



Boulder County Small Acreage Management Newsletter

Winter 2013

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

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From the SAM Coordinator

This time of year is great for planning activities for next year whether it is for weed control or grazing management. If you are considering reseeding now is the time of year to be doing it or be planning to seed at this time next year.

As you will notice in the weather outlook, we are lacking in snowpack and precipitation in general. Our soil moisture levels are also depleted due to the lack of precipitation last year. So we don't only have to be concerned about having enough irrigation water this year but also bringing soil moisture levels back up to normal. For those of you without any water rights it could be a very hard year for your pastures. Start thinking and planning now on how you will feed your animals if they drought continues. If it does continue, you will need to keep your animals off the pasture in order to preserve the vegetation.

Thank you,
Sharon Bokan
Small Acreage Coordinator

SAM Newsletters Online

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_acrage@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 212 subscribers to the listserv

Weather Outlook

The NOAA forecasts for the next 30 and 90 days are showing that the most of the state will be drier and warmer than normal. The northern area along the Wyoming border is the only area that is predicted to maybe be normal in both temperature and precipitation. The statewide snow pack improved significantly in December going from 36% as of December 1, 2012 to 70% as of January 1, 2013. However, reservoir storage is still down due to dry conditions last year. Storage is currently at 68% of average.

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

<http://www.co.nrcs.usda.gov/snow/fcst/state/current/monthly/data/reportselection.html>

Coming events and workshops

Upcoming events that may be of interest are a Micro-irrigation Workshop, Colorado Farm Show and the Colorado Agriculture Big and Small Conference.

The Longmont and Boulder Valley Conservation Districts are putting on a Micro-Irrigation Workshop on Thursday February 7, 2013 from 1 to 4 pm in Barn A on the Boulder County Fairgrounds.

<http://www.longmontcd.org/Workshops> The workshop is dedicated to the design, selection, and troubleshooting of micro or “drip” irrigation systems. The workshop is open to all, those in commercial vegetable production or organic production will especially find it informative. There will be representatives from the industry as well as local farmers who are using the systems available for questions. The cost for the workshop is \$5 with RSVP required by January 31, 2013. RSVP to nmcintyre@bouldercounty.org or joni.burr@co.nacdnet.net

The Colorado Farm Show comes this week January 29 – 31, 2013, at Island Grove Park in Greeley. The show features vendors from all aspects of the farming industry as well as speakers on a number of related topics.

Again this is a great opportunity to connect with vendors and is a great educational event for children and grandchildren. More information on the Farm Show can be found at <http://www.coloradofarmshow.com>

The Colorado Agriculture Big and Small Conference will be held February 13 and 14, 2013 at the Adams County Fairgrounds in Brighton. The conference will have sessions for commercial producers, livestock producers and even urban farmers. Additional information and registration can be found at

<http://www.coloradoagriculturebigandsmall.com/>

We are also setting some dates for other workshops for this year. On June 10 and September 9, 2013, there will be Weed identification and Management workshops. The workshops will be the same so you only need to attend one of the two. We encourage participants to bring in their “weeds” or plants that are of concern to them and we’ll help determine a course of action. More information, a brochure and registration information will be available soon.

I hope that you will take advantage of these great events.

2013 Small Acreage Management Volunteer Program

We are taking applications for the 2013 Small Acreage Management (SAM) Volunteer program. Volunteers receive 24 hours of training in plant identification, weed and grazing management, pasture establishment and general program information. Training cost is \$100 which includes lunches and a copy of “Weeds of the West” book (price is \$65 if you already have a copy of the book). In return, first year volunteers are required to provide 24 hours of volunteer time. This time can be by answering small acreage questions, identifying “weeds” that are brought into the office and providing control measures, writing articles for the quarterly newsletter, helping with the crop

show at the county fair and other activities. Application deadline is February 10, 2012 with training to be held March 4, 11, 18, 25, 2013 from 8:30 am to 3:30 pm. More information can be found at

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

Please feel free to call me with questions.



