University *of* California
Agriculture and Natural Resources
Stanislaus & San Joaquin Counties

LIVESTOCK LINES

February 2012 ◊ Volume 18 No. 1

Grass Tetany

Spring is the time to be prepared for grass tetany. Grass tetany is commonly associated with grazing on lush pastures, something that we are all hoping will be happening very soon. The most important condition that causes grass tetany is low blood magnesium concentrations, and there are many different situations that can cause low magnesium in cattle. To start, rapidly growing grasses often are low in magnesium. In addition grasses are high in potassium which interferes with the absorption of magnesium in the gut. Now we have two strikes against us. High crude protein content of grasses is also of concern. Ammonia can interfere with absorption of magnesium in both the plant *and* the animal. Ammonia fertilizer can decrease magnesium in grasses while increasing crude protein. In the digestive system, ammonia can block the absorption of magnesium like potassium does. Lactation not only increases requirement for calcium, but also magnesium. Heavier milking cows are at a higher risk.

It is not uncommon to find dead cows before you realize there is an issue. If there are signs of a struggle such as grass and dirt moved away from their feet and head, this can help lead to a diagnosis of grass tetany, instead of a poisonous plant or other disease, such as Redwater. A necropsy can be performed to positively identify the cause of death. To determine if grass tetany is the cause of death, the eyes are the tissue needed. The fluid within the eye is the only place in the body that does not increase in magnesium concentrations near death. Contact your vet as soon as you find a dead cow to determine the best procedure(s) for conducting a necropsy. If cattle are found alive, they may be weak, disoriented, have convulsions, or attack people or inanimate objects. Keeping these animals calm is important to not cause the convulsions that will lead to death. Intravenous solutions of magnesium and calcium need to be administered to live cattle determined to have grass tetany. Cattle should be moved to an area where alfalfa hay and magnesium and calcium

DID YOU KNOW...

Which mineral supplied by beef is most likely to be missing from American diets? Beef is one of the best food sources of iron, a mineral lacking especially in the diets of many women and children.

By Theresa Becchetti

Theresa

Livestock and Natural Resources Farm Advisor

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.

supplements can be given while monitored for relapse. For downed animals, it has been found that two ounces of magnesium chloride or magnesium sulfate (Epsom salt) in a 200 mL warm water solution can be given as an enema. Blood magnesium levels can increase after 20 minutes. As with any treatment, you should discuss with your vet the different treatment options.

Prevention really is the best course of action for grass tetany. Salt-mineral mixes of molasses supplements are the most common methods. Beet molasses is high in magnesium, and is normally a large percentage of molasses made in the west. You should read the labels closely and if the supplement contains urea, it may not help prevention of grass tetany since urea breaks down easily in the rumen to ammonia. Homemade recipes can work just as well. One-to-one proportion of magnesium oxide to dried molasses, offered free choice; one-to-one-to-one-to-one proportions of magnesium oxide, salt, dicalcium phosphate, corn meal (cottonseed meal or soybean meal can work as well) fed at a rate of four ounces per head, per day, minimum. Corn meal can be increased if cattle are not eating enough. The goal is to supplement one ounce of magnesium oxide and one ounce of dicalcium phosphate per head, per day. So the saying "an ounce of prevention is worth a pound of cure" definitely applies here.

Drought on Rangelands

So we started off with some great germinating rains this fall, and have then proceeded to have a lovely drought on our hands, leaving pretty much everybody hoping for rain, and probably by now, feeding hay and maybe considering reducing numbers with the high cost of hay, currently. Discussions have started about if a disaster should be declared already, but until the end of the forage production year, it is too early to tell if we are in a full drought or not. If we start getting some regular storms, especially through March, we can end up with a "normal" forage production year, just with a very painful winter.

Drought can often have another consequence that you may not think of. With limited forage available, cattle may turn to graze plants normally left alone. Many times these tend to be poisonous plants. Be sure you are familiar with the different "weeds" that are in your pasture, and take precautions to eliminate or reduce any that could be poisonous.

