GEO Offers Rebates for Energy Efficiency Upgrades

Source: www.colorado.gov/energy

Beginning in March, 2010, the Governor’s Energy Office (GEO) will offer rebates to Colorado residents who install energy efficiency and renewable energy measures. 

Please note that the GEO rebates will not be retroactive. This means that measures purchased or installed before the GEO launches the program will be ineligible for rebates.

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GEO Offers Rebates for Energy Efficiency Upgrades

Voles, also called meadow mice, are widespread and can cause significant economic damage. There are 23 vole species in the United States, each occupying various habitats, from prairie to marshland to forests. Voles also use habitats created by humans, such as orchards, windbreaks, and cultivated fields. Control of voles is often necessary to reduce damage to plants and trees. This article will discuss the various methods of controlling voles on your property.

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Do an online calculation of your energy use and carbon footprint at Home Energy Saver. It’s easy to use.
http://hes.lbl.gov/hes/db/zip.shtml

Forest Condition Self-Assessment Guide

If you own forested land and are wondering about the health of your forest, the Forest Condition Assessment will help you get started. You will identify specific management issues by answering the questions in the basic self-assessment, which will guide you through a forest stand inventory and evaluation. Helpful resources and hints are also listed.

The Forest Condition Assessment can be downloaded from the CSU Extension Small Acreage Management website at http://www.ext.colostate.edu/sam/trees.html

GEO Offers Rebates for Energy Efficiency Upgrades Continued from page 1

The rebates will be offered statewide on a first-come, first-serve basis through 2012 or until funds are exhausted, whichever occurs first. All energy efficiency and renewable energy rebates are designed to complement existing local incentives and create partnership opportunities when possible. The GEO has developed this program based on stringent criteria from the U.S. Department of Energy and the needs of Coloradans. For general appliance and technology categories offered in March of 2010, please follow the link to “Colorado consumer residents” above. Funding for these rebates is provided by American Recovery and Reinvestment Act (ARRA) of 2009.

To learn more, go to CO Governor’s Energy website at http://www.colorado.gov/energy/index.php/?/resources/category/rebates/
Got Voles? Continued from page 1

Usually in the fall and winter, voles "girdle" or eat the bark of seedlings and mature trees. This girdling can easily kill young plants and is not healthy for trees or other shrubs. Voles also love to eat succulent root systems and will burrow under plants, crops, or ground cover, building extensive tunnel systems. They can ruin lawns and eat bulbs without clear or early warning. A vole problem is often only identifiable after they have destroyed a number of plants.

The most identifiable sign of voles in Colorado is their surface runway system with numerous burrows. Runways are 1-2 inches in width and vegetation near the runway will be clipped close to the ground. Fences and small pieces of vegetation may also be found in the runways. Voles are classified as nongame mammals and can be controlled when they are causing damage. They are capable of carrying disease organism such as plague (Yersinia pestis) and tularemia (Francisella tularensis) so use protective clothing when handling voles.

Hardware cloth cylinders can exclude voles from seedlings. Bury wire 6 inches to keep voles from burrowing under the cylinder. Large scale fencing is not effective. Eliminate weeds, groundcover, and litter in and around crops, lawns, and cultivated areas to reduce the capacity of these areas to support voles. Mow or graze lawns and pastures regularly, and clear mulch 3 feet away from bases of trees.

The following methods of control are from, Voles, the Handbook: Prevention and Control of Wildlife Damage by University of Nebraska-Lincoln.

Repellants
Repellants may afford short-term protection from meadow voles. Look for repellants utilizing thiram (also a fungicide) or capsaicin (the “hot” in chilies) as the active ingredient.

Toxicants
Zinc phosphide is the most commonly used toxicant for vole control. It is available in pelleted and grain bait forms which are generally broadcast or placed by hand in runways and burrow opening. Keep in mind that zinc phosphide baits are potentially hazardous to ground feeding birds, especially waterfowl. Placing bait into burrows may reduce this hazard.

