



# COW SENSE CHRONICLE

MARCH 2013

## GRASS TETANY

I might be getting ahead of myself, but hopefully green grass (and plenty of it!) is right around the corner. With that in mind, grass tetany is probably a timely topic. Grass tetany is a metabolic disease of cattle associated with grazing lush, green pasture. The condition is caused by low blood concentrations of magnesium, which is a required mineral for cattle. When pastures are growing rapidly in the spring, grass may not contain adequate amounts of magnesium to meet requirements.

High potassium and crude protein concentrations found in rapidly growing forage complicate the grass tetany issue, because they can both interfere with the absorption of magnesium from the rumen. Magnesium requirements increase during lactation, so lactating cows have increased risk of developing grass tetany, and the risk increases as milk production increases. Low calcium intake combined with inadequate magnesium intake can result in more severe cases of grass tetany. Stress, storms, or other conditions that result in cattle being off-feed for 24 to 48 hours may decrease blood magnesium levels and cause grass tetany in several cows in a herd at one time.

Signs of grass tetany could include finding dead cattle with evidence they may have struggled. Symptoms in live cattle could include convulsions, weakness, disorientation, or aggressive behavior. Testing for grass tetany can be accomplished by collecting a blood sample in live animals, although care must be taken. Life-threatening convulsions can be caused by simply running the animals through the chute to collect a sample. Blood concentrations of magnesium return to normal after death, but magnesium concentrations of fluid from the eye or cerebrospinal fluid do not change near death and are good sources for testing for grass tetany in animals found dead.

Prevention of grass tetany is the key to successfully managing this condition. Achieving increased calcium and magnesium consumption through supplementation is the main goal. Daily intake of magnesium is important, as grass tetany can occur within 48 hours when blood magnesium concentrations are too low. This can be accomplished in several ways, from salt-mineral mixes to molasses-based lick tubs, all of which are available in “high-mag” formulations at your local feed store. Supplying additional magnesium during the early growing season can help your operation avoid losses from grass tetany.

# RANCHING RESILIENCE: 2013 MONTANA NUTRITION CONFERENCE AND LIVESTOCK FORUM GRANTREE INN, BOZEMAN, MT

## Tuesday, April 9, 2013

11:00-12:30 – Registration

12:30 – Welcome

1:00-2:00 – **Creating Flexibility in Your Ranching Enterprise** – Dr. Clay Mathis, King Ranch Institute for Ranch Management

2:00-3:00 – **Wildlife Damage Control on Rangelands** – Dr. Jim Knight, Montana State University

3:00 – Break

3:15-4:15 – **Developmental Programming in Livestock: Why Maternal Nutrition Impacts More Than Just the Dam** – Dr. Kim Vonnahme, North Dakota State University

4:15-5:15 – **New Frontiers in Mineral Nutrition** – Dr. Troy Wistuba, Novus International

5:30 – Social

6:15/6:30 – Dinner and Scholarship Presentations

Evening speaker: **How Do We Maintain US Beef Production Sustainability and Resilience Moving Toward 2050?** - Dr. Jude Capper, Independent Sustainability Consultant and Adjunct Professor, Washington State University

## Wednesday, April 10, 2013

7:00-8:00 – Breakfast, Grad student poster judging

8:00-9:00 – **Long and Short-Run Cattle Market Challenges and Opportunities** – Dr. Derrell Peel, Oklahoma State University

9:00-10:00 – **The 2000-2006 Drought: Groundwater-level Response in Wells** – Tom Patton, Montana Bureau of Mines and Geology, Montana Tech

10:00 – Break

10:15-11:00 – **Ranching Communication 101: Can You Hear Me Now?** – Chaley Harney, Montana Beef Council

11:00-11:45 – **Beef Cow Nutrition and Reproduction: A Systems Approach** – Dr. Rachel Endecott, Montana State University

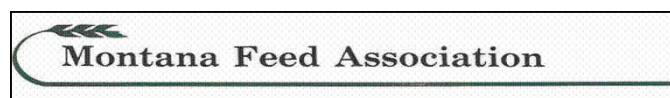
11:45-12:00 – Presentation of graduate student poster awards – Dr. Pat Hatfield

12:00 – Conference wrap-up – Rachel Endecott

**\$80 PRE-REGISTRATION FEE; \$100 AT THE DOOR**

**COMPLETE CONFERENCE BROCHURE AND REGISTRATION INFORMATION AT:**

<http://animalrange.montana.edu/conferences.htm>



# MARCH 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					<i>1</i> WELD Conference, San Diego, CA	<i>2</i>
<i>3</i>	<i>4</i> Western Beef Resource Committee Meeting, Reno, NV	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>	<i>15</i>	<i>16</i>
	-----Annual Spring Break Calving Vacation-----					
					Ennis High School Science Club	
<i>17</i>	<i>18</i>	<i>19</i> Moxey Schreiber Veterinary Meeting, Sheridan, WY	<i>20</i>	<i>21</i>	<i>22</i>	<i>23</i>
<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i> Rancher Roundtable, Whitehall	<i>29</i>	<i>30</i>
<i>31</i>						