia, comes from the Latin for "to save or to heal," and is closely associated with salvation or immortality. Perhaps this is because the oil of the sage plant contains antioxidant and antimicrobial agents, which kill bacteria and prevent infection.

Sage has been used in cooking since the 5th century BC, and is believed to be a digestive aid and appetite stimulant. It is also an antispasmodic, which reduces gas and abdominal cramps and bloating.

The oils and tannins in sage have astringent and antiseptic properties. It is often used to treat mouth sores or ulcers, gingivitis, and as a medication for sore throat. Because sage has moisture-drying qualities, it is also used to treat colds and coughs or tonsil infections, and is even used as an antiperspirant.

Sage can also be applied as a compress on cuts and wounds. It contains phytosterols, which are reported to have a cooling action and can be used to treat ailments that do not respond well to heat. For this reason, it is also used as an after-shave.

Medicinal Herbs in the Garden

(Continued from page 2.)

In studies in England in 2003, scientists discovered that sage oil extracts helped improve memory in patients with Alzheimer's disease. Although more research needs to be done, it is believed that sage stimulates key chemicals in the brain that are blocked by the disease.

The most common way to ingest sage as an herbal remedy is by brewing sage tea. The leaves are dried and often mixed with mint, lemongrass or other herbs to cut the strong flavor of the sage. Another form of medicinal sage is tincture, which is taken in small dosages.

Remember, all information about the medicinal properties of herbs in this and other such articles and websites is for educational purposes only. Many herbs historically used for medical purposes are considered too toxic to use today. Always consult a trained medical professional before ingesting any medicinal herbs.

Common Mullein

by Andrejs Tobiss
Colorado Master Gardener

More than thirty years ago we had an old mining area property with some empty lots next to it. The spring mountain flowers always looked great. Later in the summer there were several single, stout, erect, four or so feet tall stems. They looked fairly nice and we let them grow. Local people called them miner's candles. For years, it seemed that a few more showed up and the old ones became brown stems.

We do not have the property anymore, but we do have occasions to drive by the old place. We also now know that these plants are called mullein. Now the property is overrun with them, making it somewhat ugly. The present owners do not seem to know or do not care that mullein is a weed and should be eradicated.

Mullein is biennial that produces a large, thick rosette of fuzzy leaves the first year and a single, stout, erect stem 2 to 6 feet tall, the second year. The leaves are alternate, overlapping one another; light green, and densely wooly. Flowers are borne in long terminal spikes, yellow, 5-lobed and more than an inch in diameter. Fruits are 2-chambered with numerous, small, angular, brownish seeds, 1/32 inch long.

Mullein is a common sight along river bottoms, in pastures, meadows, fence rows and waste areas, especially on gravelly soils. Because of the large number of seeds produced by each plant, it is difficult to control. New plants may be germinating for years and years. Flowering and seed production occur from June to August. Livestock will not eat the plant because of its wooliness.

First line of defense is to prevent the plants from flowering and seeding. The tops may be cut or the plants pulled before it flowers. If the top of the plant is cut too early, the plant will regenerate a new top with several branches. It should also be recognized that full control will take years as the ground may be full of seeds. Large areas with serious infection may need mechanical means or chemical control. For chemical control, care must be taken that appropriate instructions are followed.

And The Beet Goes On!!

by Steve Delgadillo
Colorado Master Gardener

Ah, the **beet** (***Beta vulgaris***) is a plant in the amaranth family. I enjoy very much, either cut Julianne, and served over salad, or sliced in circles and pickled. It seems in my family, at least, that the men are particular to beets, while the women are not. How is it in your family? Do you know the history of beets, the medicinal value?

The beet has a long history of cultivation stretching back to the second millennium BC. The plant was probably domesticated somewhere along the Mediterranean, and later spread to Babylonia by the 8th century BC and as far east as China by 850 AD. (continued on page 4)

And The Beet Goes On!!

(Continued from page 3)

Beta vulgaris is an herbaceous biennial or rarely perennial plant with leafy stems growing to 1–2 m tall. The leaves are heart-shaped, 5–20 cm long on wild plants and often much larger in cultivated plants. The flowers are produced in dense spikes, each flower very small, 3–5 mm diameter, green or tinged reddish, with five petals; they are wind-pollinated. The fruit is a cluster of hard nutlets.

