



# From the Ground Up

A Gardening and Native Plants Quarterly

Colorado State University Extension-Pueblo County

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## FABULOUS FAMILIES

**FABACEAE** – by Judith Rice-Jones, Certified Native Plant Master, 2008

The Fabaceae, or pea, plant family contains both stellar specimens and a few black sheep—as with most families. The third largest family (after the Orchidaceae and the Asteraceae), its members are easily recognized by their trifoliate or pinnately compound leaves (with a couple of exceptions), swollen nodes, and legume fruit. Their flowers are generally zygomorphic, meaning that they can be divided into two equal parts in only one plane. Plants include both annual and perennial species. Plant forms may be herbs, shrubs, trees, and vines. In warmer climates, many beans are perennials, sometimes called, ‘come again beans’ which can be cut back and will grow new vines and produce additional crops.

The fruit is generally a bean-like pod. Leguminosae is an old name for the family and refers to the fruit of these plants which are often called legumes. The ovary develops into a dry fruit (legume) which opens along a seam on two sides. Common Colorado examples include the honey locust, alfalfa, and yellow sweet clover.

Flowering species include a Colorado favorite, lupines, as well as sweet peas, laburnum, acacia, mimosa, wisteria and other ornamental shrubs and trees. Several species are important cover crops and provide green manure for future edible crops. Among the best known of these are clover and vetch. Some less popular species which may become invasive or can be harmful to livestock are locoweed, *Astragalus*, (harmful to livestock), sweet clover, and Scot's broom (listed as a noxious weed in 13 states).

Family members which are important economically as edibles include soybeans (*Glycine max*), many kinds of beans (*Phaseolus* spp.), peas (*Pisum sativum*), garbanzos (*Cicer arietinum*), peanuts (*Arachis hypogaea*), carob (*Ceratonia siliqua*), licorice (*Glycyrrhiza glabra*), and lentils (*Lens* spp.). Some of the seeds are consumed directly, others as oils, and still others (mesquite) as flour made from the seeds.

In addition to their benefits as edibles, legumes have the ability to fix nitrogen in the soil. Many host bacteria in their roots within root nodules. These bacteria, *Rhizobia* spp., have

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*Astragalus racemosus*  
Photos by L. McMulkin,  
NPM Program  
Coordinator



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*Fabaceae continued*

the ability to take nitrogen gas out of the air and convert it to a form of nitrogen that is usable to the host plant. This symbiotic relationship between the legume and the bacteria provides usable nitrate to the legume and other plants in the same area. Nitrogen is an essential element in proteins; legumes produce seeds with high protein content, more than 50 percent in some species. Nitrogen-fixing legumes also have higher concentrations of nitrogen compounds in their vegetative tissues than non-fixing plants.

Some suggest that when doing fall cleanup, it is better to cut the legumes off at the soil and leave the roots, which will provide nourishment for beneficial soil organisms. Decomposing leaves release nitrogen and enrich the soil.

The edible varieties are generally easy to grow and prefer to be planted after the ground has warmed up. If you've never grown peas or beans in your garden, you may want to purchase some inoculant to get the seeds off to a good start. *Rhizobium leguminosarum* is the kind of nitrogen-fixing bacteria you want to use. The bacteria attach to the legumes growing in the soil and cause the plants to form the nitrogen-fixing nodules. Without the *R. leguminosarum*, the nodules do not form and the peas and beans will not be able to produce the nitrogen that helps them grow and which also replenishes the soil. Inoculant is available at many local nurseries and garden centers. 🌱



## INTERESTING INSECTS

### CENTIPEDES AS EXTERMINATORS by Elizabeth Catt, CSU Extension/ Pueblo County

One of the most startling creatures to be found, especially in your home, is a centipede. These are actually rather shy, solitary and nocturnal beings, probably as afraid of you as you are of them. The Common Desert Centipede, *Scolopendra polymorpha*, is in your home very likely by accident. It prefers to hang out under logs, debris and rocks, trying to stay out of the sun and dry heat of the day.

This centipede, also known as Tiger Centipede, has a distinct dark stripe on each body segment and they can become quite large, up to five inches. It is named *Scolopendra polymorpha* because it comes in so many variations in color. The Common Desert Centipede is more valuable in your garden than you might realize. They enjoy eating crickets, roaches, termites, scorpions, spiders, other arthropods as well as the occasional strawberry or fruit on the ground. Large specimens have been known to attack and eat small rodents and lizards. It is found from Oregon through Baja California and east through Oklahoma. It has many predators including owls, coyotes, badgers, raccoons, ringtails and bobcats.