Anticoagulant baits are slow acting toxicants which take 5-15 days to work. Anticoagulant baits can be broadcast, placed by hand, or can be placed in various types of bait containers, such as water repellant paper tubes. Bait tubes protect bait from moisture, and reduce risk of other animals or small children consuming bait.

Fumigants
Fumigants usually are not effective because of the shallowness of the burrows.

Trapping
Although trapping is not a cost or labor efficient method of controlling large populations of voles, mouse traps can be used. Trap in Fall or late Winter using peanut butter-oatmeal or apple slices as bait. Place trap perpendicular to runways with the trigger end in the runway.

Predators
A wide variety of predators feed on voles, however this may not be effective in controlling large vole populations, as voles have a high reproduction potential. Females breed as early as 2 weeks of age and they breed throughout the year having 1 to 5 litters per year.

For more information on voles:
Internet Center for Wildlife Damage Management
http://icwdm.org/handbook/rodents/Voles.asp

University of California IPM program
http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7439.html
The Basics of Dryland Grass Establishment
By Adams County Extension

One of the most valuable assets you can have on your acreage is a well-established stand of grass. Grasses serve several important functions for property owners:

- A good, vigorous stand of grass helps reduce the need for one of the most resource-consuming tasks most landowners face: weed control. A nice thick crop of grass suppresses weeds, not giving them a place to invade. Will grasses totally eliminate the need to “patrol and control” unwanted plants on your place? No, but your weed infestations will be smaller and more infrequent.
- Preventing both wind and water erosion, grasses hold your soil in place when heavy rains or high winds try to take it somewhere else. Grass buffer strips are particularly important bordering any water features like rivers, streams, ponds or lakes, to filter soil particles and debris from runoff and help prevent excessive sediment in the water.
- Providing habitat for a variety of wildlife species.
- Offering the opportunity to harvest grass hay is an option, particularly if you are able to irrigate your grass.
- Increasing the aesthetics and eye appeal of your property with grass cover will enhance the “finished” appearance of your property and will add to its value should you decide to sell.

Some of you are thinking, “He missed the most important reason for growing grass, grazing my animals.” I didn’t forget this popular use of your grass, but grazing needs some special consideration. Grazing is certainly an appropriate use of your grasses, but you must keep the following saying in mind: “Love your grass as much as you love your animals.” If you leave your horses or other livestock on your pastures too long, allowing them to overgraze and trample the ground, you essentially are throwing away all the resources you’ve invested to establish the grasses.

To help you decide what types of seed to select, let’s talk a little bit about a couple of general characteristics of grass plants.

Native grasses are those native to Colorado and/or the United States. These grasses have adapted to climate and soils of the area so they can survive better. The natives are usually slow to establish, taking from two to four years before they become fully established and developed. Once established, they persist a long time on the land and require little maintenance. One of the considerations with natives is the price of seed. You will generally have to spend more money for native seed.

Introduced grass species are those developed outside of North America and were typically introduced for their forage qualities. They usually establish quickly, given adequate soil moisture, and can be grazed in one to two years. Introduced grasses will respond better to fertilizer and irrigation than many of the natives, but they don’t live as long as the natives.

Grasses can also be classified as sod-formers or bunch grasses as well as cool season or warm season species. Sod-forming grasses reproduce from their root systems as well as from seeds. Bunch grasses grow in clumps and reproduce primarily from seeds. Cool season grasses actively grow during the cool months of the year (spring and fall); warm season grasses actively grow during the summer months.

Continued on page 5
For grass species suggestions specific to your situation, call your County Extension office or your local NRCS (Natural Resources Conservation Service) office.

Here are some things to think about as you start planning to plant grass on your acreage:

1. **Do you have weed infestations under control?** Once grasses have been growing for a year or two, they can out-compete most weeds. BUT, when they’re just getting started, grass stands will be destroyed by weeds, particularly noxious weeds like Canada thistle, field bindweed and others that will suck up available soil moisture and shade out or crowd out grass seedlings. CONTROL YOUR WEEDS BEFORE PLANTING GRASSES.