The usually deep-red roots of garden beet are eaten boiled. A large proportion of the commercial production is processed into boiled and sterilized beets or into pickles. In Eastern Europe beet soup, such as cold borscht, is a popular dish. Yellow-colored garden beets are grown on a very small scale for home consumption.

Beetroot can be peeled, steamed, and then eaten warm with butter as a delicacy; cooked, pickled, and then eaten cold as a condiment; or peeled, shredded raw, and then eaten as a salad. Pickled beets are a traditional food of the American South. It is also common in Australia and New Zealand for pickled beetroot to be served on a hamburger.

Beets are an excellent source of the B vitamin, folate, and a very good source of manganese and potassium. Beets are a good source of dietary fiber, vitamin C, magnesium, iron, copper and phosphorus.

These colorful root vegetables contain powerful nutrient compounds that help protect against heart disease, birth defects and certain cancers, especially colon cancer. The pigment that gives beets their rich, purple-crimson color, *betacyanin,* is also a powerful cancer-fighting agent. Beets' potential effectiveness against colon cancer, in particular, has been demonstrated in several studies.

In stomach cancer patients, when scientists compared the effects of fruit and vegetable juices on the formation of *nitrosamines*, cancer-causing compounds produced in the stomach from chemicals called nitrates, beet juice was found to be a potent inhibitor of the cell mutations caused by these compounds.

Beets also protect against heart disease. Protective antioxidant activity increased in the livers of beet fiber-fed animals and their total cholesterol dropped 30%, their triglycerides dropped 40% (elevated triglycerides, the form in which fats are transported in the blood, are a significant risk factor for cardiovascular disease), and their HDL (beneficial cholesterol) level increased significantly.

Beets are particularly rich in the B vitamin folate, which is essential for normal tissue growth. Eating folate-rich foods is especially important during pregnancy since without adequate folate, the infant's spinal column does not develop properly, a condition called neural tube defect. The daily requirement for folate is 400 micrograms. Just one cup of boiled, sliced beets contains 136 micrograms of folate.

Beets' sweet taste reflects their high sugar content, which makes beets an important source for the production of refined sugar. Raw beet roots have a crunchy texture that turns soft and buttery when they are cooked. Beet leaves have a lively, bitter taste similar to chard. The main ingredient in the traditional eastern European soup, borscht, beets are delicious eaten raw, but are more typically cooked or pickled.

The greens attached to the beet roots are delicious and can be prepared like spinach or Swiss chard. They are incredibly rich in nutrients, concentrated in vitamins and minerals as well as carotenoids such as beta-carotene and lutein/zeaxanthin.

Choose small or medium-sized beets whose roots are firm, smooth-skinned and deep in color. Smaller, younger beets may be so tender that peeling won't be needed after they are cooked. Avoid beets that have spots, bruises or soft, wet areas, all of which indicate spoilage. Shriveled or flabby beets should also be avoided as these are signs that the roots are aged, tough and fibrous. While the quality of the greens does not reflect that of the roots, if you are going to consume this very nutritious part of the plant, look for greens that appear fresh, tender, and have a lively green color.

Unwashed beets can be stored in the refrigerator crisper for two to four weeks. Cut the majority of the greens and their stems from the roots, so they do not pull moisture away from the root. Leave about two inches of the stem attached to prevent the roots from "bleeding." Store the unwashed greens in a separate plastic bag where they will keep for about four days.

Raw beets do not freeze well since they tend to become soft upon thawing. You may freeze cooked beets; they'll retain their flavor and texture. Beets are suited to long-term storage if kept at temperatures near freezing and with high humidity to prevent wilting.

Cook beets lightly. Studies show beets' anti-cancer activity is diminished by heat. Don't peel beets until after cooking. (Continued on page 5)

And The Beet Goes On!!