Below is an article one of my colleagues wrote during the last drought that I thought I would share. The website mentioned from NCBA at the bottom has more detail than we can provide here, and some charts to show different examples and differences between the different codes.

Drought Sales of Livestock: Managing the Taxes

Glenn Nader - UC Farm Advisor & Matt Byrne – former Calif. Cattlemen's Assoc., Executive Vice President

Drought conditions and a lack of feed in many parts of the state this year have raised many questions about various management options available to reduce the impact on your operation. Weaning calves early, purchasing feed, leasing additional pasture, or reducing herd numbers are some of the options available to you.

It is important to consider the fact that selling animals can trigger capital gains taxes. There are two provisions in the tax code that address the ability of livestock owners who exercise this drought management decision to avoid additional tax liability.

Code Section 451(e)
Allows ranchers whose principal business is agriculture and who use a cash accounting method to postpone reporting the taxable gain on sales of ***any*** livestock above the yearly average sales for ***one year***. To qualify, the producer's county must have received a federal disaster declaration. Sales related to the drought under this section can qualify even if they occur prior to the declaration.

Code Section 1033(e)
Allows ranchers whose principal business is agriculture and who use any accounting method to postpone, and altogether avoid, paying taxes on the gain from the sale of ***breeding*** animals above the yearly average sales if they are ***replaced within a specified time frame***. The time frame varies depending on whether or not your county was declared a federal drought disaster.

In federally declared drought counties, the replacement period ends at the conclusion of the first taxable year after the ***first drought-free year*** for that county. The "first drought-free year" is determined based upon the U.S. Drought Monitor at http://www.drought.unl.edu/dm/monitor.html. IRS will publish a list each September of the counties for which a drought exists. In counties not declared federal disaster area the replacement period ends ***two years*** after the close of the tax year in which the involuntary sales occurred.

The information in this article is a guide to help you examine the management options available to you. To ensure that you qualify for tax relief under either of these code sections it is advisable to speak with a tax professional.

References:
National Cattlemen's Beef Association, 2007, Q&A: Tax Options for Drought Sales of Livestock, National Cattlemen's Beef Association, Washington, D.C. 20004, (202)347-0228 http://www.beefusa.org/uDocs/qaondroughttaxmay07.pdf

Livestock 101 – Useless Trivia to Stump Your Relatives

Ever wish you had some little random piece of information to stump your friends and relatives? Something that will make everyone scratch their heads and then be in awe of your knowledge? Well, maybe this will help. Some random information about livestock, and a little bit of US history thrown in for good measure…

- The first one we'll do is the one most people ask any non-ag person, – How many stomachs does a cow have? Answer is…. 1, with four compartments. For extra bonus points, the names of each compartment are (in order): The rumen – think of it as a big fermentation vat. The rumen is composed of a bunch of microbes that break down and digest the forages. The reticulum – also called the honeycomb. Any heavy material is collected in the reticulum. It is located against the diaphragm, and if there are any sharp objects such as wires or nails that are eaten by the cow, they end up here and have the potential to puncture the liver, otherwise known as hardware disease. The omasum – also called the book or butchers bible. The third compartment contains many folds in it that help absorb water as well as volatile fatty acids. The abomasum is the final compartment and is functionally similar to a monogastric's stomach. It will secrete acids to digest proteins from the rumen. Cattle, bison, sheep, and goats, are all domestic true ruminants, llamas and alpacas as pseudoruminants (three compartments). Horses and rabbits are technically monogastrics, but have a large cecum that acts similar to a ruminant's rumen. Size of Rumens- Cow - 25 gallons; Sheep - 5 to 10 gallons; Goat - 3 to 6 gallons.

- What is the connection between beef and the name Uncle Sam, symbolizing the United States? During the War of 1812, a Troy, New York meatpacker, Sam Wilson, obtained a contract to supply beef to the Army. Wilson, who was known locally as "Uncle Sam," shipped the meat, salted in barrels. The barrels, being government property, were branded "U.S." and the teamsters and soldiers joked that the barrels were the initials of Uncle Sam himself. Later, anything marked with the same initials (as much Army property was) also became linked with the name Uncle Sam and led to the idea that Uncle Sam symbolized the Federal Government and the association stuck.

