



Extension



# Boulder County Small Acreage Management Newsletter

Spring 2011

<http://www.extension.colostate.edu/boulder/acreage.shtml>

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### **From the SAM Coordinator**

Well it has been another interesting weather year in Colorado. When I looked back at the last issue of the newsletter, the weather was supposed to be warmer and drier than usual. With the recent rains, we are almost caught up from the lack of precipitation this winter. However, all the snow in the mountains also means the potential for flooding if the snow melts too quickly. Let's hope that we have a slow warm up and the snow melts slowly.

The Equine Herpesvirus outbreak brings up the importance of being aware of how diseases can spread and how small acreage owners can protect themselves and their animals. We hope that the information we provide will help you be well informed and make wise decisions.

Happy Spring,  
Sharon Bokan  
Small Acreage Coordinator

View previous newsletters via the SAM link above.

### **SAM Email Listserv**

If you are receiving this newsletter for the first time and are not subscribed to the [boco\\_small\\_acreage@colostate.edu](mailto:boco_small_acreage@colostate.edu) listserv, you may request subscription on the SAM website (linked in header above). 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 – THANKS.** Use the newsletter ad section for these purposes.

Currently, there are 216 subscribers to the listserv

## Snow pack and water Outlook

From the NRCS (Natural Resources Conservation Service) as of May 1, 2011, the Colorado snow pack statewide is above average in most of the state with the exception of the Rio Grande basin.

The NOAA forecasts for the next 30 and 90 days are showing that the state will have equal chances of having warmer or cooler temperatures than normal and the same for precipitation and the same for precipitation. In other words, they're not sure what will be happening. Predictions were for us to have lower than normal precipitation. This was true until recently. But as we all know Colorado weather can be very unpredictable and not follow the predictions.

<http://www.cpc.ncep.noaa.gov/products/predictions/90day/>

Just remember that just because we are getting precipitation now. It can just as quickly stop raining and dry out quickly with hot summer temperatures. Also we had a very dry winter so our soil moisture levels are just recovering.

## In the Planning Stages

Over the course of the summer, we will have a series of webinars each one concentrating on a specific species of livestock. The webinars will cover basics about the species.

August 29, 2011 from 12:00 – 1:00 pm

Raising a Healthy Poultry Flock

August 31, 2011 from 12:00 – 1:00 pm

Alpacas and llamas on Small Acreages

September 29, 2011 from 12:00 – 1:00 pm

Fundamentals of Small Acreage Swine Production

On Saturday, October 15, there will be a Livestock on Small Acreage Workshop. We are currently lining up our speakers for the workshop, location and cost. Contact Jennifer Cook to register for the webinars.

[Jennifer.cook@colostate.edu](mailto:Jennifer.cook@colostate.edu) If you miss the

webinars, they will be posted on the CSU Small Acreage website at

<http://www.ext.colostate.edu/sam/index.html>

We hope to do a Grazing Management workshop and Weed Management workshops this summer. As we get dates and details set, we will let you know.

So stay tuned to the newsletter and e-mails for details on these events and others to come.

## EHV- 1

By CSU Veterinary Extension Team

CSU Veterinary Extension Team wants you to be informed about the current EHV-1 outbreak that can affect your horses and your camelids (alpacas and llamas). The situation is constantly changing so we encourage you to refer to reliable sources of information. Word of mouth and blogs are filled with erroneous and hysterical claims. Avoid them. There are good places to go that will give your trustworthy information.

A great source of information about the disease in Colorado can be found on the Department of Agriculture website (

<http://www.colorado.gov/ag>) where there are links to many informative sites. Here you can find information on the disease in general, biosecurity recommendations, vaccination protocols, updates on the situation in Colorado. Other great resources include our website (<http://veterinaryextension.colostate.edu/index.shtml>) where you can find information about the disease in llamas and alpacas who are also susceptible. The Horse.com sponsored a webinar on May 24 that not only was informative but interactive answering many commonly asked questions. This will be archived shortly.

The most important thing you can glean from this information is that at this time it is best for

you and your horse to stay at home and away from other horses. Events that you wish to attend this weekend will probably be canceled but this will hopefully slow the spread of the disease and insure that public event locations do not get contaminated with the virus and possibly limit their use later in the summer.

