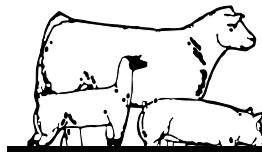


# LIVESTOCK



October 2009

## NEWSLETTER

OREGON STATE UNIVERSITY EXTENSION SERVICE MALHEUR COUNTY

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### CALENDAR OF EVENTS

**October:**

**November:**

TBA – Malheur County Cattlemen's Annual Fall Meeting



### A NOTE FROM THE AGENT-

Fall is literally in the air. I am referring to all the chaff, dust and smoke accompanied by the sound of bawling calves! What a great time of year!! Additionally, this year's onion harvest is apparent on every sharp corner and turn. If you are so inclined to retrieve the fallen bounty, be cautious to not get run over, and I suggest you try the recipe enclosed. Be sure to drink a glass of milk with your caramelized onion pork loin!

I was recently in Portland for the National Association of County Agricultural Agents (NACAA) Annual Meeting and Professional Improvement Conference. Oregon was the host for this year's meeting, whose location rotates throughout the United States. Numerous Oregon ag agents served as various committee chairs for the convention that hosted over 1,200 guests. The convention itself began on a Sunday and ran through Thursday, but the work really began years ago. I am proud to say that our small delegation of Oregon Ag Agents banded together and pulled off the enormous task of hosting this outstanding meeting. It was a team effort and many neighboring states contributed their share as well.

Everyone pulling together to complete the tasks has made me think about how this is paralleled in producers lives. Who is on your team? Who can you call upon to assist you in achieving the goals and dreams you have for your livestock operation? Does your team include neighbors or family members? A veterinarian? The banker? County Extension agent? How about sales rep's, the CAFO inspector and the local mechanic? What organizations are you affiliated with? Are you a member of the local Farm Bureau, Oregon Dairy Farmers, Oregon Cattlemen's Association or R-calf? In this day and age, if you don't have allies, or others who are willing to go to bat for you, you're sunk! Production agriculture is continuously changing and advancing and it is no longer the industry that it was even twenty years ago. Think about it. Do you have your support team in place? If not, is there something I can do to get you to where you want or need to be?

*Ace-Main*

<http://extension.oregonstate.edu/malheur>

## County Moisture Outlook

### Reservoir Report 9-29-09

Thief Valley 21% full  
Philips 53% full  
Unity 15% full  
Beulah– Missing  
Bully Creek 4% full  
Warm Springs 0% full  
Owyhee 18% full



According to Bureau of Rec. web-site

## Back To Basics: Hardware Disease

By: Ron Torell and Dr. David Thain

I distinctly remember as a kid my dad announcing that the milk cow was showing signs of haywire disease. My brothers and I laughed; we thought the cow was actually going crazy! Actually, my dad was referring to hardware disease. His generation called it haywire disease primarily due to the extensive use of hay wire during this time period. The associated high incidence of hardware disease was due to cattle ingesting small pieces of wire which would lodge in the reticulum and cause problems, including possible death. My dad always lectured us to pick up wire after feeding as a preventative measure. Baling twine has since re-

placed baling wire resulting in a reduced incidence of hardware disease over the past thirty plus years. In this issue of Back to Basics, let's discuss why the incidence of hardware disease appears to be on the rise, as well as the symptoms and preventative measures that can be taken.

Hardware disease, also known as traumatic reticuloperitonitis, is technically not a disease. It is a mechanical injury to the reticulum. The incidence of this condition seems to be on the rise primarily due to the increasing use of deteriorating and discarded steel-belted tires for water and feed troughs. Many ranchers located in mining areas such as Elko and Winnemucca, Nevada, have access to discarded steel-belted mine equipment tires. These worn, steel-belted tires are used for many purposes such as windbreaks, water and mineral troughs, and feed bunks. Thin wires exposed from the worn steel belt break off and fall into the tire feeder or water tank. Cattle ingest these fragments of metal which are mixed in with the feed. The ingested metal objects lie in a chamber of the stomach known as the reticulum. The reticulum "catches" all heavy objects that are ingested. Feed and lighter materials pass back into the rumen leaving the heavier metal objects behind. When muscles contract, the "hardware" may be forced through the wall of the reticulum, diaphragm and heart sac.

Signs of hardware disease in the cow include a poor appetite, depression and a reluctance to move. Cattle may have indigestion and show signs of pain when defecating. The cow may stand with an arched back. Often you can hear a "grunt" when the cow is forced to walk. If the object penetrates close to the heart and migrates forward, an often fatal infection will result.