2. **Prepare a good seedbed**, free of debris like old weed matter, rocks and clods. A good seedbed should:

   - Be firm but pliable enough to push a tilling spade 18” into the soil.
   - When you walk across the perfect seedbed, you won’t stumble over old weed materials or dirt clods and your footprints should sink about ¼” into the soil when the field is dry.
   - To get the seedbed you want, it may take several mechanical operations, such as deep ripping 18” deep, if soil compaction exists, diskring to break up the larger clods, and a harrow operation to break up the smaller clods and smooth the soil.

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3. You should strongly consider planting a **cover crop** to protect the seedbed and to discourage weed growth.
   - The best cover crop is a hybrid sterile sorghum.
   - Prepare the seedbed as previously described in the spring around late April – early May.
   - Drill the sorghum at the rate of 4-8 pounds per acre on clay or loam soils and 6-10 pounds on sandy soils, with planting depth of 1” and row spacing of 14” to 21”.
   - Planting dates are early June for sandy soils and late June for heavier soils.
   - The cover crop will germinate and within 7 to 12 days and will typically out-grow and out-compete invasive weeds over the summer.
   - Mowing may be necessary if there was significant growth of the cover crop, with the stubble 12” to 14” tall. Be sure to use mowing equipment that doesn’t leave a windrow.
   - If the weeds have been terminated and you have standing sorghum stubble, you are now ready to plant grass.

4. Dryland grass seeding can be done between November 15th and April 30th on unfrozen ground. Irrigated grass seeding can be done between November 15th and June 30th when the soil isn’t frozen.
   - Be sure to use a good quality no-till grass drill to do your seeding. Grass drills and grain drills aren’t the same.
   - If you broadcast your seed, double the seed recommendation rate. For good seed-to-soil contact, spread weed-free mulch over the seeding.

Seeding depth for the grass seed should be ¼” to ⅜”. One of the biggest reasons grass plantings fail is the seed was planted too deep.

Contractors can do the soil and planting work discussed in this article. Developing a hearty grass stand on your land takes planning, preparation and resources. However, it’s one of the best decisions you can make to improve your property.
FRIEND OR FOE

Can you find the noxious weeds?

Answers on page 8
# Noxious Weeds

A—African Rue (*Peganum harmala*)  
E—Yellow Toadflax (*Linaria vulgaris*)  
C—Houndstongue (*Cynoglossum officinale*)

Noxious weeds are non-native plant species which have the ability to outcompete native plant communities and spread rapidly. Commonly noxious weeds become established in areas that have been disturbed by activities such as overgrazing. Weed seeds can spread via wind, water, tires, people, and animals. Noxious weeds are often very hard to control once they’re established.

**The Colorado Noxious Weed Act** enables county and city governments to implement management programs aimed at undesirable plants to reclaim infested areas and protect weed-free areas.

**The best strategy is to identify and treat early weed infestations.** For specific mechanical, biological, and chemical treatment options of noxious weeds, visit the CO Department of Agriculture Noxious Weeds Management Program [http://www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1174084048733](http://www.colorado.gov/cs/Satellite/Agriculture-Main/CDAG/1174084048733) or call your local weed district.

# Native Plants

B—Colorado Columbine (*Aquilegia coerulea*)  
D—Pussytoes (*Antennaria parvifolia*)  
F—Blue grama grass (*Bouteloua gracilis*)

![Colorado Columbine](image2.png)

**More Information on Colorado Native Plants:**

Colorado Plant Database, CSU Extension [http://www.co.jefferson.co.us/coopext/intro.jsp](http://www.co.jefferson.co.us/coopext/intro.jsp)

“Native Plant Revegetation Guide,” Colorado State Parks


![Alderleaf Mountain Mahogany](image3.png)  
*Cercocarpus montanus*
Know Your Farmer… Know Your Food

By Kristi Gay, Program Coordinator, East Central Colorado RC & D, USDA NRCS

Eating local has many benefits. It means products are fresher, which can keep us healthier. It’s better for the environment because the food doesn’t have to travel as far to get to our tables. And it can stimulate our local economies creating jobs and supporting local producers.

