



Extension



Boulder County Small Acreage Management Newsletter

Summer 2011

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

In this Issue:

Weather outlook – p. 2
Coming events and workshops – p. 2
New Conservation District websites – p. 2
Bird'sfoot trefoil – p. 3
Summer Pasture Considerations – p. 3
Getting the most out of your hay – p. 3
Grasshoppers – p. 6

From the SAM Coordinator

The Canada geese are flying and there's been a cool fall hint in the morning air. It's definitely a sign that we are headed into fall. Fall is still a good time to do weed control and pasture management evaluation.

After multiple years of putting this newsletter together, we need your ideas for articles you would like to see. Sometimes there are hot topics that make it easy to put together an article and other times, we need ideas. If you have a question or a topic that either we have not covered or you are wondering about, please send your idea into me. We'd be happy to consider it.

Thank you,
Sharon Bokan
Small Acreage Coordinator
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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 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

Weather Outlook

The NOAA forecasts for the next 30 and 90 days are showing that the state will have higher temperatures than normal and equal chances for either above or below normal precipitation. So far this year we have done well in precipitation and stream flow until recently has been higher than usual. 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/>

Coming events and workshops

Over the course of the summer, we planned a webinar series, each one concentrating on a specific livestock species. The last **webinar** will cover basics about swine.

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

Fundamentals of Small Acreage Swine

Production. Contact Jennifer Cook to register for the webinars. Jennifer.cook@colostate.edu If you missed any of the livestock webinars, they will be posted on the CSU Small Acreage website at

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

In conjunction with the above webinars, on Saturday, **October 15, 2011** from 8:00 am to 4:15 pm, we will be holding our **Small-Scale Livestock Workshop**. The workshop will take place at the Clover Building on the Boulder County Fairgrounds. This workshop will cover livestock species other than horses (we hope to do a separate one for you later) such as swine, cattle, sheep, goats, chickens, etc. The webinar series mentioned above will lead up to this workshop. We are encouraging workshop attendees to watch the webinars prior to the workshop. The workshop is aimed at those landowners with just a few animals that would like to learn more. The cost for the workshop will be \$25 which includes lunch, snacks and handouts. You can register for the workshop at <http://larimer.org/extension/livestock/>

Small Acreage Owners! Take the opportunity to learn more about pasture management, irrigation, manure management and other topics of interest at the **2011 Small Acreage Extreme Makeover Workshop**. The Workshop will be held Saturday, **September 17** at the Northern Water Facility in Berthoud. Check in begins at 8:15 and sessions run until 4:00pm. Lunch will be provided by Nordy's Barbeque and an optional tour of the Northern Water Conservation Garden is available to interested attendees. Door prizes include \$500 in weed spraying, free pasture seeding and gift certificates from local merchants. The workshop is sponsored by 5 Northern Colorado Conservation Districts, Colorado State Extension and the Natural Resources Conservation Service. The cost for the workshop is \$15.00 per person, which includes lunch and snacks/drinks during the breaks. On line registration and printable flyers for the program are available at www.nococd.org. You can also call Lisa at 970-443-1110 for more information. Please plan to join us for great learning, great food and great prizes in a very pleasant environment.

New Conservation District Websites

The Boulder Valley and Longmont Conservation Districts have launched their new websites at www.longmontcd.org or www.bouldervalleycd.org

The websites provide information about staff, meetings, educational programs, cost share programs and other information. Please check them out the next time you are surfing the web.

Bird's-foot trefoil

By Sharon Bokan, Small Acreage Coordinator

You may have seen a yellow flowered plant resembling alfalfa this year and wondered what it was. It is Bird's-foot trefoil (Birdsfoot trefoil). Bird's-foot trefoil is a relatively long-lived perennial legume. It is often used in seed mixes along roadsides for erosion control. It is used as non-bloating forage and is often mixed with grass in pasture seed mixes. While it can be used as forage, in some areas it can form mats choking out native plants.



Ohio State Weed Lab Archive, The Ohio State University, Bugwood.org

Bird's-foot trefoil can tolerate low to moderate fertile soils including lower pH soils. It is generally used in areas with 20" or more precipitation but can also tolerate drier climates. It can be grown in areas that alfalfa does not do well such as too shallow or poorly drained soils.