Photo courtesy of W. Cranshaw, Entomologist, CSU

Although many centipedes can sometimes produce a painful "bite" described as more painful than a wasp sting, they are not toxic to humans. Just watch where you put your hands while lifting rocks, bricks or other objects in the garden, or perhaps wear gloves. If you find one in the house, take it outside; it's just lost its way and if you find there are too many for your taste in the garden, clean up a bit.



Another common centipede in southeastern Colorado is an immigrant now found throughout the world, the House Centipede, *Scutigera coleoptrata*, originally from the Mediterranean. This little fellow looks very different as it has a more rigid, pale beige body with fifteen pairs of legs when mature. Their legs are very long, delicate, and fan out around its body, making it look almost like a spider with too many legs. This centipede is about two inches at maturity. The House Centipede will run for darkness if it suddenly finds itself in bright light. They are often mistaken as being aggressive by running towards people who have just switched a light on; it is believed they are just heading for the shade made by a taller being.

Continued on Page 3



*Centipede continued*

There is good news about these little creatures, too. They eat bedbugs, silverfish, ants, termites, cockroaches, spiders and other arthropods. Rather good little exterminators! Outside, they live in cool, damp, dark places. In the house, they will most likely be found in those dark damp places like the basement, under a sink or perhaps the laundry room. Remember, as scary as they look, they are harmless and free exterminators of other creepier pests. For more information: [www.colostate.edu/Depts/Entomology](http://www.colostate.edu/Depts/Entomology) or [www.ext.colostate.edu/PUBS/insects/pubins.html](http://www.ext.colostate.edu/PUBS/insects/pubins.html). 📄

## **Irrigation is Critical During Winter Drought** by Linda McMulkin, CSU Extension-Pueblo County

Winter on the Colorado plains can dehydrate even the toughest plant. Since many common garden plants evolved in northern Europe, the Pacific Northwest or New England, our landscapes often find winter in Colorado difficult to endure. CSU Extension recommends that perennial plants (trees, shrubs, herbaceous ornamentals, turfgrass) in the landscape be watered at least once per month through the winter, even those that are fully dormant.

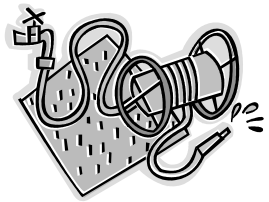
The US Drought Monitor ([http://drought.unl.edu/dm/DM\\_west.htm](http://drought.unl.edu/dm/DM_west.htm)) indicates that eastern Colorado is in a severe drought, with little relief in sight for the next few months. Pueblo County has not received significant precipitation since early August, putting our landscapes at risk.

Last winter was also dry, and trees, shrubs and lawns came out of the dormant season under severe stress. I observed an increase in iron chlorosis, reduced size and number of leaves, and an increase in insect problems on many woody species. Of course, many factors contributed to the problems I saw in 2010, but I believe that winter drought played a role.

Broadleaf and needled evergreens and cool season turf grasses remain active long after the leaves of deciduous trees have dropped, so they need moisture throughout the winter. And new plants in your landscape need special attention. Woody plants that have been in your landscape less than 2 years and herbaceous perennials (including turf grasses) that were planted in 2010 have not developed full root systems and will need water more often.

“Your trees are a valuable environmental and aesthetic asset to your home,” said Eric Moroski, GreenCO president. “Thirsty trees are more likely to have limb breakage as a result of heavy snows or strong winds. Watering them during winter dry spells helps them stay healthy and strong.”

The rule of thumb is that you need to irrigate the plants in your landscape if we have received less than one inch of moisture in the previous 30 days. Keep in mind that it takes approximately 10 inches of snow to equal 1 inch of moisture. You can find precipitation data on the National Weather Service website at or on the Pueblo Chieftain weather page. It is often easiest to find “month-to-date” values, so check your source near the last day of the month. 📄



### ***Dining with Diabetes***

*January 24, 31, February 7, 14 2:00-4:00 pm*

*The Dining with Diabetes series will help you learn simple changes you can make to improve your diet.*

*\$20 per person/\$30 per couple (sharing materials)*

To register for classes, mail or bring payment to:  
CSU Extension, 701 Court Street, Suite C,  
Pueblo, CO 81003 583-6566



### *Garden Tip: Stay connected to your garden*

Just because the growing season is over, don't ignore your garden. Take a few minutes to stay connected to your landscape by checking for potential problems and hints of new growth. Pick up tumbleweeds and other debris, check soil moisture, watch for wildlife damage, renew mulch, add organic matter to your soil, and plan for next spring. It will be here before you know it.