There are many options available for Coloradans to indulge in local food.

Join a CSA (Community Supported Agriculture) where you pay the local farmer at the beginning of the season, and then get food each week as it is ready to harvest. To find a CSA near you, visit Local Harvest at http://www.localharvest.org/csa/

Shop at your local farmers market. To find a Farmers Market near you, visit http://www.coloradofarmers.org/

Look for, and request, locally grown produce at your grocery store.

Start a garden. Grow your own vegetables and herbs. Remember to plan ahead and choose plants that are adapted to your climate. Check out the CSU Extension factsheet, Planning a Vegetable Garden at http://www.ext.colostate.edu/ptlk/1811.html

Become a member of a Coop such as The High Plains Food Cooperative (HPFC) which operates like a farmers market, but with a twist. The HPFC brings the farmer’s market to your front door. The HPFC is a grassroots network of High Plains and Rocky Mountain Front Range producers and consumers uniting interests in locally grown food and other locally made products. Consumer members place orders online three weeks out of the month. Once orders close for the month, farmers meet HPFC volunteers with packaged orders for delivery by the coop. Consumers make arrangements to meet HPFC volunteers at the nearest “drop sites” or they may meet HPFC volunteers at several established farmers markets in the Denver/Boulder area.

Check out the HPFC website to browse available products and learn more about current HPFC family operated farms and ranches in both Kansas and Colorado. www.highplainsfood.org

Did you know?
On average, produce in your market has travelled 1500 miles to get there, losing freshness and using oil every step of the way.
Animal Grazing Habits and Their Effect on your Pasture

By Sharon Bokan, Small Acreage Coordinator, CSU Extension Boulder County

Imagine the Great Plains 200 years ago. You had an environment with many animal species utilizing the same prairie and yet not overgrazing it. If you take a look at each animal species that existed, you will see that each had their own preferred grazing method and plant species. Fast-forward to the present and think about how your animals grazing techniques affect the grasses and other vegetation in your pasture. They still use different techniques to get the grass or forbs in their digestive systems. Each animal species still have forage preferences. So whether you have horses, cows, llamas, alpacas, geese, or sheep, understanding their grazing style can help you make the most of your pasture. If you have multiple species, you can time the grazing of each species to the advantage of the grasses, much like the prairies of old.

Ducks and Geese
Both ducks and geese have serrations on the edges of their bills, which allow them to forage and graze. Like other poultry, they graze but do not chew their food. It is passed to their crop which uses pebbles they swallow to grind the forage. Geese are the better grazers and can survive strictly on a grassy pasture. Ducks tend to be more foragers and should be fed waterfowl feed in addition to whatever they can find. Geese prefer young grasses and clovers but are not fond of alfalfa or tough narrow leafed grasses. Geese can be good weeders, as they will eat horsetail, chickweed, clover, puncture vine and other weeds. Geese and ducks would do well on either a pasture that you need weeded, especially if the grasses are less desirable species (tougher such as fescue, wheatgrasses) or a well-established pasture. They need to be kept out of pastures where you have grass seedlings.

Ruminants
Ruminants have a 4-chambered stomach (not 4 stomachs) and include cattle, sheep, and goats. Their mouths have molars in the rear and only lower incisors. Above the lower incisors is a hardened area called the “hard plate.” Pseudo ruminants have a similar mouth set-up, but they may have canine teeth, not used in food digestion.