Seedling Tree Sale

Nancy McIntyre

The Longmont and Boulder Valley Conservation Districts sponsor a seedling tree sale each year to provide seedlings to landowners with at least 1 acre. These seedlings are to be used to create windbreaks, wildlife habitat, noise barriers or begin reforestation. The Colorado State Forest Service Nursery on the Colorado State University campus grows the seedlings from seed that is gathered around the state. There are 30 different varieties of shrubs and trees sold as bare root seedlings such as lilac, plum, ash, cottonwood and poplar. We have a new hardy *Prunus armeniaca* apricot bare root variety this year. It is a beautiful medium tall tree which is very suitable for windbreak rows as well as fruit production. The bare root seedlings come in lots of 25 of the same species for \$26. The conifer species include Austrian Pine, Colorado Blue Spruce, Ponderosa Pine and Rocky Mountain Juniper. The conifers come in several sizes and quantities. If you need a few replacement trees for your windbreak, there are also two year old individual seedlings available for \$8.50 each. You can find the order form and more information about each species on the website: www.longmontcd.org or www.bouldervalleycd.org.

If you have wanted to plant seedlings but thought it was too cost prohibitive, this might be the program for you. "There are two great times to plant trees: the first was 20 years ago – the other is now!"

The First 72 Hours Are Critical For Your Newborn Calf

Michael Fisher, GPA Area Livestock Extension Agent

Many of you will be coming up on calving season just around the corner. That makes this a good time to be preparing your equipment and planning your strategy about the 2013 calving season. It is also a good time to reflect on what the calving process entails. Often we take calving for granite and we rely heavily upon the mothering ability of our cows. Still, we need to face the reality that not every cow in Eastern Colorado is a candidate for "Mother of the Year". Therefore, it is a good exercise for the producer to reflect on what happens when a new calf arrives and be prepared in case some assistance is needed. Dr. John Hall wrote a timeline in 2001 that outlines this. Below I have used Dr. Hall's timeline as a guide to create a modified version. Remember, the first 72 hours is critical for your newborn calf.

Labor through Calving (-4 to 0 Hours)

Labor has the potential to be a very exhausting and strenuous process for the cow. This can be especially true for first calf heifers. Even when there is not a dystocia problem (calving difficulty due to calf presentation or size) it is possible that a cow or heifer may become too exhausted and give up on the calving process. Additionally, a dystocia issue can restrict or even eliminate a cow or heifer's ability to deliver a calf. Research surveys conducted out of Montana suggest that the vast majority of calf stillbirths and nearly 50% of calf mortalities that are born alive and

then die in the first 24 hours can be contributed to dystocia issues. A producer needs to check his/her herd three or four times a day to monitor for such concerns during the calving season.

If you feel that a cow or heifer is having difficulty you should intervene early. A calf pulled a little early is not a problem, if the cow has fully dilated. Research that has compared early calving assistance compared to extended calving difficulty has shown that those calves that were helped early tend to be healthier. Additionally, the cows and heifers receiving the early assistance in these studies were able to breed back at a sooner date.

Birth to Standing (0 to 4 Hours)

We expect that calves will be up and will have nursed in the first two hours after birth. Severe weather, injury, illness, or exhaustion can interfere with this. The colostrum milk, which provides the calf with an initial dose of antibodies, is vital in the first four hours after birth. The producer should check to see if newborn calves have nursed in those first four hours. We often expect that calves that had a difficult birth, were born in bad weather, or are sick will take longer to stand and subsequently are less likely to get maximum antibody exposure. You should consider assisting these calves with getting their colostrum.

Occasionally, we may have to tube feed a weak calf. In these cases, there are multiple places where we can get colostrum to give to the calf. When deciding where to access colostrum consider that research indicates that there is a selection priority based on quality of the colostrum available.

#1 The calf's mother.

#2 Stored colostrum from another beef cow.

#3 Stored colostrum from a dairy cow. (Beef cattle colostrum usually has a greater antibody quantity than dairy cattle colostrum.)

#4 Dried colostrum.