## **Treat Iron Deficiency This Winter For Healthier Trees and Shrubs Next Spring**

by Linda McMulkin, CSU Extension-Pueblo County


Iron deficiency is a common plant problem in southeastern Colorado. The lack of iron results in chlorosis, or yellowing, of leaves, characterized by yellow blades with green veins. In extreme cases, the margins (edge) of the leaves turn brown or leaves may drop off the plant. New leaves are most effected, as iron is not mobile within the plant and can't be "stolen" from old leaves for use in newly developing leaves.

Iron, which is used in the formation of chlorophyll, is a mineral which is plentiful in most Colorado soils. Unfortunately that iron is often unavailable due to number of soil related factors, including high soil pH, compaction, overly wet/dry soil, competition, excessive organic matter or soil salts, and soil temperature. Winter drought, coupled with a slow spring warm up in 2010, resulted in high levels of iron chlorosis on globe willows, aspen, roses, and other landscape plants this past growing season.

Iron deficiency is fairly easy to diagnose but it can be difficult to suggest a treatment, since there can be several variables contributing to the problem. Plant selection is critical; avoid planting species that have a history of iron deficiency problems. Adjusting an environmental condition such as irrigation, aeration or soil temperature can often be the most effective methods of relieving iron deficiencies. Supplemental iron is an option, but it is important to choose the right product and apply it at the appropriate time (soil applications late February to mid-April).

A soil test will provide information on soil pH and free-lime (calcium carbonate) level. The higher the pH and free-lime, the harder it is to find effective iron supplements. There is a quick and easy test for free-lime that you can do at home.


- Place 1-2 tablespoons of dry, crumbled soil in a paper cup.
- Moisten the soil thoroughly with regular household vinegar.
- If the soil/vinegar mix bubbles or fizzes, free-lime is present.
- Accept the fact that changing the pH of the soil is impractical.

Products containing iron chelates are recommended for high pH soils, but which product depends on the specific pH level. For recommended products and additional information, see CMG GardenNotes 233: Iron Chlorosis, at [www.cmg.colostate.edu](http://www.cmg.colostate.edu). 

## **THANKS A BUSHEL AND A PECK!** By Georgianna Lipich, Farmers' Market Board Member

Our appreciation goes out to all who supported the 2010 Farmers' Market! We could not survive without the support of our loyal vendors, customers and volunteers. This year's Market was a great success with even more college scholarships being made available to Pueblo County students.

Brainstorming on our plans for the 2011 Farmers' Market, we observed that most FM customers were older adults. As we all know, efforts are being made on a nationwide basis to increase the public's interest and active participation in improving health and eradicating obesity. In order to accomplish these goals, children and young families across the country need to be educated about the healthful benefits of consuming fresh produce. Our Farmers' Market gives us the ideal venue for doing just that. The focus for 2011 will be to provide more on-site educational and hands-on activities for children and youth, and encourage families to attend the market. We are exploring several great ideas but would more than welcome your input and participation.

Again, THANKS A BUSHEL AND A PECK to all of you for helping to make this year's Farmers' Market a huge success! 



## **MAKE A GROW BAG BUCKET** by Greg Nolan, Colorado Master Gardener, 2009


I thought I would go against nature and start some winter tomatoes and see what I could produce in a south window with some supplemental light. I decided I would use grow bags for my tomatoes. That is, until I saw the cost; ouch.

Time to put my oblique thinking skills to work. I decided I would take an old drywall bucket (or any other five-gallon bucket) and line it with some type of permeable material so it would breathe; hmmm. I considered landscape fabric but I did not want to buy a whole roll. I figured reusable grocery bags might work, as many are made out of recycled plastics such as pop bottles, and they are light weight, sturdy and breathe. I thought these would hold up well for a season. So, I went to my nearby super center and scored a bag. It set me back a buck but, compared to the grow bags, they were a bargain.