Bird's-foot trefoil has a main tap-like root with side roots that are near to the soil surface. The leaves are the typical Fabaceae (pea or bean family) leaf shape with 5 leaflets. The stems are slender and well branched with a moderate number of leaves. While the stems are not as rigid as alfalfa, it grows 2-3' tall and fairly erect structure. The flowers resemble a pea flower but are yellow in color.

Although similar in appearance to alfalfa, management and grazing is different. Unlike alfalfa, bird's-foot trefoil regrows from buds at the leaf axils (where the leaves attach to the

stem) instead of buds at the plant base. Therefore bud preservation is critical to stand longevity. When grazing the plant do not start grazing until the plant is at least 8" tall. Also leave at least 4" stubble remaining and allow 24 to 40 days for regrowth before regrazing. Every 3 years, the stand should be allowed to go to seed to help keep it healthy. When cutting for hay, leave 4 to 6" stubble remaining. It does benefit from fertilization with phosphorous. While yields are only 50-80% of alfalfa, it is a good option for those areas unsuitable for alfalfa.

When planting bird's-foot trefoil, it is important to do proper seedbed preparation. The seed needs to be planted no deeper than ¼" deep and must be inoculated prior to planting. Seeding should be done in early spring or late summer. Late summer planting should be early enough to allow stand establishment prior to hard frost. As stated above, it is normally used as a 50:50 grass/trefoil mix.

Summer pasture considerations

The earlier rains and the extra irrigation water this year were great for pastures. Now that we've dried up, it's important to make sure that you are not over grazing your grass. We will shortly be headed into fall where you need to remove your animals from the pasture so that the grass can build up energy for the winter. Now is a good time to look at your weeds and decide what weed control you need to do this fall. Fall is a good time to do weed control, especially perennial weeds, as the weeds are getting ready for winter like the grasses. If you don't know what weeds you have, please bring in a sample so that the SAM volunteers can identify it for you and help you figure out how to manage it.

Getting the most out of your Hay

By Meg Sitarik, SAM Volunteer

The hay market is based on supply and demand, which means prices rise and fall accordingly. Another factor to consider is the price of fuel this summer. With this knowledge horse owners need to be proactive. Being a horse owner I wanted to know if I could stretch my hay supply and how much work, if any, would this add to my feeding routine? Will this work for the average horse person?

After reading several articles and reviewing my notes from my Equine Nutrition classes at Colorado State University, I decided a user-friendly approach was needed. There are ways to balance each nutrient in the ration and almost every article tells the reader to use a forage probe to get 20 – 25 core samples of hay to send off for nutrient testing. I know this is the “right way” to figure a horse’s diet however, it seems overwhelming, time consuming and complicated. Most of us throw hay to our horses with little thought, if they look chubby we give them less; if they look thin we give them more. As long as we have good quality horse hay life is good. I’ve used this method for 20 years and have 4 very happy healthy horses.

By adding 3.75 lbs of grain per day I am saving 5 lbs. of hay daily. I customized this to each horse and found that I could save 35lbs. of hay daily which is roughly a half bale. That is 3.5 bales weekly and 14 bales per month!

Horses need 1.5% - 3.0% of their body weight per day in total feed with a minimum of 1% in roughage. Roughage is the most important part of a horse’s diet. Roughage supplies energy, protein, some vitamins and minerals but most important is fiber. Fiber is necessary for normal function of the horse’s digestive system.

I used a weight tape (available at CO Animal Health, Longmont) to get an estimate on each horse’s weight. A regular tape measure can be used. Measure the horse’s heart girth with the horse standing square with head up. Encircle the tape around the horse’s chest behind the front legs and pull snug. On the weight tape you

will see a weight estimate. On the regular tape measure note the inches and use the chart to convert to weight estimate. Keep in mind these are estimates.