Stay at home. Be part of the solution, not the problem.

## **Biosecurity for Small Acreages**

By Sharon Bokan, Small Acreage Coordinator

With the Equine Herpesvirus – 1 (EHV-1) outbreak, small acreage owners may be wondering what they can do to help protect their animals from outbreaks. As with human diseases, keeping animals healthy and vaccinations up to date is always the first step. Limiting exposure to potential sources is also important. Animals that go to shows are exposed more often and also can be stressed due to travel to get to the event. When an animal begins to show symptoms seek treatment as soon as possible and isolate the animal from others.

The following information comes from the United State Department of Agriculture, Animal and Plant Health Inspection Service. While some of the information sounds scary and extreme, there are some simple, practical steps that you can take to help keep you and your animals safe and healthy.

The 2 key elements for biosecurity are “Keep It Clean” and “Keep It Away”.

### **Keep It Clean**

1. Wash hands thoroughly before entering area and handling animals and after handling animals, especially those that are showing symptoms.
2. Clean and disinfect on routine basis any and all equipment that comes in contact with your animals or their waste. Prior

to disinfecting equipment remove dirt and manure. If you borrow tools or equipment (not a great idea) clean and disinfect them prior to bringing onto your property.

3. Disinfect shoes on a routine basis. Again remove dirt and manure prior to cleaning and disinfecting. Preferably keep a separate pair of shoes to use when working with animals. Disinfect shoes after visiting another property prior to returning to your property.
4. Wear clothes that you only use for working with animals. If you visit another facility take along clothing (such as coveralls, overalls) that you can remove when you leave the property. Wash and change clothes prior to working with your animals.

### **Keep It Away**

1. The best treatment is prevention. Do not allow other animal owners to visit your animals is the best policy. However, this is really not practical. If they do visit consider providing overalls and overshoes for them to wear. Also they should wash their hands prior to handling your animals. Have separate boots or boot covers, clothing for visitors. Have them park away from the barn if possible, if not provide a way for them to disinfect their vehicle tires and shoes (i.e. farriers and veterinarians).
2. Keep your animal vaccinations up to date and check on the vaccinations of any facility you visit.
3. Use your own trailer to move your animals if possible and don't transport your animals with others. If you must ship your animals, make sure that the trailer is properly disinfected after each use.
4. Don't share equipment or tack.
5. Keep your animals away from others as much as possible.

6. Don't let strangers pet your horses.
7. Before you leave a show grounds, clean and disinfect tack, boots, etc.
8. Horses returning to the property after being at a show should be isolated for at least 2 weeks.
9. New horses to a property should be isolated for at least 30 days. Use separate tools for the new horse. Tools should be marked (i.e. Red paint or tape) so that they are only used for the isolation area. The new horse should be worked last or clean and change clothes prior to working with other horses. Wash hands and blow nose after working with the new horse.

#### Disinfectants

Household bleach - Mix 1 part bleach to 10 parts water (3/4 cup bleach per gallon of water). For metal equipment, bleach is corrosive so after disinfecting you may want to rinse off the bleach. Bleach solutions are not effective when dirt and manure are on the equipment so either clean equipment first or use a disinfectant that works when dirt and manure are present.

Spray disinfectants - Make sure the label indicates that it will kill both virus and bacteria.

Waterless hand sanitizers - Very portable and easy to use away from home. Make sure to work under nails and around fingers.

Other disinfectants - when using other disinfectants, please read and use according to the label. These work well for disinfecting trailers and tires on vehicles and equipment and in foot baths. Some product names are One Stroke Environ® and Tek-trol®.

You might consider setting up a disinfecting station prior to entering your barn and stable area. Provide a way to disinfect vehicle tires (drive through or spray on system) and shoes (a simple footbath as follows) or disposable shoe

covers and overalls. A foot bath can be a low plastic basin large enough to fit an adult size shoe but easy to step in and out of. Inside place a plastic doormat (the ones that are "fake grass" work well). The disinfectant should be deep enough so that the "grass" is wet. Then put in the disinfectant, one that works when shoes have dirt or manure on them is the best. Visitors can step in and wipe their feet and then step out. When the liquid begins to look brown, replace it.

