Boulder County Small Acreage Management Newsletter

Fall 2020

http://boulder.extension.colostate.edu/natural-resources/

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From the SAM Coordinator

I hope that you are all staying safe and healthy. I doubt that many thought we would still be facing the restrictions we have in our everyday life. Our office is still closed but staff is working from home. Please feel free to contact me with any questions you have. I'd be glad to answer any questions.

Wishing you a very Happy and Healthy Thanksgiving.

Stay safe and healthy.
Thank you,

Sharon Bokan
Small Acreage Coordinator
sbokan@bouldercounty.org
303-678-6176, Cell 720-202-1969

SAM Newsletters Online

View previous newsletters via the SAM link above.

SAM Email Listserv

If you are reading this newsletter for the first time and are not subscribed to the Small Acreage listserv, you may request subscription by contacting the Small Acreage Coordinator sbokan@bouldercounty.org . This quarterly e-newsletter and other timely info will be distributed via this email listserv.

Subscribers may use the listserv also as a SAM info gathering mechanism. For example, you may inquire about who is available in the area supply hay, to perform swathing/baling, etc. The listserv is not a marketplace, however. Because it is hosted on the CSU server, NO COMMERCIAL EMAILS ARE ALLOWED. DO NOT ATTEMPT TO SELL ANYTHING VIA THE LISTSERV – THANK YOU! I will remove you from the listserv if you use it in this manner. Use the newsletter ad section for these purposes.

Weather Outlook

The NOAA forecasts for the next 30 and 90 days are showing that the state will be above normal in temperature and the state about normal in precipitation.
https://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=1

If you have not checked out NOAA's website, they have a lot of good information beside their predictions. There are sections for children, their publications and preparing for various weather conditions. https://www.weather.gov/

Coming events and workshops

Weld County Extension is holding a **Poultry Production webinar** series in December. The series includes sessions on production basics, nutrition, disease & biosecurity and harvest & food safety. You can register for the series at https://www.weldgov.com/departments/csu_extension/livestock_programs/poultry_program

Extension Office Information

The Boulder County Extension Office is currently closed, and staff is continuing to work remotely. Boulder County is working on a phased opening plan for county offices. The re-opening is of course dependent on infection rates decreasing. If you need plants identified, you are welcome to send me photographs. When taking the photos try to provide some close ups of leaves, flowers or seed heads (even old seed heads from last year can help). Grasses are harder to identify via photo but if you can provide photos of last years seed heads that helps. Please do not hesitate to contact me with questions and I will do my best to help you.

Fall Small Acreage Tasks

Fall weed management

There is a limit to what weed management you can do at this point in the fall. Weeds have either died (annuals and second season biennials) or are dormant (first year biennials and perennials). Removal and disposal of dead annual and biennial weeds that may still have seeds attached reduces the number of seeds that you have in the ground for next year. You can undercut and remove the first season rosettes of biennial weeds.

There are a few perennial weeds that you can spray in the fall but most perennials you need to wait until spring to spray. As always, identify your weed and then determine what are the methods you can use to manage the weed, the best herbicide to use and the growth stage to spray for maximum effect.

Fall pasture management –
Grasses are going or are dormant. Once this happens, livestock can graze as long as you make sure you maintain a 4" stubble.

Reseeding –
You have until April 30th to reseed.

Water –
You don't need to be doing any irrigating now.

Plans and priorities –
Take time this fall and winter to do planning, cleaning and repairs.

Reseeding a pasture or property

Reseeding a property is a multi-year project, even longer if weather conditions aren't in your favor. A reseeding project can take 3 – 7 years depending on weather conditions and the area's condition prior to reseeding.

The first step is to manage the weeds so that they won't compete with the grass seedlings. Identify what weeds you have and the management methods you can use. Depending on how many weeds and what type of weeds you have determines how many years you need to do weed management before you reseed. Be sure to read the label on any herbicide you use to make sure that it will not prevent you from reseeding. Some herbicides (especially pre-emergents) have a soil residual that prevents not only weed seeds from germinating but also grass seed. If you have to use one of these herbicides, plan on using a cover crop instead of planting grass seed until the herbicide is no longer effective.