Diagnosis can be difficult, primarily because many other diseases mimic the signs mentioned above. A "withers" test can be done by squeezing the cow's backbone just above the withers. If the animal forcibly grunts, the pain can be localized to the front half of the cow. This indicates that hardware disease may be the problem. If you suspect hardware disease, a cheap treatment is to place a \$5.00, commercially-available magnet in the reticulum. This is done using a standard balling gun and administering it orally. If the magnet finds its way to the reticulum in the absence of rumen contractions brought on by the disease, you stand a chance of the foreign metal adhering to the magnet and retracting. Secondly, a broad-spectrum antibiotic should be administered to control infection. Confinement of the animal will buy time so that the stomach can wall off the hole created in the stomach. Cattle with extensive infection in the abdomen or in the heart have a very poor prognosis. These cattle will die of starvation despite any attempt to

encourage feed intake.

“An ounce of prevention is worth a pound of cure” certainly applies in this situation. Managing animal feed and feeding areas to avoid heavy sharp objects finding their way into feed bunks is paramount. Magnets can be installed in feed mills and harvesting equipment to catch as many foreign objects as possible prior to entering the feed bunk. Barbed wire fencing, staples and roofing nails are often incriminated in hardware disease cases, and now metal fragments from steel-belted tires are added to the list. Occasionally, heavy plastic items will cause hardware disease. Magnets will not stabilize the migration of the plastic objects. Magnets are primarily recommended as a preventative to be placed in healthy cattle prior to ingesting foreign material rather than as a treatment. Ingested metal adheres to the magnet and remains in the reticulum for the life of the cow. The foreign metal objects cause no problems due to the magnet’s presence and the objects adhering to that magnetic force.

Inspecting magnets post-harvest reveals the extent that cattle actually consume metal objects over their lifetime. Every harvest facility of market dairy cows has several of these magnets on display as trophies they have collected over the years. These magnets are loaded with foreign metal objects.

Cattle take large mouthfuls of food and often swallow without any chewing. This indiscriminate eating pattern predisposes cattle to hardware disease, especially when bunk fed a total mixed ration of chopped hay and grain. This eating pattern explains how these foreign materials easily enter the digestive system. The take-home message: if you use steel-belted tires on your ranch as hay feeders and/or water or mineral troughs, inspect those tires for small metal fragments that may break off and cause hardware disease. A little prevention may keep your cows from going HAYWIRE!



## Caramelized-Onion Pork

This is a local recipe that was once submitted and won a recipe contest for Taste of Home.

**TIME:** Prep: 30 min. Bake: 40 min. + standing

**SERVINGS:** 4

### **Ingredients:**

- 1 large sweet onion, thinly sliced
- 1 teaspoon sugar
- 2 teaspoons olive oil
- 1 pork tenderloin (1 pound)
- 1/4 teaspoon salt
- 1/8 teaspoon pepper

### **Directions:**

In a large skillet, cook onion and sugar in oil over medium-low heat until onion is tender and golden brown, about 30 minutes, stirring occasionally.

Place the pork in a 13-in. x 9-in. baking dish coated with cooking spray. Sprinkle with salt and pepper. Top with onion mixture. Bake, uncovered, at 350° for 40-45 minutes or until a meat thermometer reads 160°. Let stand for 5 minutes before slicing.



# What You Need to Know About Sudangrass Hybrids

*Adapted from article by Dan Undersander, Extension Forage Agronomist, University of Wisconsin*

## What is sudangrass?

Sudangrass is a warm weather crop and will perform best in years when the growing season is characterized by higher than average temperatures. Cool conditions will severely limit productivity. It grows from 4 to 7 feet tall, has leaves about ½ inch wide and stems about ¼ inch in diameter. It can be harvested as pasture, green chop, hay, or silage. Yields have ranged from 3 to 5 tons/acre dry matter. It can be ready for harvest as early as 45 days after planting. The smaller stems give it better drying characteristics than other sorghums for hay making. Sudangrass hybrids are available that are slightly larger and higher yielding.

## When and how should sudangrass be seeded?

Sudangrass should be seeded after the soil temperature has reached 60 to 65 °F. Sudangrass is usually seeded with a grain drill at 20 to 30 lbs/A using 6 to 7-inch row spacing.

## What is the concern about prussic acid poisoning?

Sudangrass plants contain a compound called dhurrin, which can break down to release prussic acid (hydrogen cyanide, HCN). Sudangrass has low levels of this compound and rarely kills animals. However, individual animals vary in susceptibility to prussic acid poisoning. Cattle are more susceptible than sheep.

