Happy New Year! Well old man winter is officially here, snow is pilling up all over Eastern Oregon making next years irrigation season looking more and more promising. Let’s remember what our priorities are now, set management and production goals for the upcoming year and not forget about taking advantage of some educational opportunities as they arise. For all you livestock producers that are feeding grain hays or new plantings of grass hay that may have been infested with weeds please take the time to sample and test these feeds for Nitrates. Nitrate poisoning can have a very sudden and dramatic impact on your cow herd. Most nitrate poisonings happen within 30 minutes to 4 hours after feeding contaminated forages. The simple $15-$20 test can be a very inexpensive insurance policy protecting against dead cows.

Also with the ending of 2008 and the beginning of 2009 ODA wants us to remind everyone that has applied herbicides or pesticides that they need to report them under the ODA PURS program by January 31, 2009. Please visit the ODA PURS site at http://www.oregon.gov/ODA/PEST/purs_index.shtml.

Take a look at the calendar of events and plan on participating in the educational efforts that are available. I look forward to seeing and hearing from you all in the near future.

Take the time to slow down on occasion and enjoy your family, co-workers and surroundings. These are truly wonderful communities that we live in and the scenery that we are surrounded by is surpassed by very few.

Wishing you a very happy New Years and a great winter.

Cory Parsons
OSU/Baker-Union County Extension Agent
Winter Cold Stress On Cattle

Steve Boyles, Ohio State University Beef Extension Specialist and
Jeff McCutcheon, Knox County ANR Agent

Factors that create stress during the winter months are cold, wind, snow, rain and mud. The primary effect on animals is due to temperature. All these factors alter the maintenance energy requirement of livestock. Maintenance requirement can be defined, as the nutrients required for keeping an animal in a state of balance so that body substance is neither gained nor lost. An interesting thing to note is that while energy requirements increase, protein requirements remain the same.

Some published sources contain nutrient requirements for beef cattle that include guidelines for adjusting rations during winter weather. Even without published sources, competent livestock producers realize the need for more feed during cold weather. Make sure that water is available. If water is not supplied, cattle will reduce feed intake.

Daily dry matter intake of beef cows with respect to temperature

<table>
<thead>
<tr>
<th>Temp, F</th>
<th>&lt;5</th>
<th>5-22</th>
<th>22-41</th>
<th>41-59</th>
<th>59-77</th>
<th>77-95</th>
<th>&gt;95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake, % Change</td>
<td>1.16</td>
<td>1.07</td>
<td>1.05</td>
<td>1.03</td>
<td>1.02</td>
<td>0.90</td>
<td>0.65</td>
</tr>
</tbody>
</table>

The metabolic response to the stimulus of cold involves practically all the systems of the body. The striated muscles shiver, the heart beats faster, breathing becomes deeper, urine flow is increased and the sympathetic and pituitary controlled systems are activated so to elevate biological oxidations (energy expenditure or heat production) in all tissues. The result is an increase in the cow's requirements for energy.

Spring calving cows, and particularly heifers, in poor body condition are at risk for calving problems. The result may be lighter, weaker calves at birth, which can lead to a higher death loss, and more susceptibility to things such as scours.

Animals in poor condition before calving, provide inferior colostrum and lower milk production. This can lead to lighter weaning weights or fewer pounds of calf to sell. Females that are in less than desirable body condition at calving are slower to return to estrus. Therefore body condition at calving affects the current calf crop (milk production) and next year's calving date (rebreeding date).

In most years hay and stockpiled forage can adequately provide the needed nutrients, but it can very widely and should be tested to make sure it is adequate. Your local Extension Office may have a test probe and can help you with submitting the sample to a laboratory. There is a range of temperature where cattle are neither too hot nor too cold and their performance is optimal. This temperature range is called the thermoneutral zone. It is the temperature range where the fewest nutrients are needed to maintain bodily functions. For cattle the lower temperatures of the thermoneutral zone
are shown in Table 1. All of the critical temperatures listed are effective ambient temperatures, which basically mean the wind chill temperature is used if the cattle are not sheltered. The critical temperatures also take into consideration the insulating ability of the cattle, as shown by the change between a wet and dry coat.