I wanted to work my bucket over so it would drain and breathe as well as the grocery bag but provide a semi-rigid frame for the bag. So, I got out my one inch hole saw and a drill and went to work on the drywall bucket, drilling several one inch holes at the bottom and around the sides until it looked like Swiss cheese. Yummm; I like cheese.

I took my new super store sack and lined my bucket with it. It worked beautifully and folded over the top of the bucket as if it were made to do so. I added soil and topped it off with a thin layer of sand. I put the bucket on the lid to catch excess water. I planted my seeds directly in the bucket and hope to have some home-grown tomatoes in February and March.

I realized the bucket and bag combo were a very good combination that would work well for container gardens, patio gardens, or raised gardens. The buckets could easily be elevated for physically compromised gardeners. 🍷



### **Money Talk for Women (and their partners)**

**Jan 13, 20, 27, Feb. 3, 10 6:00-8:00 pm**

Do you know... What FICO means? How to get a free credit report? What your net worth is? How to choose a financial professional? Developed because women have unique financial needs, this class series discusses financial basics, insurance, investing, and retirement.

5-Week course- \$40 per person/  
\$50 per couple (sharing materials)

To register for classes, mail or bring payment to:  
CSU Extension, 701 Court Street, Suite C,  
Pueblo, CO 81003 583-6566





Late fall and early winter find local birds busily eating the remnants of rose family fruits. There are cultivated and escaped apples (*Malus domestica*), crab apple species, withered chokecherries (*Padus virginiana*), hips of the lovely wild rose (*Rosa woodsii*), any wild plums (*Prunus americana*) that the bears didn't find, and there are purple-black hawthorn fruits.

Hawthorn (*Crataegus macracantha* in the foothills of the Wet Mountains) provides fine habitat for birds, but is one native that sometimes is taken for granted by humans — or avoided because of its wicked thorns. The small white flowers aren't particularly fragrant or showy; the shrubby plants mass together along streams or irrigation ditches, creating impenetrable "hedges" that don't invite curious plant lovers. The shiny leaves turn a nice bronze color in fall but can't compete with nearby currant, grape, chokecherry, willow, cottonwood, rose — even poison ivy — leaves, which change to many shades of gold and red.

But when all the leaves have dropped, the hawthorn shines. Its red-purple twigs and orange-red branches provide fine color against an otherwise somber backdrop of gray and brown trees and mostly brown grasses. And, its remaining fruits attract birds, both colorful and not. A cloudy December day, a hawthorn shrub and a foraging Steller's jay are good reminders that cold weather has its bonuses.



© Jennifer Ackerfield  
Photo courtesy of Jennifer Ackerfield,  
Collections Manager, CSU Herbarium

The genus *Crataegus* is easy enough to identify — the long thorns and the plant's resemblance to other members of the family Rosaceae are good clues — but hawthorn species are difficult to distinguish from one another. David Sibley, in "The Sibley Guide to Trees," states: "Overzealous botanists in the early 1900s named over 1,100 species of hawthorns in North America alone. This was certainly too many, especially given that the differences between most are minute and variable." He suggests that 100 or fewer species probably is a more practical number.

Sibley adds, however, that hawthorns as a genus display a "very diverse mosaic of variation," especially across the eastern United States. He writes that this has occurred because they grow at the edges of forests and in clearings, and probably spread quickly when eastern U.S. forests were cleared by European immigrants. This spread led to rapid adaptation and hybridization, and because hawthorns can reproduce asexually, local hybrids or mutations could be perpetuated unchanged.

Closer to home, William Weber and Ronald Wittmann cite four hawthorn species in "Colorado Flora: Eastern Slope." They are *C. rivularis* which grows in the San Luis Valley and North Park and essentially is a Western Slope species; *C. erythropoda* which usually grows on dry hillsides rather than near streams; *C. macracantha* which is common in the outer foothills of the Front Range and usually grows close to streams; and *C. chrysocarpa* which is similar in distribution to *C. macracantha* but occurs rarely or infrequently.

Weber and Wittmann write that the leaves of *C. macracantha* are bronze-colored in fall and the first-year twigs are usually purple-brown. Like all members of the Rosaceae family, the local hawthorn species and the other Colorado species have five-petaled, radially symmetrical flowers and a hypanthium, a fused cup or tube that's formed by the bases of the calyx, corolla and stamens. They have alternate leaves.

Hawthorns grow in the West from Alaska and British Columbia south into California and throughout the Rocky Mountains. They have a variety of common names such as mayhaw, thorn-apple and hog-apple.