Dhurrin content is highest in young plants. Therefore, the recommendation is not to graze or cut for green chop until the plant is 18 to 20 inches tall. This also applies to young regrowth in pastures. After a drought, new shoots may appear and the grazing cattle will switch from the taller forage to the new tender shoots. In addition, do not graze or green chop for 10 days after a killing frost.

High levels of nitrogen fertilizer or manure will increase the likelihood of prussic acid poisoning as well as nitrate poisoning. Very dark green plant growth often contains higher levels of prussic acid.

Most prussic acid is lost during the curing process. Therefore, hay and silage are seldom toxic even if the original forage was. Do not leave green chop in a wagon overnight and then feed. The heat that occurs will release prussic acid and increase likelihood of toxicity in the feed.

## When should sudangrass be harvested?

**Hay** - Highest yields are obtained when sudangrass is harvested at the soft-dough stage (if a heading type). However, curing is difficult and quality is low when harvested this late. The general recommendation is to harvest either type for hay whenever forage is about 30 inches high. Crop should be cut six inches above the ground to encourage regrowth and two cuttings may be expected depending on yield

**Green chop** - Sudangrass can be used to provide green chopped forage over summer. Begin chopping after the plant is 18 inches tall or cut at least 10 days after a killing frost to avoid prussic acid concerns. First cutting should be taken prior to heading.

**Pasture** - Sudangrass or sudangrass hybrids can be grazed any time after the plant has reached a height of 18 inches, which is usually 5 to 6 weeks after planting. For best results, it should be grazed rotationally with a sufficiently heavy stocking rate to remove forage down to a 6 to 8 inch height in a few days. The pasture will grow rapidly when the cattle are removed for more total tonnage. Additionally, if the grazing period is short, cattle will be less likely to be grazing regrowth that is high in prussic acid.

## What is the feeding value of sudangrass?

Although this forage is generally similar to corn silage in feed value for beef cattle and sheep, there are some differences. Sudangrass grazed in its early vegetative stage contains as much available energy as corn silage and considerably more protein. However, mature sudangrasses and sudangrass silages are 15-20% lower in available energy than corn silage. This is because of the lower grain-to-forage ratios of the sorghums, and also because the seed coat is harder than corn and far more grain passes undigested through the animal. Crude protein levels are similar to corn silage, but they are rather variable and depend in part on the amount of nitrogen fertilization.

Calcium and phosphorus levels of sudangrasses are somewhat higher than corn silage, and the calcium-phosphorus ratio is better. Sudangrass contains relatively high levels of potassium. Sheep producers should be aware that this forage evidently accumulates copper more than corn and often show copper levels of more than 30 ppm. This is usually not a problem for cattle, but sheep grazing or being fed sudangrass forage should have access to a mineral mixture containing molybdenum and no additional copper.



The MCCA Annual Fall Meeting will be held in November. Watch for details in the next newsletter.

### Oregon Cattlemen's Association Membership Drive

Oregon Cattlemen's Association (OCA) members who recruit at least one member will receive an exclusive OCA hat. To receive credit, the recruiters name must be on the membership form.



The county that recruits the most associate and producer members between July 1<sup>st</sup> and November 30<sup>th</sup> will win a new saddle donated by Ag Insurance. The winner will be announced during the Annual Convention. Members joining now will be valid through December 2010.

As of September 30th, Malheur County was leading in the Oregon Cattlemen's Association Membership Drive!



Donations are still being accepted for the Malheur County Beef Heifer Replacement Program. As of September 1st, there were ten student applicants. Contact Anna-Marie Chamberlain for more information.

# Dairy Report

## Overall Effort Keeps Enviro Mastitis in Check

By: Dr. Mike Gamroth, Oregon State University

**Genetics of the cow** are important to her successful production, but the environment we provide affects her production 3 to 4 times as much. No where is this fact more important than in controlling environmental mastitis.

The environmental pathogens associated with mastitis are *Streptococci*, including *Streptococcus uberis*, and coliforms such as *E. coli* and *Klebsiella spp.* They continue to be the major cause of mastitis on dairy farms throughout the world. 40% to 50% of all mastitis cases are caused by these bugs common in the environment around the cow.

Dry cows and early fresh cows are most susceptible, and monitoring the bulk tank bacteria and watching the somatic cell count don't always tell you when things are right in the cows' environment. About 40% of the infections will clear spontaneously so you may have a problem and not know it.