While this has mainly been aimed at the equine community, the same protocols apply to all other livestock. So the bottom line is to not panic but be vigilant and do what you can to help protect your animals and yourself. Take similar precautions that you would during flu and cold season.

For more information, please see the references below.

#### References:

Colorado Department of Agriculture

<http://www.colorado.gov/ag>

USDA – APHIS

<http://www.aphis.usda.gov/vs/nahss/equine/ehv/>

Colorado State University

<http://veterinaryextension.colostate.edu/>

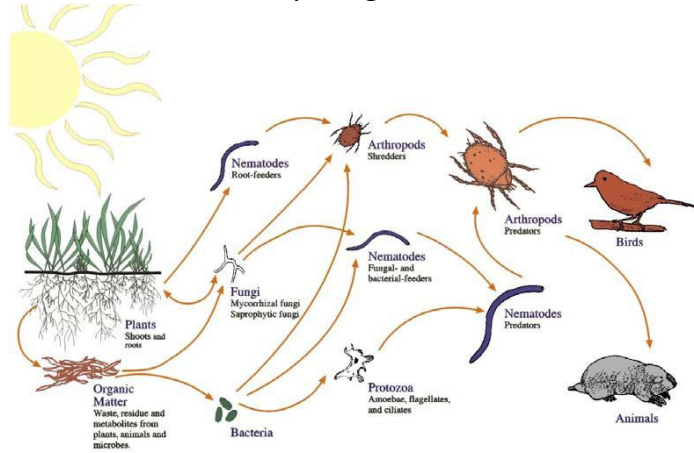
#### Living Soil

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

At the core of a small acreage, and the critical element for plant growth, is the soil. Let's take a look at what makes up typical soils in Colorado. Soils store and release nutrients and water to plants for growth, and secure plant roots. Soils are generated by rock decomposition or erosion into various particle sizes and types. Soils also contain organic material (decaying organisms), air, and water. Colorado soils are about half mineral, with the remaining half divided

between air and water, and a small percentage of organic material.

The mineral portion is made of clay, silt, sands, and gravel/rock particles. The proportion of each determines many things about



your soil, such as water holding capability and tendency to compact. We tend to think of Colorado soils as strictly clay but there are regions that are sandy (eastern Boulder County and eastern plains) or rocky with very little soil (mountains and foothills). A typical Colorado soil is some combination of all three of these particle sizes, sand, silt, and clay. Sand particles, due to their larger size (when compared to clay particles), allow for more air spaces, do not compact readily, and do not hold water as well as other soils. Silt is the next size smaller in soil particles. Silty soils have smaller air pockets and hold water better than sandy soils. Clay particles are the smallest particles. Due to their small size, clay soils more readily compact, driving oxygen out of the soil. While most people understand that plant foliage uses carbon dioxide and gives off oxygen, many do not realize that plant roots also require oxygen. If the soil is compacted, there is less oxygen for the roots, and plants will be stressed and vulnerable to diseases.

Compacted soils do not allow good water infiltration or root growth. So why not just add sand to clay soils or clay to sandy soils to prevent compaction or improve water holding

capability? Doing either of these will produce one of the earliest known building materials, adobe bricks. The best amendment to our soils, either sandy or clay, is organic matter, which helps the water holding capability of sandy soils and prevents compaction in clay soils. The basic physical structure and mineral content is only part of what makes up our soils. The organic material consists of decaying plant and animal life.

There is a whole system of vertebrates, invertebrates, insects, arthropods, bacteria, fungi, protozoa and other microorganisms that call the soil their home and support plant life. Within one teaspoon of soil you might find 62,000 algae; 72,000 protozoa; 111,000 fungi; 2,920,000 actinomycetes; 25,280,000 bacteria; and 50 nematodes. This doesn't even count the earthworms, insects, and larger mammals such as prairie dogs and gophers.