Tape Measure Conversion

30" = 85#	44.5" = 300#	69" = 900#
32" = 100#	50.5" = 400#	72" = 1000#
34.5" = 125#	55.5" = 500#	74.25" = 1100#
37" = 150#	59.5" = 600#	77.5" = 1200#
39.5" = 200#	63" = 700#	80" = 1300#
42.5" = 250#	66.25" = 800#	

To figure the amount of feed I used the horse’s desirable weight. In order to decide the percent of body weight you also must consider the horse’s level of activity and if they are pregnant, lactating, a weanling or yearling. My

horses are categorized as “mature idle”. I chose 2.0 % for three horses and 3.0% for Grandpa because he is the one animal on my farm that can’t seem to gain weight. I will use Wizbang as an example. His total feed per day will be 2.0% of his body weight. I want a minimum of 1% roughage. I decided 1.5% roughage and 0.5% grain. Which adds up to 2.0%

Example: Wizbang weighs approximately 1110 lbs. Desirable weight is 1000 lbs.

- 1) To find 2% of his body weight multiply 2% by 1000 lbs.

- 2) Change 2% to a “normal” number. Move the decimal point left 2 spaces (0.02)
- 3) Multiply this by the weight. $0.02 \times 1000 = 20$ lbs. of feed **per day.**
- 4) 1.5% of body weight in roughage. $0.015 \times 1000 = 15$ lbs of roughage.
- 5) 0.5% in grain. $0.005 \times 1000 = 5$ lbs. of grain.

Grain and hay do not have equal nutritional values. 1lb. of hay equals 0.75lbs of grain¹.

- 6) Multiply the 5 lbs of hay and 0.75 lbs of grain. $5 \times 0.75 = 3.75$ lbs. of grain.

By adding 3.75 lbs of grain per day I am saving 5 lbs. of hay daily. I customized this to each horse and found that I could save 35lbs. of hay daily which is roughly a half bale. That is 3.5 bales weekly and 14 bales per month!

This sounds great however implementing this program required some planning and changes. I now need to feed two of the horses separately. I had to clean out the “storage stall” and return it to horse stall status. Two of the horses can be fed together since they will be getting the same ration and neither is dominant. I set up a weigh station in the feed/tack room and bought a hanging 50lb. scale (\$34.99) at Murdoch’s and found an old 8 quart bucket to hold the grain. Being fairly lazy I opted to buy a second scale for the hay stall so I wouldn’t have to walk



back and forth to weigh things also a hay mess in my tack/feed room was not appealing. The second scale can weigh up to 100lbs (\$49.95). The next problem was how to weigh the hay. After some trial and error I finally found a way that works and is easy to put together. I bought a plastic laundry basket. After drilling a hole in each corner I placed an eye bolt (with washers and nuts on both sides) on each corner of the laundry basket then used light chain and snaps to connect everything. The cost of everything I needed for this project was \$113.56, without the second scale total costs were \$63.57. Cost includes the chain used to hang each scale from the rafters.

Be sure to change feed slowly to prevent colic and other problems that can arise from too rapid a change. After feeding this program for a month I had to reevaluate things. I changed Wizbang’s feed from 2.0% to 1.5% of body weight since he looked less “fleshy” and chunkier. It is also important to look at your horse’s body condition and reassess your program as needed. Once I marked my grain scoops on the inside with a permanent marker with each horse’s amount I didn’t have to

weigh it daily. I could also judge the hay weight by feel. I still needed to weigh grain and hay twice a week to stay accurate with the portions and prevent creeping up on the rations.

To prevent horses from wasting hay use a feeder and make sure you feed quality hay. Hay should be dust and mold free without excess weeds or twigs and have good color and a fresh smell.

One last important issue is the hay vendor. My advice is simple, find one or two and stick with them. I have been

with the same folks for 8 years because I am a regular client they have always taken care of me during hay shortages. Friends who do not have an established relationship with a vendor find that in a shortage they have a hard time finding hay. My vendor along with my Vet and Farrier are on my VIP list. They all get homemade cookies at Christmas along with a card and note of appreciation.

In summary, this program has helped stretch my hay supply. A benefit I didn't count on was that I now pay more attention to what I feed I'm not as wasteful and it gives the horses a more consistent diet. In answer to question is, yes it is possible for the average owner to stretch the hay supply and yes, it did add a little more time to my feeding routine, about 7 minutes. For me it is worth the extra time and work.