Tilling the soil is optional unless you have very compacted soil. When you till the soil, you expose buried weed seeds that may then germinate. If you do decide to till, plan on at least one year of cover crop prior to planting grasses to allow for weed management.

Planting a cover crop provides competition for the weeds while protecting your soil and allowing you to continue to do weed management. Cover crops that work well for weed management are triticale, millet or oats. The cover crop can be drill seeded or broadcast seeded. Cover crop seed is larger seed and can be planted deeper than grass seed. It can be planted 1 – 2" deep. Which one you use depends on when you plant them. Winter triticale can be planted in the fall while spring triticale, millet or oats are planted in the spring or early summer. You don't need to plant the cover crop as heavily as you would if you were going to harvest a crop. You just need enough to compete with the weeds. You can spray, mow or graze the cover crop. Use the cover crop for more than one year if you need additional time to manage weeds. Once you think you have weeds to a minimum (you'll never get rid of all of them), you need to graze or mow the cover crop down to 4 – 6" tall. You plant directly into the cover crop stubble. The stubble keeps the soil in place and cooler, collects any precipitation that falls and protects young grass seedlings.

The seeding window for pasture and native grasses is November 1 to April 30th. There are debates as to when is the best time to plant. It may come down to when you can get the seed in the ground. Spring planting can be a challenge depending on how wet the spring is. Planting in the winter allows the grasses to vernalize and absorb any moisture in the ground. You can't plant into frozen ground so you will need to make sure the top 1/2" of soil is

not frozen. Quite often we have days in January that are warm enough to thaw the top layer of soil to allow planting.

Your choice of what grass mix you choose depends on the goals for the property, the type of soil and the availability of irrigation. If you are going to be allowing livestock to graze the property, you'll want to have grasses that the livestock will eat. If you don't plan on livestock, you might consider native grasses. Your location also determines what grasses you can plant. If you have sandy or saline or sodic soil, you need to choose grasses that do well under those conditions. A mix of grasses is better than just a single grass species. Variations across your property may favor specific grasses so having a mix allows the grasses to adapt to the growing conditions on the property.

Grass seed like the cover crop can be either drill or broadcast seeded. You need to be more careful with the grass seed than you are with the cover crop seed. Grass seed is much smaller than cover crop seed so it cannot be planted very deep. Drill seeding with a grass drill (not a grain drill) is more accurate seed placement than broadcast seeding so you purchase less seed when you drill. For broadcast seeding, roughen up the soil with a rake or harrow, spread the seed over the area and then lightly rake or harrow the area. Don't try to get all the seed incorporated into the soil or you will get it planted too deep. You want at least part of the seed in the ¼ - 1/2" depth range.

Once the seed is planted, all it needs is time and precipitation. When the conditions (soil temperature and moisture) are right for germination, grass seed can take from 2 – 4 weeks to germinate. Not all seed may germinate the first year. Native grasses especially can take several years before they germinate. Dormancy is a trait that allows seeds to survive undesirable conditions such as drought and still be able to germinate when conditions improve.

Newly seeded areas look weedy for several years until the grasses are well established. No grazing should be allowed for at least one growing season, preferably more to allow the grasses to establish.

Home Composting

Trees are beginning to lose their leaves, your garden plants are done and if you don't have access to commercial composting pickup, you may want to try composting them in your yard. Composting is not as difficult or as time consuming as you think. Composting provides organic material to improve soil and reduce wastes that reach landfills by 20 to 30% or more.

You do not need a fancy compost bin unless your homeowner's association has a covenant requiring one. A simple pile with some space to be able to turn it is all you need. Materials that you can put into a pile include leaves, garden waste, spent blossoms, manure and vegetable scraps. Materials that you do not want to put in the pile are milk products (cheese, yogurt, etc.), meat scraps, eggs and pet wastes. These materials can make the pile smell, attract

animals and spread disease. If you live in an area where bears visit, you should put only yard wastes (minus any fruit such as apples) in the pile so that you don't attract them to your yard. Locate the pile so that it is convenient to add to, turn and where water is easily accessible.