**Table 1. Estimated Lower Critical Temperatures for Beef Cattle * **

<table>
<thead>
<tr>
<th>Coat Description</th>
<th>Critical Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Coat or Wet</td>
<td>60 degrees F</td>
</tr>
<tr>
<td>Dry Fall Coat</td>
<td>45 degrees F</td>
</tr>
<tr>
<td>Dry Winter Coat</td>
<td>32 degrees F</td>
</tr>
<tr>
<td>Dry Heavy Winter Coat</td>
<td>19 degrees F</td>
</tr>
</tbody>
</table>


If we have a choice, snow is preferred to a cold rain. We lose what is called "air insulation" in cattle that get wet versus those that are out in the snow. The air pockets between hair fibers are a source of insulation. We lose this insulation when hair gets matted down in a cold rain. The result is that the Dry Winter Coat goes from having a critical temperature of 32 degrees F to about 59-60 degrees F.

From several studies it is estimated that for every one degree below the critical temperature a cow's energy requirement (TDN) increases 1 percent. It is also estimated that for every ten degrees below the critical temperature the digestibility of the ration decreases by 1 percent. This means that when the temperature drops below the critical temperature the cattle need to be fed better. It may be that more or better hay needs to be fed.

**Table 2. Example of Effect of Temperature on Energy Needs**

<table>
<thead>
<tr>
<th>Effective Temperature</th>
<th>Extra TDN Needed</th>
<th>Extra Hay Needed (lbs/cow/day)</th>
<th>Extra Grain Needed (lbs/cow/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 F</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>+30 F</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 F</td>
<td>20%</td>
<td>3.5-4 lbs</td>
<td>2-2.5 lbs</td>
</tr>
<tr>
<td>-10 F</td>
<td>40%</td>
<td>7-8 lbs</td>
<td>4-6 lbs.</td>
</tr>
</tbody>
</table>

Besides cold weather effecting cattle performance producers have another thing to consider during winter, mud. It is less clear what effect mud has on a cow's energy requirements but it is estimated that it can increase the maintenance requirement from 7-30%. If cattle have to deal with mud then their ration should also be improved, to help avoid the consequences listed above. Another tool producers have to help determine if what they are feeding is adequate, besides forage testing, is Body Condition Scoring (BCS). In the last trimester of pregnancy a cow should have a score of 5,6 or 7 on a 1-9 scale. If a cow is going down in BCS then the ration is inadequate and should be improved.
COOL and Brand Inspection

It looks as though Country of Origin (COOL) is here to stay. We are in the implementation stages now and it appears there is an obvious niche the brand inspection program can fill. Since all movements and changes of ownership require a brand inspection, the brand program has added a generic COOL statement to the brand inspection certificate issued at country inspections.

By adding this to the back of the brand certificate that accompanies the animals to their next destination, it makes for one less piece of paper to track their origin. This statement is for the seller/shipper to fill out and sign. This statement is addition to the prohibited feed statement that has been on for years.

All inspectors should have these in hand and available by January 1, 2009. The auction markets are using a blanket statement which passes on the origin so there is no change in certificates issued by brand personnel there.

Roger Huffman ODA Brand Program

2009 RED BOOKS and POCKET CALENDARS

The 2009 edition of the Red Book, sponsored by the Oregon Cattlemen’s Association in cooperation with OSU Extension Service, is now available at the Baker and Union County Extension offices.

These pocket books are designed as a tool to be used in the Integrated Resource Management program (IRM), which is dedicated to improving the economic efficiency of cattle operations through effective resource management. Sections for recording information such as calving and weaning data, vaccine information, pasture usage and rotations, and other production details, along with a daily calendar, are included in the pocket-sized book.