(Continued from page 4)

When bruised or pierced, beets bleed, losing some of their vibrant color and turning a duller brownish red. To minimize bleeding, wash beets gently under cool running water, taking care not to tear the skin since this tough outer layer helps keep most of beets' pigments inside the vegetable. To prevent bleeding when boiling beets, leave them whole with their root ends and one inch of stem attached.

Beets' color can be modified during cooking. Adding an acidic ingredient such as lemon juice or vinegar will brighten the color while an alkaline substance such as baking soda will often cause them to turn a deeper purple. Salt will blunt beets' color, so add only at the end of cooking if needed.

Since beet juice can stain your skin, wearing kitchen gloves is a good idea when handling beets. If your hands become stained during the cleaning and cooking process, simply rubbing lemon juice on them will remove the stain.

Grate raw beets for a delicious and colorful addition to salads or decorative garnish for soups. Add chunks of beet when roasting vegetables in the oven. Serving homemade vegetable juice? A quarter of a beet will turn any green drink into a sweet pink concoction, pleasing both the eyes and the taste buds. Sauté beet greens with other braising greens such as chard and mustard greens. Marinate steamed beets in fresh lemon juice, olive oil, and fresh herbs.

If you start to see red when you increase your consumption of beets, don't be alarmed. You're just experiencing *beeturia*, or a red or pink color to your urine or stool. No need to panic; the condition is harmless.

Beets (notably beet greens) are among a small number of foods that contain measurable amounts of oxalates, naturally-occurring substances found in plants, animals, and human beings. When oxalates become too concentrated in body fluids, they can crystallize and cause health problems. For this reason, individuals with already existing and untreated kidney or gallbladder problems may want to avoid eating beets.

Beets are popular in the home garden because they are relatively easy to grow and practically the whole plant can be eaten. Beets can be grown for their root qualities which include different shapes and sizes as well as red, yellow or white colors. The tops or greens, when young, are excellent in salads and when the plant is older, can be cooked. The greens are even more nutritious than the roots.

Beets prefer a cooler climate although they are tolerant of heat. Temperatures of 60 to 65 F and bright sunny days are ideal for beet plant growth and development. They can withstand cold weather short of severe freezing, making them a good long-season crop.

Beets prefer loose, well-drained soils but will tolerate a wide range. Remove stones and debris since this will hinder growth. In high clay soils, add organic matter to improve soil structure and to help avoid crusting after rainfall. Beets also make an excellent raised bed crop since soils are generally less compacted and there is less foot traffic. Beets are also sensitive to soil acidity. A low soil pH results in stunted growth. They prefer a pH of 6.2 to 6.8 and will tolerate 6.0 to 7.5. Fertilizers and lime are best applied using soil test results as a guide.

Arrangements for soil testing can be made through your local Extension office. A fertilizer with the analysis of 5-10-10 can be applied at the time of seeding and again when the plants are about three inches high.
Plant the seeds in a well-prepared seedbed as soon as the soil can be worked in the spring. Sow the seeds 1/2-inch deep and in rows 12 to 18 inches or more apart depending on the method of cultivation.

Space the seeds, which are actually fruits containing several seeds, one inch apart in the rows; when the seedlings are one to two inches tall, thin to about one plant per inch. As they grow, thin to about three to four inches between plants.

Succession planting can be done at three week intervals throughout the season. Avoid seeding during daytime temperatures of 80 degrees F, wait until it is cooler. Most varieties will mature within 55 to 70 days and can be planted until late summer.

After plants are well established, the application of mulch will conserve soil moisture, prevent soil compaction and help suppress weed growth. Any mechanical cultivation should be very shallow in order to avoid damage to the beet roots.

In order to obtain the highest quality, beets must make continuous growth. Soil moisture and plant nutrient element supply must be adequately maintained to prevent checking of the growth. Supplemental watering may be necessary during dry spells.

Weeds, insects and diseases must be controlled in the planting. Principal insect and disease problems of beets are flea beetles, leaf miners, aphids and Cercospora leaf spot. Regular inspection of the crop can help deter a major pest infestation. Check with your local Extension office for current control recommendations when you notice a problem.