Goats
Goats are ruminants like cattle and sheep. They are browsers, meaning that they will eat not only grasses, but also forbs, such as weeds and other broadleaf plants, and also trees and shrubs. They only chew their food long enough to get it moist with saliva. The “cud/bolus” then goes into one part of their 4-part stomach to be wetted by digestive juices. They will later bring up the food and chew it - “chewing their cud.” It then goes to another part of their stomach for final digestion. Since goats are browsers, they prefer the broad leaf plants and shrubs that cattle don’t normally eat. They tend to prefer leaves, twigs, and vines and also eat the tops of plants.

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Animal Grazing Habits
Continued from page 10

Sheep
Sheep are also ruminants, like goats and cattle, and graze in the same manner as goats. Sheep though do not eat the wide range of forage as goats. They will eat grasses and broadleaf plants, but not trees and shrubs that goats will eat. Sheep prefer to eat close to the ground (a habit that initiated the sheep cattle conflict in the 1800s). Sheep, like goats, can complement cattle grazing by eating the grasses and forbs that cattle leave behind.

Cattle
Cattle are ruminants but they are strictly grass grazers, although they can be trained to eat some broad leaf plants. They go for quantity not necessarily quality. Having your pasture well rooted is vital for cattle grazing so that they don’t pull plants out. Newly planted grasses would be most susceptible to this type of grazing.

Pseudo Ruminants
Llamas and Alpacas
Llamas and alpacas are considered pseudo ruminants. They have a 3-part stomach instead of a 4-part stomach. The 3 parts function basically like the 4 part ruminant digestive system. Originating in areas of South America with sparse vegetation, their digestive system is extremely efficient in converting marginal forage into needed nutrients. They, like sheep and goats, will feed on forbs and shrubs as well as grass.

Non Ruminants
Horses
Horses are not ruminants but are considered “hind‐gut fermenters.” They must fully masticate (chew) their feed, as they do not chew their cud later. Feed in a horse continues straight through the digestive system, being fermented as it passes. Horses have both upper and lower incisors and can be selective in the vegetation they graze, preferring tender, young grass. They also have a full set of molars to fully chew their feed. Horses are mainly grass grazers although they may sample or accidentally consume other vegetation such as alfalfa and other plants. They can also be very selective, only picking out the grass species that they prefer. If there is nothing growing in the pasture but broad‐leaf weeds, they will consume the weeds if that’s all that’s available.

Grazing a combination of species, especially sheep and cattle, has the advantage of parasite reduction in both species. The parasites that infect sheep do not infect cattle and visa versa. So to reduce the parasite load and also make maximum use of your pasture, you could allow your sheep in first, as they prefer the finest forage, then bring in the cattle, and finally horses. You could also have all three in the pasture at the same time, if you have a limited number. Each will pick their own favorite forage as long as they all get along with each other.
NRCS announces new Air Quality Initiative funding through the federal Environmental Quality Incentive Program (EQIP). Eligible agricultural landowners and producers in the Front Range can implement conservation practices on their land that benefit air quality by reducing ozone precursors, oxides of nitrogen (NOx), volatile organic compounds (VOCs) emissions, and ammonia from agricultural sources.

Many Conservation Practices are available for cost-share. Some examples include:

- Composting Facilities
- Conservation Crop Rotation
- Cover Crop
- Windbreak Establishment or Renovation
- Fuel Break
- Forest Slash Treatment
- Riparian Forest Buffer or Herbaceous Cover
- Irrigation System and Water Management
- Pasture and Hay Planting
- Prescribed Grazing
- Pest Management
- Watering Facility (livestock)

The deadline for application is April 16, 2010. But start now as the application process may be lengthy if you have not worked with NRCS in the past.

Contact your local NRCS office for eligibility criteria and to apply for funding. Visit [www.co.nrcs.usda.gov](http://www.co.nrcs.usda.gov) for contact information, or call 303-659-7004 ext.3.
The Native Plant Master™ Program

Sign-up for 2010 Courses

Participants in the award-winning Native Plant Master Program learn identification, ecology and human uses of selected Colorado plants. Many courses include an emphasis on learning to use a botanical key including scientific names and families. Most are held outdoors, but a few are classroom sessions to prepare students for the field. Courses are open to all except for a few advanced courses that have prerequisites.