In Eastern Colorado, it is often not very feasible to shelter cattle during the calving process. Yet,

sheltering can improve the potential for a live calf during periods of extreme cold and times with wet precipitation. The calf is very susceptible to hypothermia, particularly in the first four hours. A calf that is shivering and has not nursed may be a candidate for being moved to shelter or even a warming device. This is especially true if the calf is lethargic or has difficulty raising its head. A good test to help you determine if a newborn calf needs shelter is to place your finger in its mouth. The inside of the mouth should be warm. A cold mouth can be an indicator of hypothermia. Also, a calf that is OK should begin a sucking reflex when you put your finger in its mouth. If there is no sucking reflex and the mouth feels cool, consider this calf to be in critical condition and get them warmed up soon.

Standing to Processing (4 to 12 Hours)

I mentioned earlier that it is vital for the calf to get antibodies from the colostrum in the first four hours. These are the ones that will do the most good for the calf. Still, the calf can utilize antibodies consumed within colostrum during the 4 to 12 hour period also. The calf's digestive tract begins to change as soon as it is born. At birth it has the greatest ability to absorb antibodies and will gradually lose this ability over the first 24 hours of life. By the time the calf is 12 hours old, it has lost 50% of its ability to absorb antibodies from colostrum.

Many producers will utilize this period to process their calves. It can be easier to handle the new calf than what it may be to run down one that is a couple of weeks old. However, remember that a good mother cow will be very protective of her baby at this time and you need to be wary and alert for your safety.

Possible processing strategies:

-Tag the calf

-Record tag #, weight, sex, identifying features, etc.

-Dip the naval with iodine to prevent infections

-Castrate bull calves that you want to be steers

-Some purebred operations may use this as an opportune time to tattoo calves
-Some ranches may apply an implant to steers at this time

This is also a good time to monitor the cow to see if she has cleaned. This means to determine whether or not the afterbirth has been expelled from the cow.

The First Day (12 to 24 Hours)

If you did not process the calf earlier, this can also be a good time to do so.

Evaluate whether or not the calf is nursing. How much fullness or gauntness does its belly display? Does the calf have a bright and satisfied appearance or does it act lethargic or standing with a humped back? Does the calf act or look cold? Occasionally, even a healthy newborn calf can suffer from a lack of milk. A few cows, particularly first calf heifers, may not have strong mothering skills and refuse to allow the calf to suckle. In some cases the cow's udder may be plugged or she may have a health issue that restricts either milk production or milk "let down".

A cow that is demonstrating a mothering problem may need to be penned up in isolation with her calf for the first day or two.

The Second Day (24 to 48 Hours)

On the second day we expect that calves will be readily capable of following along with the mother cow. However, it is important to remember that the new calf will spend much of its time sleeping for the first week. So don't expect that it will be following the cow all of the time. Additionally, cows like to hide their calves to protect them from predators for the first couple of days.

When you do see the second day calf, it should look perky and well fed. Monitor it for any displays of starvation, hypothermia, or weather stress.

The Third Day (48 to 72 Hours)

By the third day we expect calves to be displaying some "spunky" behavior. They may be starting to run around, jump, and play some. Cows should have fully cleaned by now. If a cow has a retained placenta at this point, you should consider visiting with your veterinarian. He/she may want to prescribe a long acting antibiotic. In some cases they may need to physically remove the placenta.

Pairs that are doing well should be moved out of the calving area onto a large, well-drained area. This should help reduce incidents of scours and other diseases among the young calves. If there are weak calves at this point they and their mother should be paddocked in a well-drained area where extra attention can be provided. The same strategy goes for pairs that suffer from poor mothering abilities. Remember that this needs to be a clean and well-drained area. Dirty, wet, and muddy paddocks or stalls can greatly increase the chance of death among weak or sick calves.

Drought and winter pasture management

During drought, plants grow fewer roots and vegetation (stems and leaves). As vegetation that is used in production of carbohydrates (energy, sugars) is removed, the plant reduces production and storage of carbohydrates for basic life processes. Foot/hof traffic also damages both vegetation and roots further cutting energy production. Without roots or reduced roots, plants are unable to take up the needed water and nutrients while reduced or stunted vegetation reduces photosynthesis and carbohydrate production needed for basic life functions. During a drought this is especially critical as moisture is lacking aggravating the problem and stressing the plant even more.