Beets can be harvested at any time in their growth cycle. Greens are best when four to six inches tall. Beet roots are generally most tender after growing for 40 to 50 days. The best size is between 1-1/2 to 2 inches in diameter. As beets get larger, they tend to become more fibrous. When harvested, leave at least one inch of foliage on the root to avoid bleeding during cooking. I hope we all have a better understanding of the Beet now; I'm going to enjoy some tonight, how about you?

Enter your flowers and vegetables in the Elbert County Fair Open Class!

Prairie Canyon Ranch

Douglas County open space & natural Resources

by Aija Tobiss

Colorado Master Gardener

In order to serve our county better, the Elbert County Master Gardeners are continually learning about the plants, insects and plant diseases in this area.

On a recent Thursday morning the Master Gardeners gathered at the Prairie Canyon Ranch for a tour of the ranch to learn about the many native plants growing there. With Raylene, our fellow Master Gardener, and Jackie from Douglas County as our guides, we walked for three and a half hours the nearly thousand acre ranch of rolling grasslands, rocky canyons, Ponderosa Pines and beautiful wildflowers. With Raylene's and Jackie's expertise we were able to identify and study quite a few plants and grasses: penstemons, paintbrushes, cacti, poison ivy, wild raspberry bushes with beautiful large white blossoms, wild onions, milk vetch, penny cress, spiderwort, grasses, sedges, and many more.

Raylene's Rules of Thumb: "Sedges have edges, rushes are round, grasses have nodes from the top to the ground." Sweet Clover (yellow and white) "This is clover smells so sweet. Serrated edges do its leaves complete. Taste the Coumadin, Oh, so bitter…Just like kissing a tobacco spitter!"

Prairie Canyon Ranch is located on Highway 83, six and a half miles south of Franktown past the Castlewood Canyon State Park. It is a working ranch and was purchased in March 2000 with the help of Great Outdoors Colorado and the Colorado Cattlemen's Agricultural Land Trust. The ranch has a very interesting history.

37 million years ago a volcanic eruption deposited molten ash on the property from 200 miles away. Today we find scattered chunks of gray or pink rhyolite rock in the ranch quarry and imbedded in natural and manmade walls. Three million years later massive floods from the Old Rocky Mountains, deposited rocks and eroded granite, petrified wood and rhyolite**.**

The ranch was the winter camp for the Plains people for at least 10,000 years. These people were nomadic hunters and gatherers. In the warmer months they hunted various animals, and during harsh winters Prairie Canyon was a good place for them to winter camp with rock shelters, running water, plenty of firewood and small game.

To visit the Prairie Canyon Ranch, contact the Douglas County Division of Open Space and Natural Resources at 303-660-7495.

It's Miller Moth Time

by Raylene Owen
Colorado Master Gardener

Miller moths, Euxoa auxiliaries, are a common sight in the spring and early summer. While they may be a nuisance to humans, the birds and insect feeding mammals, such as rodents and bears, enjoy the bonanza and thrive on these nutrient filled morsels. These moths might be called "intersection moths" for their habit of hiding under cars, then flying out when the vehicle stops at an intersection. "Intersection birds", swallows, take advantage of this and dive bomb intersections to feast on these insects.

The Miller moth cycle begins on the plains. From late August to October each female miller moth lays about 1,000 eggs in the soil. Within a few days to two weeks, the eggs hatch into caterpillars. The caterpillars are called army cutworms. This name stems from the huge "armies" of caterpillars that band together in large groups. These caterpillars feed above the ground at night and remain under ground during the day. When the ground freezes during the winter, these half grown larvae remain inactive. These caterpillars begin to feed again in April and continue through early June when they pupate. In about two weeks they have metamorphosed and emerge as adult miller moths.

The adult moths begin to feed on the nectar of flowers. In years when the spring is mild and flower buds are not nipped by frost, the miller moths survive in great numbers, vexing people and exhausting cats in their constant quest to capture these furry snacks. Miller moths will gradually migrate to the mountains where they will continue to feed, hiding out in dense stands of evergreens and under rocks on talus slopes. They complete the cycle by migrating back to the plains in early fall to lay eggs for the next generation.