¹ Visit Colorado State University Cooperative Extension Factsheet 1.625, ["Stretching Your Horse's Hay Supply During Drought"](#) for more details.

Grasshoppers

By Sharon Bokan, Small Acreage Coordinator

If you've been walking around in your pasture, you've probably noticed that we have quite a few grasshoppers this year. While we've not suffered significant damage from them, it's always good to know your options. Consider this; a grasshopper will eat up to 50% of its body weight per day while a cow only eats 1.5 to 2.5% of their body weight per day. Although this doesn't seem like much this translates to pound for pound a grasshopper eats 12 – 20 times the amount cow eats or 30 pounds of grasshoppers will consume as much as a 600 pound steer. Being the selective consumers that they are, grasshoppers will eat the prime forage and leave the less desirable forage for your animals.

With most grasshoppers, they produce only one hatching per year (some migrating species do produce 2 sets of young per year). While it seems like they keep producing, it is actually the various species hatching at different times that makes it appear that way. Most grasshoppers overwinter in the egg stage in egg sacks in the ground. Some species do overwinter as eggs in plant stalks while other species overwinter in the nymph stage. Grasshoppers start hatching in May and continue until July. When they hatch they are called nymphs. While in the nymph stage, they go through 5 to 6 growth stages known as instars. At each instar, they molt their exoskeleton and get larger. They become adults in 30 to 50 days after hatching. Grasshoppers have the appearance but not the size of an adult in each of these instars.



Whitney Cranshaw, Colorado State University, Bugwood.org

Grasshopper species tend to have a food of choice, grasses, or forbs or mixed (both grasses and forbs). If their food of choice is not available, they will migrate in search of their preferred food. "Weedy" areas along roads, fence lines, ditch banks and untilled areas are the best places for them to lay eggs. These are also the areas to target when controlling grasshoppers. The young nymphs will remain in these areas for a while after hatching. Nymph stages are the best time for control measures to be the most effective. Grasshopper populations tend to fluctuate drastically apparently in relation to weather conditions. They favor years that we are hotter and drier than those cooler and moister. The newly emerged nymphs are

more vulnerable to heavy rainfall more than cold temperatures in the winter affect the eggs. What threshold must be reached to trigger control measures? Grasshoppers do not do significant damage to pastures or crops until they reach a level of more than 12 per square yard. So how do you figure this? Get in your mind a visual idea of how large a square yard or square foot is. As you are walking through the pasture look ahead, imagining the area and count how many grasshoppers jump out of that area as you approach. If you count more than 12 per square yard, then you might want to consider some kind of control. Ideally, you should also identify the species to help determine your control method. The University of Wyoming has a great website, listed below, for identifying grasshoppers.

Grasshopper control basically involves three methods – poison baits, spraying, and biological control. The poison baits normally consist of insecticide treated oat bran. This method can be effective depending on the grasshopper species as some species will not eat the bait. This method is relatively safe for non-target species. Spraying is normally done with an insecticide such as malathion or sevin. Research at the University of Wyoming has shown that Reduced Agent and Area Treatments (RAATS) is as effective as treating whole acreages. Reduced Agent and Area Treatments consists of treating in strips and leaving other strips untreated. Since the grasshoppers forage between treated and untreated areas you only lose 5-15% control by using RAATS. There is no evidence that not getting 100% control results in another outbreak. One hundred percent control is not ideal as there are birds and other mammals that depend on grasshoppers as a food source. The benefit is that you are using 50 – 60% less insecticide. Spraying has the most potential for non-target species. The only biological control is a protozoa *Nosema locustae*. The *Nosema* comes in a powder form that is mixed with bran and spread in the

affected area. The protozoa do not affect other organisms.

So the next time you go walking in your pasture take notice of the grasshoppers jumping around.

<http://www.okrangelandswest.okstate.edu/files/wildlife%20pdfs/EPP-7196.pdf>

http://www.uwyo.edu/grasshoppersupport/Html_pages/ghcobio.htm

http://www.uwyo.edu/grasshoppersupport/Html_pages/aerraats.htm

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

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.