"Western Trees," a Peterson Field Guide written by George and Olivia Petrides, notes that the small hawthorn fruits are apple-like and provide food for mammals such as gray fox, cottontail rabbit and whitetail deer in addition to many birds. The dense shrubs provide

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### *Hawthorn continued*

protective cover for nesting songbirds and they are important honey plants. They formerly were planted as fences in England. The “haw” in the name hawthorn comes from the same root as “hedge.”

Many species of hawthorn are used in landscaping and there are many hawthorn cultivars. Herbalist Gregory Tilford writes in “Edible and Medicinal Plants of the West” that the flowering branches and berries of hawthorn have been used in Chinese medicine for millennia, and the plant is regarded as “one of the premier heart tonics of herbal medicine.” 



## DIGGING DEEPER

### USE WINTER TO DREAM AND PLAN FOR SPRING

by Edith Brideau, Colorado Master Gardener, 2007

If you’re suffering from gardening withdrawal, shake it off – do a little dreaming about spring gardening and start planning for the return of gardening weather. It’s all at the tip of your finger, just one website away. My original plan for this article was to review several helpful sites, but I was so impressed by one site that I’m focusing on it entirely: **[www.backyardgardener.com](http://www.backyardgardener.com)**


After exploring the site for more than two hours, I’ve barely made a dent in the vast, varied, detailed and professionally written articles and links to other sites. As with most “free” sites, there are paid advertisements on all pages, but site visitors can ignore those and focus on the content.

The site is easy to navigate. All main topics are listed alphabetically in the menu on the left-hand side of the home page. Just ignore the first two items, “Shop our Store” and “add URL” unless you want to look at products or place your own ad on this site. Then, you can explore the nearly 40 main topics, such as Alpine Gardens, Common Names, Fence Design, Herb Garden, Propagation, Trees, and Vegetable Gardens.

The Encyclopedia contains an extensive plant list that can be viewed alphabetically by botanical or common name. Each entry contains the plant’s characteristics and its requirements (hardiness zone, heat zone, soil and pH preference, etc.) If you don’t know your hardiness zone, just click on the Hardiness Zone menu item and enter your ZIP code. There are even helpful videos linked to some Encyclopedia entries. If you don’t understand the terms used, you can look them up in the main menu item, Garden Words. The definition may contain other unfamiliar terms; just click on them to see their definitions.

As an example of how detailed the articles are, the main menu item “Greenhouse” contains 15 subtopics, such as Air Circulation, Calculating Heating Requirements, Construction, Good Bugs to the Rescue, Hotbed Design, and Shading Tips.

The main menu topic “How to Garden” contains a wealth of information on several topics such as Bulbs (8 articles), Container Gardening (14), Outdoor Propagation Techniques (6), Perennials (15), Roses (11), Soil, Composting and Fertilizing (20), The Vegetable Garden (18), Tools and Equipment (12), Trees (21), Vines and Climbers (6), Water Gardening (12), and Watering Techniques. And those are just in the Outdoor Gardening section! There is also an Indoor Gardening section that is just as extensive. The Construction section offers dozens of articles on building bat houses, bird houses, fountains, trellises, walls, and walkways.

This site isn’t perfect. One article on soil amendment recommends adding three inches of sand to clay soil, which is simply a recipe for concrete. If you are looking for research-based information specific to Colorado, you are better off exploring the Colorado State University – Extension website **[www.ext.colostate.edu](http://www.ext.colostate.edu)**. But I recommend **[www.backyardgardener.com](http://www.backyardgardener.com)** for general information on a variety of gardening topics. 

Note: When trade names are used, no discrimination is intended and no endorsement by CSU Extension is implied.



## **RETIRED BUT STILL WORKING HARD** by Phyllis Adkins, Colorado Master Gardener, 2010

We thought we were downsizing. My husband and I recently retired and bought some land in Rocky Ford, Colorado. It is beautiful land with some very mature deciduous trees, pasture land, a pond and field of alfalfa. We would be away from everything except for Mother Nature. It hasn't proved to be as tranquil and relaxing as I dreamed. Please don't misunderstand me, we love it here. Our new house is smaller by half, but 80 acres of land, a farm and, of course, a few animals (who could resist) make it less than leisurely.

First of all, it is a little windier in rural Colorado than in our postage stamp yard in suburban Denver. So began my relationship with the Colorado State University Extension office. I went to the office in Rocky Ford and Vikki was at the desk. She has become my best friend forever!