Limited supplies of Red Books are available for $4.50 at any of the above offices. For more information please contact Cory Parsons at 523-6418 or your local Extension Office.
2009 NE Oregon Private Pesticide Applicator  
Pre-Exam Training

Only the key principles and knowledge needed to take the private pesticide applicator exam will be covered. Training session is designed to cover the key principles and knowledge needed to take the private pesticide applicator exam and is not considered a comprehensive review. Self-study and thorough review of all ODA-recommended materials strongly encouraged. However, it will also be helpful review for: 1) individuals preparing to take a Laws & Safety exam for any public or commercial license; or 2) any licensed applicator (Private, Public, or Commercial) who needs general re-certification credit.

Please RSVP by calling your local OSU Extension Service office! 4 total pesticide applicator re-certification credits are anticipated for this event (AM Session = 2 credits & PM Session = 2 credits). Current licensed applicators may obtain credit for either the AM session or PM session or both sessions. Need an exam? Set up an appointment with the Union-Baker ESD by calling 541-963-4106.

Training Session Dates & Agenda

January 27 (Tues.) Union County—Agriculture Service Center Conference Room, Island City.  
Contact: Darrin L. Walenta, Union Co. Extension, 10507 North McAlister Road, LaGrande. Phone: 541-963-1010

Contact: Cory Parsons, 2610 Grove Street, Baker City. Phone: 541-523-6418

January 29 (Thur.) Wallowa County - Community Connections, Enterprise.  
Contact: John Williams, Wallowa Co. Extension, 668 NW 1st Street, Enterprise. Phone: 541-426-3143

Morning Session (2 re-certification credits anticipated):

10:00 a.m.  
Welcome, Orientation & Pesticide Applicator Update - Host County
10:05 – 11:15 am  
Pesticide Labels and Formulations – Cory Parsons, OSU (all 3 counties).
11:15 – noon  
Math for Applicators. Gary Kiemnec-OSU (Union, Baker Co.) John Williams-OSU (Wallowa Co.)
noon – 12:30 p.m.  
Lunch (lunch on-site, please bring your lunch)

Afternoon Session (2 re-certification credits anticipated):

12:30 – 1:00 pm  
Review Math Exercise – Gary K. / John Williams
1:00 – 2:00 pm  
Pesticide Safety, Toxicity, & PPE – Darrin Walenta, OSU
2:00 – 2:15 pm  
Break
2:15 – 3:15 pm  
Calibration, Nozzle Selection, & Spray Drift – Tom Wolf, Agri-Food Canada
3:15 pm  
Session ends
Cow’s and Creek’s.... February 20th, 2009

The Baker County OSU Extension Service along with the Baker County Association of SWCD’s are proud to announce the 2009 Cow’s and Creek’s program. This year’s program will focus on livestock grazing and management strategies aimed at protecting and promoting healthy fish populations in our local watersheds. This program will be held at the OSU Baker County Extension office located at 2610 Grove St in Baker City.

Proposed Agenda:

8:45-9:00 Registration: $7.50 per person
9:00-9:15 Welcome
9:15-10:45 Life Cycle of Fish (Guillermo Giannico, Oregon State University)
10:45-Noon Grazing to ensure success of the rancher and the fish. (Jimmy Eisner, BLM National Riparian Service Team)
Noon-12:45 Lunch Provided
12:45-1:15 Update on ODA Water Quality Regulation (Doni Clair, Oregon Department of Agriculture)
1:15-2:00 Ranching Success Story: Tim DelCurto (EOARC, Union Oregon)

Tim is the Superintendent at the OSU Experiment Station in Union Oregon. He manages cattle grazing trials on Catherine Creek, Milk Creek and the Starkey Experimental Forest, all of which have fish related issues. Tim will discuss the pros and cons of managing cattle for fish habitat.