**Money from your pocket.** Estimates when milk was \$12 reported about \$107 lost with every case of mastitis on the farm. On top of that is the loss of milk quality bonuses from having too many sub-clinical cows in the herd that raise your cell count.

Bacteria need three things to grow: a warm environment (temperature), moisture and nourishment from bedding and other organic matter. Environmental pathogens flourish in warm wet weather with nourishment. The most common time of environmental mastitis outbreaks is during the warm rainy season and when the cow is exposed to dirt-manure and moisture.

**Identifying the culprits.** Fresh cow milk cultures can help identify culprit bacteria. This is often where you will get reports of environmental bacteria in quarter milk samples. Counts will often be over 100 colony forming units per milliliter.

Prevention of infections is the key to success, as with all mastitis. Dry cow therapy of each quarter at dry off is important. Environmental bacteria are the reason selective dry therapy is not recommended; new infections can happen the first two weeks of the dry period.

**Lactating therapy questionable.** Some research has been done to look at re-infusing part way through the dry period and it appears that opening the sealed teat end takes away the benefit of additional antibiotic in the dry gland. Milk residues can be a problem, too. Lactating therapy is only partially effective on environmental *Strep.* bacteria and is of little value on coliform infections.

Dry clean bedding is also an important factor in controlling infections. Sand or other inorganic beddings are helpful. However, all beddings, including sand, get contaminated quickly in the cow area. A small amount of fresh bedding in the back of freestalls or under shades every day or every two days is helpful. Open lots should be groomed regularly to dry the surface, and areas where cows congregate or where water cooling is used need special attention.

Milking dry, clean udders is essential. Clean bedded areas help accomplish this. Pre- and post-dipping with an effective product is important, but washing udders does more harm than good. Most importantly, proper milking and cow care in the parlor must be done every day, every milking. Employee training and monitoring can get this done.

Maintain milking equipment. Change liners on schedule and have a professional monitor the overall performance of the system. Anything that reduces liner slip will reduce environmental infections. Likewise, keeping teat ends healthy with well-operating equipment helps the cow's number one defense, the streak canal. If these bacteria can't get in, they can't cause new infections.

**Monitor vitamins, minerals.** Good nutrition is important. Your nutrition consultant should help you monitor levels of Vitamin A and E, as well as selenium, copper and zinc in the total diet. Cows are pretty effective at protecting themselves and recovering from an infection if they are healthy and comfortable in every other way.

Vaccines can be helpful in limiting new coliform infections and making those that occur less serious to the cow. The J-5 vaccine given in the dry period will offer limited protection against some coliforms. An effective vaccine against *Strep. Species* is not available.

We will never eliminate this mastitis menace, but it is possible to control. When several cows have environmental mastitis at once, look for something "broken" in their environment.

**Attention Cattlemen:**

# **2010 Oregon Feedlot & Carcass Futurity**

**\*Retain ownership of your calves and collect beneficial carcass and performance data**

**\*Test your cattle's performance in a real world feedlot situation**

**\*Receiving date at BNW Nyssa- Monday, November 16th and  
Wednesday, November 18th in Boardman**

**\*All cattle will be fed at Beef Northwest - Boardman**

**\*Cattle will be co-mingled and each participant will be billed separately at the end of the trial**

**Heifers  
Or  
Steers**

**Baker, Union,  
Umatilla and  
Malheur Counties  
Participating**



**Calves should be born  
before March 1st,  
weigh 600-900  
pounds and weaned  
45 days prior to trial  
start**

**For more information contact Anna-Marie Chamberlain at the  
Malheur Extension Office for an entry form  
541-881-1417**

# Livestock News

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Anna-Marie Chamberlain, OSU Extension Agent

## The 3/50 Project

(Adapted from [www.the350project.net](http://www.the350project.net))

### SAVING THE BRICK & MORTARS OUR NATION IS BUILT ON

- 3 What three independently owned businesses would you miss if they disappeared? Stop in. Say hello. Pick up something that brings a smile. Your purchases are what keeps those businesses around.
- 50 If half the employed population spent \$50 each month in locally owned independent businesses, it would generate more than \$42.6 billion in revenue.\* Imagine the positive impact if 3/4 the employed population did that.
- 68 For every \$100 spent in locally owned independent stores, \$68 returns to the community through taxes, payroll and other expenditures. If you spend that in a national chain, only \$43 stays here. Spend it online and *nothing comes home*.
- 1 The number of people it takes to start the trend... *you*.

**Pick 3. Spend 50. Save your local economy.**

\* Employment statistics courtesy U.S. Department of Labor 2/6/09