We think that downtown Denver is a busy place; it can't hold a candle to the soil. So what do all these organisms do? The vertebrates mix the soil, moving subsoil to the surface and mixing it with topsoil. Insects and arthropods help mix the soil, ingest some of the organic material, and contribute organic material via their waste and dead bodies. Earthworms mix and aerate the soil and ingest some of the organic matter. When they expel the matter, it is partially digested making nutrients available to plants. Worm castings, as they are called, are well known for their qualities as soil amendments. Algae cycle water and nutrients by producing organic acids that help make nutrients available to other plants and organisms. Algae do not decompose organic matter but their growth produces additional organic matter (their dead bodies). Fungi actively decompose organic matter. Fungi can also form relationships with plants. The plants provide fungi with food and the fungi enhance the availability of various plant nutrients (P, Zn, Ca, Mg, Mn, Fe and Cu).

Bacteria are critical in altering the chemical makeup of the soil. Autotrophic (self-nourishing) bacteria transform carbon dioxide and other inorganic minerals and chemicals in the soil from either unavailable or toxic chemicals to nutrients available to plants. Heterotrophic (other nourishing) bacteria rely on organic material in the soil for their own nutrition that they then transform into nutrients for plants. Protozoa control the bacteria population in soils.

Actinomycetes are a special bacteria with features that, like fungi, assist in the decomposition of organic matter and the release of nutrients to plants. Some even form a symbiotic relationship with plant roots to assist with nitrogen fixation. Other actinomycetes are important antibiotics such as Streptomycin.

Rhizobium bacteria nodules on a soybean plant roots. These bacteria help the plant fix nitrogen. Most nematodes in the soil are not plant parasites. Beneficial nematodes help control disease and cycle nutrients.



So next time you go walking or riding in your pasture, think about the life that is taking place in what appears to be lifeless particles of decayed rock, your soil.

Additional Soil Resources:

NRCS Soil Biology Primer

BLM National Science & Technology Center

Soil Biology Communities

<http://www.blm.gov/nstc/soil/index.html>

**Actinomycetes**

[http://soils.usda.gov/sqi/concepts/soil\\_biology/biology.html](http://soils.usda.gov/sqi/concepts/soil_biology/biology.html)



“We know more about the movement of celestial bodies than about the soil underfoot.”  
*Leonardo DaVinci*

### **Wildfire Preparedness for Small Acreages**

By Karen Crumbaker, CSU Larimer County Extension

Wildfire season has begun .... or did the 2010 fire season ever end? With wildfires already scorching land in the foothills along the Front Range in 2011, are you confident your home and property will survive a wildfire? If not, creating a defensible space around your home and other structures will increase the chances they will survive the threat of a wildfire.

Defensible space is the creation an area around a structure where existing vegetation is modified to slow the rate and intensity of an advancing wildfire. Defensible space improves a structure’s ability to survive a low intensity wildfire in the absence of firefighter intervention. It will also improve firefighter’s ability to safely protect structures. One scenario we may not consider is that establishing a defensible space around structures, you will reduce the likelihood of a structure fire spreading to create a wildfire.

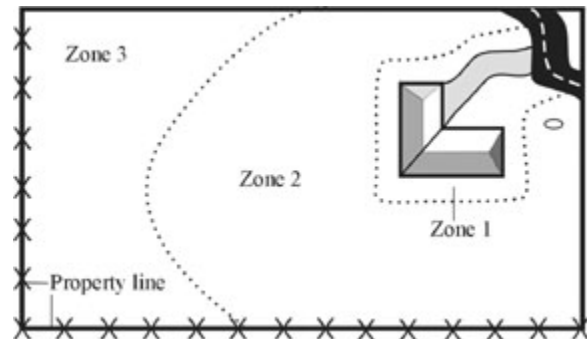
Defensible space is broken down into three zones. Zone 1 requires the removal of flammable vegetation with 15 feet from the outside edge of the home or barn. This includes raking leaves or pine needles that accumulate

throughout the year. By pruning branches of trees up to a height of 10' will help keep a ground fire from spreading to the canopy. Cheatgrass, also known as downy brome, is an aggressive noxious weed present in the foothills that arrives early in the spring and turns brown and dies by early summer leaving behind thick, continuous dry fuels and can create extreme wildfire hazards. Keep all grasses mowed to a maximum height of 6 inches. Finally, using decorative rock 3 to 5 feet from the siding of a structure will help protect the structure in the event of a ground fire.