2:00-3:00 Financial and technical assistance for landowners in preparation for fish. (Tim Bailey, Oregon Department of Fish and Wildlife)

Using Ration Balancing, Management Flexibility, and Past Experience to Minimize Winter Feed Costs

OSU Extension will conduct an interactive, participant driven, Winter Nutrition and Feed Cost Forum on Friday, January 16, 2009 at the OSU Agriculture Program, Badgley Hall Huber Auditorium, at Eastern Oregon University, from 1:00 to 5:00 PM. This forum will help provide cattle producers with information on how to manage their cows and feeding protocol to lower feed winter feed costs. At the beginning of the forum, all participants will be asked to provide one question they would like answered. In addition, cattlemen are encouraged to bring their feed tests to the meeting to assist in formulating winter rations that meet management objectives but at the least cost.

Cattlemen should be enlightened about possible wintering cost saving strategies from the interactive discussion and presentation. This timely program has the potential to assist cattlemen in saving money on their feed costs this year.

Huber Auditorium of Badgley Hall is best accessed from 6th Street and University Blvd. The location is on the Northwest end of the EOU campus.

If you have any questions about this program, feel free to contact David Bohnert (541-573-8910).
5th Annual
Cattleman’s Workshop
Opportunities in a Changing Beef Industry
Saturday, January 17th 2009
Blue Mountain Conference Center
404 12th Street, La Grande, OR

9:00 - 9:15 Workshop Introductions & Overview.
Ron Rowan, Beef Northwest Feeders. North Powder, OR

9:15 - 10:00 Challenges and Opportunities for the Beef Cattle Industry.
Dr. Tom Field, National Cattleman’s Beef Association. Denver, CO

10:00 - 10:45 Integration of the US Beef Industry in the World Market.
Chandler Keys (JBS), Vice President of Government and Industry Relations.
Washington, DC

10:45 - 11:00 Break (provided by sponsors)

11:00 - 11:45 Strategies for Cow/Calf Production Success.
Dr. Jerry Lipsey, Executive Vice President American Simmental Association.
Bozeman, MT

11:45 - 1:00 Lunch (provided by sponsors)

1:00 - 1:45 Cow/Calf Strategies for Uncertain Times.
Dr. Gary Sides, Cattle Nutritionist, Pfizer Animal Health. Sterling, CO

1:45 - 2:30 Commodity Markets and Positioning a Business in Uncertain Times. Don
Killingsworth, President, Killingsworth Trading, Kansas City, MO

2:30 - 2:45 Break (provided by sponsors)

2:45 - 3:30 Tailoring Cow/Calf Production for a Changing Beef Industry.
Tom Brink, Senior Vice President, Five Rivers Ranch Cattle Feeding.
Loveland, CO

3:30 - 4:15 Panel Discussion & Wrap-up.
Tommy Beall, Beall Consulting Group, previously with ContiBeef and Cattle Fax.
Mead, CO

Note: For more information, please contact Kim Verhelst or Tim DelCurto at (541) 562-5129
http://oregonstate.edu/dept/euracunion
Calendar

January:
22   BCLA/Cattlewomen, Sunridge Inn, 5:30 pm Dinner, 6:30 pm Combined Meeting
16   Winter Feeding Program, more information inside
17   5th Annual Cattleman’s Workshop (LaGrande)
27   Private Pesticide Applicator License Pre-Exam Training, Union Co, Agri. Service Center
28   Private Pesticide Applicator License Pre-Exam Training, Baker Co, Extension Office
29   Private Pesticide Applicator License Pre-Exam Training, Wallowa Co, Clover Leaf Hall

February:
  2   Union Cattlemen Meeting, Extension Office, 7-9 pm
13   Grasshopper IPM Workshop, 7:30 am—5:00 pm, Extension Building
19   BCLA, 7-9 pm
20   Cows and Creek Program, more information inside

March:
  2   Union Cattlemen Meeting, Extension Office, 7-9 pm
19   BCLA, 7-9 pm