I went in looking for a way to plant a wind break. I left an hour later with numerous tree catalogs and information sheets on conservation, trees that are native to the Rocky Mountains, trees suited to the Eastern Plains and more. I also had an order form for seedling trees. Oh, and an application for the Colorado Master Gardener program! If I ever thought I would be bored in rural Colorado, away from everything, I was bored no more! I read everything she gave me, went back with questions, and ordered 500 seedlings.

The seedling program is fantastic! You order trees or shrubs in packs of 30 or 50 each. They come complete with planting instructions. The trees are less than a dollar a piece-what a deal. They come healthy and ready to plant.

There is some preparation work, and unless you have farm hands and equipment, I would recommend ordering a more reasonable number to start with. In retrospect maybe 150 would have been easier my first year. Digging even a small hole for 500 trees can be exhausting. You also need to plant them as soon as possible to ensure they survive.

Oh, another minor detail, even if they are drought tolerant, it takes at least a year of regular irrigation to establish the trees or shrubs. Do you have any idea how long it takes to water 500 trees by hand? I would guess I spent 6-7 hours at least twice per week when weather was mild; of course, when it is over 100 degrees, daily watering is advised, especially in sandy soil. My first summer in Rocky Ford I did little else but water. .... Maybe next year I can become more acquainted with my neighbors. 🍷



Editors note: For seedling tree application/information visit:

<http://www.coopext.colostate.edu/Pueblo/nat/natu.shtml> or call Christine at 583-6566 to have an application sent to you. For more information, visit the CO State Forest Service website at: <http://csfs.colostate.edu/pages/seedling-tree-nursery.html>

*Garden Tip: Can you have too much organic matter in your garden soil?*

Gardening publications recommend that adding organic matter is the best thing we can do for our soil. But too much of a good thing can cause problems too. Over-amending can result in high salts, excess water holding capacity, ammonia levels that burn roots and leaves, too much nitrogen, or low nitrogen levels caused by the decomposition process. It is best to add organic matter over several years until the recommended 5% is reached. For amendment options and application rates, see the following publications on the CSU Extension website at [www.colostate.edu](http://www.colostate.edu).

- CSU Extension fact sheet 7.235: Choosing a Soil Amendment
- CMG GardenNotes 243: Using Compost in the Home Garden
- CMG GardenNotes 242: Using Manure in the Home Garden.





PERENNIAL PEOPLE

## **COUNTRY ROOTS FARM, Owners—Ryan and Betsy Morris**

by Greg Nolan, Colorado Master Gardener, 2009

Ryan and Betsy Morris are the owners of Country Roots Farm at 29342 Everett Rd., Pueblo, CO. They operate one of the oldest operating CSA Programs (Community Supported Agriculture) in the state of Colorado. The farm produces heirloom vegetables, fruits and herbs, along with free-range eggs, free-range turkeys, milk goats, and naturally-grown pork. All produce grown is “Certified Naturally Grown” (see [www.naturallygrown.org](http://www.naturallygrown.org)). They are proud to offer an “Apprenticeship Program”, as they believe it is important to help people who are looking at becoming future farmers and carrying on a great tradition and lifestyle. The farm offers tours by appointment.

*Country Roots Farm*  
"Established 1993"

### **1. *What does CSA mean and what are Shares?***

Community Supported Agriculture; folks pay ahead (typically in January) to provide the farmer with income to purchase seeds, supplies, water, etc. The “share member” then receives a weekly allotment of what the farm produces. Please see [www.countryrootsfarm.org](http://www.countryrootsfarm.org). Summer Shares typically go from mid-June to early October; Fall Shares typically go from mid-October to late November. The Fall Share produce comes from unheated tunnels, storage crops, and fresh produce from the fields. For those folks who decide not to be a “CSA Member”, the farm sells their wares from their Farm Stand and a few Farmer Markets.

### **2. *What can the Pueblo community do to better support local farmers?***

There is a huge “Local Food” movement going on nationally and internationally. So far, it’s not so huge in the Pueblo area. Through word of mouth, other producers, restaurants, etc...we hope to help change that.

Air, water, food are all things as humans we need every day to keep us healthy. Unfortunately, a lot of people pay more attention to what is going to be on TV that night than what they are going to have for dinner and where that food actually came from. Folks in Pueblo should visit their local farms; they are a diverse group and can typically provide for families year-round. The idea of “convenience” will hopefully decrease in importance and “local food” will increase in importance. Supporting local farmers in one way would be for people to learn how to store food over the winter - either by freezing, canning, dehydrating, or fermenting.