If at all possible it is best to keep animals off pastures or severely limit grazing during drought even in winter. The grasses went into dormancy

under stress with fewer roots so you want to preserve the roots and buds. You can still graze the dry material but be careful to not let livestock graze the grass clear down to the crown or be on the pasture when it is icy or muddy. Preserving some vegetation will help trap any moisture we do get and allow it to soak into the soil. You also don't want to damage the crowns as that is where the buds for the next years' growth are located. If the plant has to grow new buds, that will take more of the precious stored energy.

Using rotational grazing practices and extending rest periods helps maintain pastures in the best condition possible. During drought animal access to pastures should be no more than ½ to 2 hours per day. You may want to restrict access completely during drought or limit access to 1 or 2 areas sacrificing them to maintain the remaining pastures. These areas can be renovated or reseeded after the drought as opposed to renovating or reseeding all pasture areas. As the drought continues pasture monitoring may indicate shortening this time further. Units in rest should not be used for a minimum of 21 to 30 days. Pastures should be grazed no shorter than 3-4" tall and not be regrazed until they are 6-8" tall.

With reduced forage, animals are tempted to graze poisonous plants such as locoweeds and larkspurs which may be green when pasture grasses are brown. Some plants will also accumulate nitrates during drought. (see Fall 2012 newsletter for more information) Pastures should be surveyed for such plants and those areas fenced off to prevent feeding and the areas treated to get rid of the unwanted plants.

Animal considerations

Horses

Horses need a minimum of 1% of their body weight in roughage per day preferably 1.5 to 2%. Your horses may normally receive their roughage by grazing however during a drought grazing is reduced. Any change in feed should be made over a 1-2 week period. CSU Fact Sheet 1.625 provides a list of alternate feeds and roughage sources.

<http://www.ext.colostate.edu/pubs/livestk/01625.pdf>

Cattle

Drought conditions also affect cattle grazing. Consideration should be given to using a semi confined or a feedlot for cattle during drought. See CSU Fact Sheet 1.626 for information of alternate feeds for cattle.

<http://www.ext.colostate.edu/pubs/livestk/01626.pdf>

Sheep

Drought affects sheep the same as horses and cattle. See article on alternate sheep feeds at

www.ext.colostate.edu/sam_drought/art-sheep.html.

Another factor for cattle and other ruminant livestock during drought is nitrate poisoning which can quickly kill an animal. Drought stressed forage can contain higher level of nitrates in the stalks and leaves. This occurs when the root systems continue to take up the same amount of soil nitrates whether under drought conditions or not. Therefore the nitrates are concentrated in the smaller drought stressed plants. Other non-ruminant animal such as horses and pigs can tolerate higher nitrate levels. Feed and drought abandoned crops should be tested for nitrates prior to being utilized. Water should also be tested for nitrate levels. Water with elevated nitrate levels in combination with higher nitrate feed may combine to produce toxic nitrate levels.

When there is sufficient moisture again, resist the temptation to start grazing again. Allow pastures time to recover and start producing roots and storing energy again. After severe drought you may need to wait a year or more before grazing. Other areas such as those sacrificed areas may need to be reseeded after a drought. Pastures mixtures and reseeded/renovation techniques can be obtained through CSU Extension and Natural Resources Conservation Service.

References and Links

National Oceanic and Atmospheric Administration
www.noaa.gov

National Weather Service www.nws.noaa.gov
NOAA Drought Information and Forecast page

<http://www.drought.noaa.gov>

Western Regional Climate Center

<http://www.wrcc.sage.dri.edu>

Climate Prediction Center

<http://www.cpc.noaa.gov/products/forecasts>

U.S. Department of Agriculture Drought information
page <http://drought.fsa.usda.gov>

Colorado Department of Agriculture

<http://www.ag.state.co.us>

Colorado Climate Center <http://ccc.atmos.colostate.edu>

CSU Cooperative Extension

http://dare.agsci.colostate.edu/index_extension.html

Boulder County Cooperative Extension

www.coopext.colostate.edu/boulder/AG/agr.shtml

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Email Sharon Bokan for more details

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