Those wishing to educate others may apply to become a volunteer. Volunteers who pass three specified courses and satisfy the teaching requirement are certified by Colorado State University Extension as Native Plant Masters.

Native Plant Master courses are offered in a variety of locations across the state. For more information, see www.conativeplantmaster.org.

Growing your Future in Larimer County

March 13, 2010
Fort Collins, CO

The Larimer County Agricultural Advisory Board will host its first educational program on March 13, 2010, from 8:30 a.m. to 5:00 p.m. at the Larimer County Courthouse, 200 W. Oak Street, Fort Collins, CO. John R. Stulp, Colorado Commissioner of Agriculture, will open the general session with an overview of the value agriculture brings to our state and local economies. Following Commissioner Stulp will be topics on the history of water and its use in Colorado, grazing management, weed control, wind and solar use, global climate change, and agricultural marketing as it relates to business planning, agricultural taxes and starting an ag. related business.

Speakers from Colorado State University Extension, the Natural Resources Conservation Service, the Larimer County Weed District, and professional practitioners will provide attendees with a greater understanding of a variety of issues related to a successful agricultural operation. Vendors from various sectors of the agricultural community will be available throughout the day to help answer your questions and illustrate their products and services.

The cost to attend this all day event is $25 per person, which includes lunch. Late registration after March 7, 2010, will be $35 per person. For a complete list of programs, speakers and to obtain a registration form, please visit the Larimer County Extension web site at www.larimer.org/ext and click on current events or call 970-498-6000.

Wind Workshop

March 20, 2010
Gilpin, CO

Free!
Are you interested in learning about whether wind energy is right for you? We will cover the basics of wind energy for Gilpin County and surrounding areas using real data -- we have had an anemometer up for over a year, and a wind turbine (provided by United Power) up since Jan 7. We will cover the basics of wind energy, the implications of the data, how much production you might expect, costs, sitting, and more. We will also be covering some of the new renewable rebates coming from the State of Colorado and United Power for solar electric, solar hot water and a new wind rebate available in 2010 for residential and commercial customers. You won’t want to miss out!
Reservations REQUIRED! Space limited. Call 303-582-9106 to sign up.
Wildlife Workshop

April 3, 2010
Strasburg, CO

Join us from 10am-2pm on Saturday, April 3. Lunch will be provided! Topics will be presented on Preventing Wildlife Damage to Windbreaks, Minimizing Damage to Associated Species During Prairie Dog Control, Managing CRP for Wildlife Habitat, Managing Riparian Areas for Wildlife Habitat, Backyard Bird Habitat, CDOW Private Lands Program, and NRCS Wildlife Conservation Programs.

RSVP by March 25 to Deer Trail and East Adams Conservation Districts at 303-822-5257 ext. 101.

Planning for a Sustainable Homestead

April 15, 2010
Lunch & Learn Webinar ( Noon-12:30)

Eat your lunch while learning about how you can plan for a sustainable homestead. Join us online for this free webinar. We’ll discuss tools and resources which will help you make plans, assess goals, map your property, and inventory your resources.

Register for the webinar by emailing your name and email address to Jennifer Cook at Jennifer.cook@colostate.edu or call 303-659-7004 ext.3

Wildlife on Your Property

May 13, 2010
Lunch & Learn Webinar ( Noon-12:30)

Eat your lunch while learning about wildlife on your property from Private Land’s Wildlife Biologist, Noe Marymor.

Register for the webinar by emailing your name and email address to Jennifer Cook at Jennifer.cook@colostate.edu or call 303-659-7004 ext.3

CSU Small Acreage Management website
www.ext.colostate.edu/sam/