### **3. *As you see it, what are the benefits of organic farming to the soil, our health, and the environment?***

One big example is that smaller (1-15 acres) farms are not so dependent on petroleum products (fuel, oil, pesticides, herbicides, etc.). Organic Farmers believe in “feeding the soil” not just the crops. When you look at the food that is offered now, it is processed beyond belief. Adults and kids alike are becoming further removed from “real food”. If people are interested, they can follow our biggest health problems and fast growing health problems, which are directly linked to the food we consume and the environment in which we live. One of the scariest eye-opening facts that Barbara Kingsolver (author of “Animal, Vegetable, Miracle”, which I believe should be required reading for all families) is that we will be the first generation to see our kids die before us because of diabetes and other health concerns. That really makes me sad and angry at our current food system. Who gets the cheapest food in the U.S.? The school lunch programs...very sad, and if people get involved and care about kids in general, it can be changed. *Continued on Page 10*



4. **What are common organic farming methods to control pests?**

Three of the most common methods are: crop rotation, feeding the soil properly to keep the plants healthy, providing and growing of habitats and cover crops for beneficial insects.

5. **How do you control weeds?**

We have weeds like every other farmer but we control them through mowing, tractor cultivation, cover crops, animal rotation, hoeing, and hand weeding.


6. **What types of irrigation do you use?**

We use both furrow/flood irrigation and drip irrigation. They both have their positive and negative points. There are definitely fewer weeds with drip irrigation.

7. **What do you do to build soil?**

We grow specific cover crops prior to vegetable/fruit crops to turn into the soil, or pasture animals on it for short periods of time. We also compost, compost, compost.

8. **What methods might you suggest for a family garden that pays big dividends for the cost and effort?**

Have two garden areas and rotate between a vegetable/fruit crop and a cover crop/s. Raise a small amount of chickens you can keep on the cover crop area; they'll help prepare your garden spot for the following year and supply you with eggs. When your garden is done for the season, move the chickens over to the garden spot; they'll help with any insects, weed seeds, and tilling the soil for you. Plant only what you really like to eat, and buy the rest from your local farmers. 




WICKED WEEDS

**THOSE TUMBLIN' TUMBLEWEEDS** by Marcia Weaber, Certified Native Plant Master, 2009

They pile up in the fence corners, catch in evergreens, clog wind breaks and sometimes build up against buildings to the eaves. If you live in southeastern Colorado, it can be a constant battle to manage the mature wind blown weeds known as tumbleweeds.

Kochia (*Bassia sieversiana*) and Russian thistle (*Salsola collina* and *S. australis*) are two alien species weeds that become the "tumbleweeds". Both are annual, broadleaf weeds, with tiny flowers. These plants are opportunistic. They can grow in areas in the yard with little or no vegetation, or in areas where vegetation is stressed as with drought, or after soil disturbance from construction, or cultivation of the ground in preparation for a lawn.

The characteristics that make Kochia and Russian thistle so problematic are their ability to germinate in many different environments, continuous seed production for as long as the growing season permits, high seed output in a variety of environments, and their ability to compete aggressively with other plants. Growth is rapid from germination to flowering and continuous seed production results in over 1,000,000 seeds per plant.

What can the home gardener do to control Kochia and Russian thistle? *Planttalk Colorado*<sup>TM</sup> fact sheet 2116 (<http://www.ext.colostate.edu/ptlk/2124.html>) recommends a three-pronged approach: prevention, cultural and chemical control. Prevent weeds by encouraging the rapid establishment of ornamental plants or a dense, healthy lawn. The use of weed barriers and mulch may help to keep large areas of your yard weed free. However, blowing dirt will soon limit the effectiveness of the weed barrier and mulch. Cultural control of the weeds includes mulching, mowing, hand-weeding and cultivation. Mulching limits light required for weed establishment. For mowing to be effective, it must be done when flower heads are produced. Frequent hand removal on annual weeds is a time consuming but effective tool if done before flowering. Post emergence herbicides kill weeds present at the time of application. The weeds must be actively growing when the chemicals are applied. Before using any chemical product, correctly identify the weed and **read the product label**. If populations are intensively managed for two to three years to prevent seed production and no new weeds blow in, the weeds can be eradicated because seeds are short-lived. 