Compostable materials are divided into brown (carbon source) and green (nitrogen source) materials. Brown materials include straw, dry vegetation and leaves. Green materials include kitchen scraps, grass clippings, cuttings from perennials and garden wastes. When building the pile, you need a 30 to 1 ratio of brown material to green. This works out to approximately an equal volume amount of each. Shred or cut up the materials to expose more surface area and accelerate the process. Materials need to be ½" or smaller in size to rapidly compost. Sawdust can be composted but should be used in small layers as it tends to compact and not allow air. Mixing it up with the other brown materials is a good way to use it.

Place about 4 inches of brown material to start the pile and then place about 4 inches of green material on top and mix the two layers together thoroughly while watering the materials. Compost should be like a wet sponge that when squeezed gives just a few drops of liquid. Continue adding layers, mixing and watering until all the material is used. The minimum size for an active pile is 3'X3'X3'. The pile is now finished. You do not need to add a compost activator because the materials have enough microbes to start the decomposition process. A properly constructed pile should reach over 100 ^{o} F in the center within 24 – 48 hours.

Within a week you will notice that the pile has shrunk to about half the size that is was. This is due to the microbial action and compaction. In order to keep the action going, you need to periodically turn the pile and add additional water. Turn the pile so that the outside materials become the interior part of the pile. The two most important requirements for decomposition microbes are air (provided by periodic turning or aeration) and water. In our dry climate, insufficient water is usually the reason that a compost pile is not active. An active composting system should have temperatures between 90 – 140 ^{o} F in the pile center. Continue turning or aerating the pile every 4 to 7 days until the compost is finished to your liking (thoroughly composted for a soil additive or partially composted to use as a mulch).

Problems that you may encounter with the pile are:
Smells – ammonia smell due to excess nitrogen, add more brown material; rotting smell, the pile needs to be turned (anaerobic activity) or pile is too wet, add dry material
Pile not heating up - over watering or insufficient nitrogen or turning the pile too frequently or pile is too small
Materials not breaking down - all materials compost faster the smaller they are

Cheatgrass

It's that grass whose seeds get caught in your shoes and socks when you go hiking, cheatgrass (aka. Downy brome *Bromus tectorum*, Japanese brome *Bromus japonicus*) is a winter annual Colorado List C noxious weed. Originating in Europe, it grows on the decaying straw thatched roofs in the Mediterranean region. This is how it got its name; "tectum" is Latin for roof, so "brome of the roof". It got its common name, cheatgrass, from the fact that it germinates early, some years in August or September, over winters and is taking up moisture and nutrients early in the spring before most other plants are actively growing.

Being an annual, it only reproduces by seed. Not all the seeds germinate the year they are produced. Some seed survives in the soil for up to 5 years. Cheatgrass plants mature and produce seed by June. Infested areas can have 600 to 1200 plants that produce approximately 1600 seeds per square foot or 478# per acre. Cheatgrass seedlings are identified from other grasses by being one of the first grasses up and growing each year. They are very soft hairy seedlings often with a reddish tinge during the winter.

Cheatgrass has altered our wildfire regimes. Because it matures so early in the year, it is tinder dry during the hot summer months that readily and intensively burns. Historically, wildfires occurred approximately every 30 years in the foothills, but this timing has been reduced to approximately every 3 years in cheatgrass infested areas. Cheatgrass also changes the nitrogen distribution in the soil profile. It is a nitrogen user, so it uses the nitrogen in the upper profile causing a nitrogen deficiency. Over fertilizing early can favor cheatgrass growth.