Whitney Cranshaw, Colorado State University entomologist, cites that in Colorado, 1991 was a bellwether year for the moths, which over wintered in tremendous numbers in wheat and alfalfa fields in eastern Colorado. It took seven weeks for them to migrate out of the metro area.

Miller moths don't want to be in houses or cars. They are just looking for places to hide, then get trapped and don't have the brain power to know how to get out. They are attracted to light trying to escape. Cranshaw recommends using a bowl of soapy water beneath a low wattage light bulb to attract the moths where they will touch the soapy water and drown. He says that reducing outdoor lighting and sealing doors and windows will help to keep the insects outside. Cranshaw assures us that, "Miller moths don't carry disease, ruin clothing, or imperil pets." They pollinate the flowers from which they feed and are an important part of the food chain for wildlife.

Thanks to the following people for help with the information in this article: Whitney Cranshaw, Colorado State University entomologist; Gary Gerhardt, Rocky Mountain News Staff Writer, Peterson Field Guides: Insects by Donald Borror and Richard White

A Kaleidoscope of Color!

by Debi Bredeson
Colorado Master Gardener

Elbert County residents are in for a treat with the addition of a larger demonstration garden at the County Fairgrounds. Work was recently completed, adding over three hundred square feet of planting beds which was filled with a generous donation of plants from the Plant Select organization. Planted in a "rainbow" fashion, this bed will give our county residents great insight as to which flowers, shrubs, and trees will do well in our area.

The Elbert County Master Gardeners have been planning this addition since the latter of 2009. They recently attended a full day of activities at the Denver Botanic Garden where they were given a tour of the gardens and listened to a number of talks on the Plant Select Program. Plant Select, which is a group made possible by Colorado State University, the Denver Botanic Garden, and many Nurseries and Landscape companies in the area, makes the chosen plants available to Master Gardener groups once yearly. Their expectations are that the receiving groups will then make this information available to the County residents.

The Elbert County Extension Office, located at the Fairgrounds in Kiowa, already had housed parts one and two of our Plant Select Demonstration Garden. First planted in 2005, residents have found the area around this building a wide array of color throughout the summer. With this new larger area, the view should be even more colorful!

We invite you to stop by the Extension Office and see this wonderful addition. We have brochures on the Plant Select Program, and also which plants we chose for our garden. Information is available as to where you may purchase these plants for your garden.

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Master Gardener Office Hours are Tuesday and Thursday afternoons, April through September from 1:00 to 4:30 p.m. Stop by the Extension Office at the Fairgrounds in Kiowa or give us a call at 303-621-3162 Kiowa or 719-541-2361 Simla. You may also email questions to elbertmg@ext.colostate.edu.

Do you have a friend or neighbor who might wish to receive this newsletter? Please call or email the Extension Office with their name and address. Also let us know if you wish to receive this newsletter electronically. Thank you!

Sincerely,

Sheila Kelley
Interim Elbert County Extension Director
Colorado State University

The Elbert County Fair

Open Class Exhibits

by Doris Smith
Colorado Master Gardener

A surefire way to see which flowers and vegetables grow well in Elbert County is to visit the Open Class Exhibits at the Fair. Many people are unaware of the exhibits because they are housed at the far south end of the fairgrounds in Fellowship Hall.

On Wednesday, August 4, from 8:00 to 11:30 am, anyone of any age can enter their goods for judging. The Elbert County Master Gardeners help participants check in their items. Judging is in the afternoon and the Master Gardeners help clerk for the judges. Everyone is welcome to watch and listen to the judging so long as they do not interfere. The exhibits are then displayed from Wednesday morning until the last day of the fair.

The Fair book rules and list of individual entries is available online at http://elbert.colostate.edu/4HECF.shtml or you can get a copy at the Elbert County Cooperative Extension office in Kiowa or Simla. Every flower, houseplant, vegetable, fruit and flowering shrub is eligible for judging in some category. In addition, the rules tell how to harvest and preserve flowers for maximum life.

A lot of effort goes into organizing the Open Class Exhibits. It's an opportunity to show your best cultivars and to see what others are growing successfully. We hope you will plan to stop by the Fellowship Hall during the County Fair.