## 2011 Regional Gardening Events

Peak to Prairie Symposium, Colorado Springs, February 4-5,  
<http://www.peaktoprairielandscapesymposium.org/>  
ProGreen Expo, Denver, February 8-11, <http://www.progreenexpo.com/>  
Pueblo Home and Garden Show, Pueblo, March 12-13  
Colorado Garden and Home Show, Denver, February 12-20, <http://www.gardeningcolorado.com/>  
Water Conservation and Xeriscape Conference, Albuquerque, February 23-26,  
<http://www.xeriscapenm.com>  
Western Landscape Symposium, Pueblo, March 5 (tickets on sale January 3 at CSUE office)  
Plant Sale at the Pueblo Zoo, Pueblo, May 7  
Xeriscape Tours of Pueblo & Pueblo West, June 4 and 5



### 2011 Yard and Garden Class Schedule

**Class cost for the public ranges from \$15 to \$25.**

**Cost for active Colorado Master Gardeners is \$5 per class (\$15 for Trough)**

DAY	DATE	TIME	CLASS TOPIC	LOCATION
Tuesday	January 25	6-9 p.m.	Fertilizer Fundamentals	CSU Extension office
Tuesday	February 22	6-9 p.m.	Growing Tree Fruit	CSU Extension Office
Tuesday	March 29	6-9 p.m.	Vegetable Gardening	Pueblo County Conference Room
Saturday	April 2	9 a.m. - 3 p.m.	Irrigation	Fine Arts Bldg, Fairgrounds
Tuesday	April 12	6-9 p.m.	Tree Care	CSU Extension Office
Saturday	April 30	9 a.m. - Noon	Trough Making Part 1 of 2	Fine Arts Bldg, Fairgrounds
Saturday	May 14	9 a.m. - Noon	Trough Making Part 2 of 2	Fine Arts Bldg, Fairgrounds

**Registration forms are available through the CSU Extension/Pueblo County office. Registration is due with payment at least one week prior to the class date.**

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*Garden Tip: Houseplants*

Powdery mildew, fungus gnats, and spider mites are common winter problems on houseplants. PlantTalk Colorado has short scripts on houseplant care and common disease and insect problems at <http://www.ext.colostate.edu/ptlk/index.html>. Many of the scripts are also available as audio files.

If you need any special accommodation(s) to participate in any Colorado State University Extension event, please contact CSU Extension-Pueblo County at 719-583-6566. Your request must be submitted at least five (5) business days in advance of the event. Colorado State University, U.S. Department of Agriculture and Pueblo County cooperating. Extension programs are available to all without discrimination.





# WESTERN LANDSCAPE SYMPOSIUM

## Fifth Annual Western Landscape Symposium March 19, 2011

Pueblo Community College  
Fortino Ballroom  
900 W. Orman Ave  
Pueblo · CO · 81004

9:00 a.m. - 4:00 p.m.

Tickets \$18.00 each/  
2 for \$30 in advance  
(\$20.00 at the door)

Cash or check only - no credit cards

**Keynote Speaker:**  
**Lauren Springer Ogden**  
Landscape Designer and Noted Author  
**Design Inspirations for Water Wise Gardeners**

**Other Sessions:**

- Ornamental and Native Grasses for Every Garden
- Successful Strategies for Gardening on the Cheap
- Small Fruits for Colorado's Eastern Slope
- Creating Curbside Charm
- Art in the Garden
- How to Grow Herbs in Dryland Gardens



**Tickets on Sale Jan 3!  
Hurry! Seating is Limited.**

**2011 Peak to Prairie  
Landscape Symposium**  
For Homeowners and Professionals

Friday, Feb. 4  
and  
Saturday, Feb. 5

*New Website* [www.peaktoprairielandscapesymposium.org](http://www.peaktoprairielandscapesymposium.org)

**Peak to Prairie Landscape Symposium**  
Save the dates: Feb. 4 and 5, 2011

Regional experts will inform homeowners and professionals about the latest tips and trends in water-efficient landscape design, plant selection, installation and maintenance for our semi-arid climate.

**Register Now!**

For program information and online registration:  
[www.peaktoprairielandscapesymposium.org](http://www.peaktoprairielandscapesymposium.org)

For all the reasons you already know...  
to receive symposium information by email only,  
please contact us.

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719.668.3333.

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