- Thanksgiving may be the day to toss around the "old pig skin" – but footballs are actually made from cowhide. It takes about three thousand cowhides to supply the NFL with enough leather for footballs for one season.

- True or False – If a cow has horns – it is a male. False! The absence or presence of horns is determined by genetics, not sex. Horns are a dominate trait, so if one parent is horned, chances are the calf will have horns as well. Hair color is the same, black is dominate over anything else; white face is dominate. So, on a simplistic level, the major difference between Angus cattle and Red Angus cattle is a recessive gene for hair color. Herefords and Polled Herefords – recessive gene for horns.

- Which mineral supplied by beef is most likely to be missing from American diets? Beef is one of the best food sources of iron, a mineral lacking especially in the diets of many women and children.

- Beef is the No. 1 food source for which of the following nutrients? Beef is the No. 1 source of Protein, Vitamin B12 and Zinc. Beef is also the No. 3 food source of iron behind fortified cereal and grains.

- Leather and feed additives are not the only by-products of cattle and beef production. Name a few of the medical by-products? Epinephrine is derived from the adrenal glands and used to treat asthma and allergies; thrombin, obtained from cattle blood is used in helping clot blood; liver extract is used in treating anemia; and insulin can be taken from the pancreas of cattle for treatment of diabetes.

Random Facts:

- Gestation lengths: Horses – 11 mo; Cows – 9 mo; Sheep – 5 mo; Goats – 5 mo; Hogs – 3 mo, 3 weeks, 3 days.
- A cow can detect odors up to 5 miles away.
- Pigs can't sweat. Pigs have no sweat glands.
- Cattle have almost 360-degree panoramic vision.
- Around the world, more people drink goat milk than cow milk.
- Pork is the most widely eaten meat in the world.
- How can you tell a sheep from a goat? A sheep has oil glands on its face and toes.
- Coffee was first discovered when goat herders noticed the goats acting very energetic after nibbling on the coffee beans.
- Goats were the first animal to be domesticated, according to many historians.
- Swine research led to the development of the CAT Scan, a technology for examining internal organs without surgery.
- Before coins were used for money, goats were traded for silver, because they were so valuable.
- Heart valves from hogs are used to replace damaged or diseased human heart valves.

So now you are ready to stump family and friends with what a Butchers Bible is, how coffee was first discovered, and how we came to the term Uncle Sam. Wonder if he looked anything like the Uncle Sam caricature we all know now?

Crystal Meth Epidemic Update

Presented by:

Bob Pennal

You will not want to miss this riveting and educational presentation about the methamphetamine epidemic and the organized crime that supports the distribution and trafficking that have spread throughout the San Joaquin Valley It could be as close as your next door neighbor

This is an ideal presentation for Law Enforcement/Medical personnel and the Agricultural Community.

Learn how :

- **How Crystal Meth effects the Medical/Law Enforcement/Agricultural Communities**
- **Portable Labs that cook on the go**
- **The Crystal Meth is distributed throughout California and the U.S.**
- **The dangers that Crystal Meth addicts pose to your community**
- **Labs are able to be covert and undetected**

The Presenter: Bob Pennal is retired from the Bureau of Narcotics Enforcement Methamphetamine Lab Task Force. Mr. Pennal has built his expertise in the area of meth labs over his **24** year career as a supervisor with the task force. He has been involved in over 700 investigations of meth labs, many that resulted in prosecution. Mr. Pennal has become very familiar with organized crime and gangs that have spread throughout Mexico and the United States and their sophisticated distribution system. He was the featured speaker at the Global Methamphetamine Lab conference in Prague, Czech Republic. He has trained over 30,000 police and public safety officers around the world and is currently the coordinator for the Western States Information Network.