The goal of Zone 2 is to create an area of fuel reduction around your home. The size of Zone 2 depends on the slope of the ground where the structure is built. The rate of fire spread increases as the slope of the land increases. Fuels are preheated by the rising smoke column or they may even come into contact with the flames themselves. Typically, the defensible space should extend at least 75 to 125 feet from the structure. Within Zone 2, ongoing maintenance requires removing ladder fuels. Ladder fuels are fuels that start at the ground and move into tree crowns. By removing shrubs and small trees or other potential ladder fuels from beneath large trees, the likelihood of fire reaching the canopy is reduced. Be sure to remove stressed, diseased, dead or dying trees and shrubs, as well as pruning branches of larger trees up to a height of 10'. Limbs and branches left from thinning (slash) can add significant volumes of fuel to the forest floor. These materials can accumulate and serve as ladder fuels and should be removed.

Zone 3 is an area of traditional forest management and is of no particular size. It extends from the edge of your defensible space to your property boundaries. Reducing fuels can improve the health, vigor and fire resistance of the forest.

To learn more about creating a defensible space around the structures on your property, visit the Colorado State Forest Service website at <http://csfs.colostate.edu/index.shtml> or Colorado State University Extension at [www.ext.colostate.edu/](http://www.ext.colostate.edu/).



While the defensible space zones require ongoing maintenance to the outside of a structure, it is important not to forget the structure itself. Take a look at the roof. Do pine needles accumulate during the year? If so, remove the needles from the roof and gutters yearly. Are there branches from nearby trees hanging over the roof? If so, trim these branches back away from the roof. We tend to like our firewood near the home so our trip to the wood pile in frigid temperatures is brief. Storing firewood under the deck or within 30 feet of the home creates an ideal situation for a wildfire to spread to the home. Be sure to place firewood at least 30 feet uphill from your home or other structure. Propane tanks can also become a problem in the event of a wildfire. Creating an area around the propane tank free of vegetation and tree branches can help reduce wildfire from reaching the propane tank.

One final consideration to maximize your efforts in creating a defensible space is to be sure firefighters can find and access your property. Placing your address on a metal t-post or other non-combustible support at the head of the drive will help firefighters locate your property. Be sure your driveway can accommodate access by fire trucks and other emergency vehicles.

Although there is no guarantee, taking the steps necessary and spending the time to prepare your property in the event of a wildfire will reduce the possibility a wildfire will damage the structures on your property. We never know what moisture lies ahead, so an ounce of prevention is worth a pound of cure.

### **Spring Grazing Considerations**

Avoid spring grazing until pasture grasses have reached a minimum height of 6-8". If possible create at least four grazing cells. After minimum grass height is reached move animals through cells, 7 days in each cell. Simultaneously, assess the minimum grass height in grazing cells and remove animals from any cell when the shortest grass is 3-4 inches tall, which could occur before 7 days.

See "Grazing Management" Factsheets on <http://www.ext.colostate.edu/sam/index.html> for more details.

### **Boulder Horse and Rider is looking for a Buyer!!!**

**Boulder Horse & Rider has operated in beautiful Boulder, Colorado for 8 years with a well-established loyal customer base. This is the only feed store and western/pleasure saddle shop in Boulder. The inventory consists of Western, Trail and Endurance saddles and tack; chaps, helmets, clothing, boots & shoes; gifts and local art; and, various grains/feeds. The owner is relocating, but is willing to stay and train new owners. All inventory is coded and tagged; and, there is a QuickBooks POS (computer-run cash register) system in place as of January 2007...thus making sales, inventory tracking and reorder very easy to do.**

**We have an extensive customer list and all inventory is currently up-to-date. If interested in more information, please email us at: [boulderhorseandrider@gmail.com](mailto:boulderhorseandrider@gmail.com).**

## **Place your SAM related classified ad or print advertisement here!**

### **Classified Advertising Rates are as follows:**

SAM Volunteer: 20 cents/word  
4-H Member/Leader: 20 cents/word  
General Public, Individual: 25 cents/word  
General Public, Business/Show: 30 cents/ word

### **Print Ad Rates are as follows:**

Quarter Page Ad: \$50.00  
Half Page Ad: \$80.00  
Full Page Ad: \$100.00

**Email Sharon Bokan for more details**  
**[sbokan@bouldercounty.org](mailto:sbokan@bouldercounty.org)**