The management key is keeping it from going to seed by grazing, mowing or pulling and being persistent! If you have grazing livestock and poultry, cheatgrass can be grazed early on before the flower and seed head come out. If you can over graze the cheatgrass without overgrazing your desired grass/es, you stress the cheatgrass and make it easier to manage. If you are mowing, mow high the first time so when it produces a second flower/seed head you have height to be able to mow lower the second time. If you mow it to the ground the first time, it may set its' second flower/seed head lower than you can mow. Set your mower to cut just below the seed head. If you are ambitious, you can pull the plants. With a little moisture, they easily pull out of the ground. If they have not gone to seed, you can compost them. If they have flowers or mature seeds, you need to dispose of them in the trash. Once the heads come out, you do not want to continue grazing. The seed with the awn can get lodged in an animal's mouth or eyes causing sores and ulcerations or in fleece lowering its value.

Because it is a grass, trying to manage it growing among other grasses and forbs is hard. For the urban dweller, hand pulling is feasible. For those with larger lots and acreages, you need to at a minimum mow to prevent or lower seed production or consider using an herbicide. Management is best done when the plants are small. Don't wait until it is producing seed to start managing it. Organic herbicides can be used when the plants are small. Organic herbicides are non-selective so they will damage or kill desired plants too so they must be used with care. There are synthetic herbicides that can be used to manage cheatgrass. Care must be taken to choose the correct herbicide and use it according to the label.

References:

http://www.ext.colostate.edu/pubs/natres/06310.html

http://www.wyomingextension.org/agpubs/pubs/B1246.pdf

Fall rodent visitors

As the weather cools and bears are headed to hibernation, mice may be seeking the warmth of your home and voles may be setting up their homes in your landscaping. How do you keep these unwanted visitors out of your house and protect your landscape plants?

Start inside the house by storing food in rodent proof containers. Store cereal, rice, flour, noodles, chips and other foods in either metal or heavy plastic containers with tight lids. Immediately clean up any food spills. Keep the area where you feed your pets clean and don't leave their food out after they have finished eating. Make sure that you do the same in your garage if you store pet, bird or poultry feed there. Metal trash cans with tight fittings lids work well to keep rodents out of livestock feed. Exclusion is essential to keep mice out of the house. Check around your house for openings where mice can enter. Mice can squeeze their bodies through a ¼" diameter hole, basically the size of a pencil eraser. One of the most likely places for them to enter is an opening around the pipes in your house. Start by finding where pipes come through the foundation or walls and under sinks. The opening in the foundation, wall or cabinet base is normally larger than the pipe diameter and the pipe is a great pathway into or around the home. The easiest way to close these openings is to stuff steel wool into the opening. You can use a spray foam insulation to secure the steel wool in place. Don't use the foam by itself as mice like to chew on it. You need the combination to keep them out.

Look around your foundation for cracks or other openings that are ¼" diameter or larger. You can repair those cracks or openings using steel wool and caulking or foam. For any vents (i.e. dryer vent or other air vent) that are near to the ground, cover them with heavy duty screen material (also known as hardware cloth) with openings of ¼" or less.

Another rodent that you may have problems with over the winter is the vole. While they most likely will not enter your home, they can damage or kill landscape plants. Vole damage tends to be cyclical with more damage occurring during those years when we have snow cover lingering for longer periods. The voles make tunnels under the snow and avoid being caught by their predators. For the plants that you can protect such as shrubs and young trees, enclose the trunk with heavy duty screen with less than ¼" size openings. If you can, bury the screen a couple of inches deep into the soil. Mature trees do not need to be protected as their bark is thick enough to keep voles from chewing on them. During the winter when we have snow cover, voles create tunnels under the snow and chew on the lower bark and roots of young trees and shrubs. If you have shrubs like junipers with branches laying on the ground, remove the lower branches so that a predator such as a fox or your pet can get to the voles. Doing one last

fall mowing of your lawn also helps to keep voles from doing as much damage.

If you live near an open field or open space, you can expect to have more problems with both rodents. There's a limit to what you can do if you live in this situation with exclusion being your best tool. Pets, cats and dogs, can help by hazing the rodents and providing a "predator" odor around your property.