SPACE IS LIMITED MAKE YOUR RESERVATION NOW

WHEN: **Feb. 25, 2012 9:00AM to 12 noon**
WHERE: **Robert Cabral AG Center 2101 E. Earhart Ave (Stockton Airport), Stockton**
Make reservations by calling: Theresa Becchetti 209-525-6800
email: tabecchetti@ucdavis.edu

Sponsored by:

Rank Investigation and Protection, Inc.

Highway 4 Neighborhood Watch

San Joaquin Farm Bureau Federation

Stanislaus County Farm Bureau

Hosted By:

Robert J. Cabral Ag Center

University of California
Agriculture and Natural Resources
Making a Difference for California

60th Annual Oakdale Livestock Forum

March 13, 2012
Oakdale Community Center
110 South Second Street
Oakdale, CA 95361

This meeting is sponsored by the University of California Cooperative Extension, the California Beef Cattle Improvement Association and the Calaveras, Tuolumne and San Joaquin/Stanislaus Cattlemen's Associations.

9:30 am Registration and Morning Hospitality

10:00 Welcome, Opening Remarks

10:05 **Animal Health Updates**
Dr. John Maas, Veterinary Specialist, UC Davis

10:45 **Nitrogen Fertilization to Reduce Invasive Forages**
Josh Davy, Livestock-Natural Resource Advisor, Tehama, Colusa, Glenn Counties

11:15 **What are Herd Bulls Accomplishing in Multiple Sire Breeding Pastures?**
Dr. Allison Van Eenennaam, Animal Genomics and Biotechnology Specialist, UC Davis

12:00 pm **Beef Lunch Co-Sponsored by A.L. Gilbert & Yosemite Farm Credit**
Prepared by the San Joaquin/Stanislaus Cattlewomen's Association

12:45 **Rangeland Water Quality Updates**
Dr. Ken Tate, Rangeland Watershed Specialists, UC Davis

1:30 **Integrated Weed Management**
Theresa Becchetti, Livestock-Natural Resource Advisor, Stanislaus & San Joaquin Counties

2:00 **Afternoon Hospitality Break**

2:45 **Bare Ground as an Indicator of Rangeland Health**
Julie Finzel, Livestock-Natural Resource Advisor, Kern, Tulare, Kings Counties

3:00 **Rewarding Farmers and Ranchers for Stewardship**
Kelli McCune, Project Manager, Sustainable Conservation

3:15 **Cost Share Possibilities for Rangelands and Irrigated Pastures**
Diana Waller, District Conservationist, Natural Resource Conservation Service

3:30 Closing Remarks

Please be sure to visit with our sponsors and thank them for their continued support:

A.L. Gilbert, Bayer Animal Health, and Yosemite Farm Credit.

68TH ANNUAL OAKDALE LIVESTOCK FORUM

REGISTRATION FORM

Tuesday

March 13, 2012

110 South Second Street

Oakdale, CA

Name:_____

Address:_____

_____

_____

Daytime Phone: (___) _____ Number Attending_____

Refreshments and lunch will be provided to all participants.

Please return this form with payment of $10.00 for each participant. Enclose a check or money order payable to U.C. Regents. Payments & Registration are due by March 6th, 2012 (or pay $15.00 at the door).

Mail registration to:

Theresa Becchetti, Livestock Advisor

U.C. Cooperative Extension

3800 Cornucopia Way, Suite A

Modesto, CA 95358

(209) 525-6800

A Calaveras, San Joaquin, Stanislaus & Tuolumne Counties educational program

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Calendar of Events:

February 25th – Crystal Meth Update, Stockton Ag Center 9 am

March 13th – 60th Annual Oakdale Livestock Forum, Bianchi Community Center, Oakdale, 9:30 am

March 26th – Beef Quality Assurance Program, Farm Bureau Office, 638 Enos Way, Livermore, 7 pm call 925-455-1776 for more information.

April 24th – 29th Annual Westside Ranchers' Meeting, Frank Raines Park, 9:30 am

Current Resident or:

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