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DAIRY PIPELINE

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Do you suffer from "Barn Blindness"?

—Jeremy Daubert, Extension Agent, Rockingham County; jdaubert@vt.edu

Have you ever had someone come to the farm and point out a lame cow that you did not notice? Have you looked at some other cows and thought immediately how much better yours were? Barn blindness is a term that can be used in many different ways. It can be thinking that your cows do not have a functional flaw that they actually do. Alternatively, it can be a disease that goes unnoticed for far too long. Here, I will focus on the animal health aspect of barn blindness.

"Barn Blindness can lead to some of the bottlenecks on a farm that separate the top herds from the average herds."

Studies done in the U.S.(Espejo, 2010), U.K.(Whay, 2003), and Canada (Croyle, 2016) indicate that farmers underestimate lameness in their herds. Actual lameness is 2.4 -3.9 times more prevalent than farm owners estimate according to these studies. This can be true with anything that is subjectively measured or that changes slowly over time. This can also be the case where signs are subclinical and what is abnormal becomes normal in the eyes of those who see it every day.

When one sees and works with the same animals every day it is natural to have some biases and become desensitized to things that are seen constantly or that change slowly over time. *"That is how she looks every day, so it must be normal".* To combat these biases the use of technology can be beneficial. Technology such as pedometers and rumination monitors can track changes and detect developing situations before they would normally be recognized visually. When a cow becomes lame, readings on these devices will be affected very quickly even in mild cases.

Having an outside person's honest assessment can also be helpful in identifying sick, lame, or abnormal animals in the herd. Another eye can be very helpful in finding problems and high-risk animals in the herd.

Barn Blindness can lead to some of the bottlenecks on a farm that separate the top herds from the average herds. It is beneficial to view one's operation with open eyes, as identifying these bottlenecks and problems sooner can lead to a more profitable dairy farm in any economy.

Fluid therapy for sick cows: To pump or not to pump?

—John Currin, Extension Dairy Veterinarian; jcurrin@vt.edu

There are many diseases affecting cows on dairy farms today. These diseases include milk fever, retained placenta, metritis, ketosis, mastitis, lameness, rumen indigestion, and displaced abomasums. These diverse diseases have one thing in common—they often cause cows to have significantly reduced feed intakes. As in humans, nutrient intake in cattle is key in helping the cow overcome the disease. Both veterinarians and farmers have become very good at primary treatment of these diseases. Getting the cow started back on feed will help ensure a better recovery rate for your patients.

In the past these cows often received "pink pills" which contain magnesium hydroxide, a powerful alkalinizing agent. Years ago when most cows were slug fed grain in the parlor and received limited forage on the bunk many may have suffered from grain overload, leading to the severe acidosis these pills are designed to treat. In today's herds, while subclinical rumen acidosis can be a big problem, it is unusual to see cases of severe acidosis. In fact, the rumen of cows that have been off-feed for more than 24 hours is usually very alkaline. The normal bacterial flora of the rumen

DAIRY SCIENCE

Upcoming Events

See VTDairy for details.

October 5, 2018
Dairy Revenue Protection
Harrisonburg, VA

October 13, 2018
Hokie Dairy Day
(Youth Event)
Blacksburg, VA

October 27, 2018
Dairy Science Open House
Blacksburg, VA

November 12, 2018
Media Training: Learn Techniques to Answer Tough Questions, Improve Presentations and Gain Confidence in Your Skills
Rockingham County Government Center

If you are a person with a disability and require any auxiliary aids, services or other accommodations for any Extension event, please discuss your accommodation needs with the Extension staff at your local Extension office at least 1 week prior to the event.

For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program on the web at: www.vtdairy.dasc.vt.edu.

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can survive and thrive around pH 7. If the pH becomes too high many more bacteria will die off leading to cows that are more difficult to get started back on feed.

People often overlook other things that can be done to increase the success rate in treating these diseases. Fluid therapy is one of the most beneficial things that can be done for cows that are off feed. Fluid therapy provides the nutrient that cattle have the *highest* requirement for: *water*. Several of the diseases mentioned above cause dehydration both from reduced intake and diarrhea. An adult dairy cow can easily tolerate 10 gallons of water being administered into the rumen. At least five gallons need to be administered if a significant difference is going to be made for the cow. High volumes of fluids can be administered by either the Cattle Pump System® (Magrath Company), the AAS® drench system (Advanced Agri Systems), or a homemade gravity flow system. Each of these systems allows one person to quickly administer large volumes of fluids.

> "Fluid therapy provides the nutrient that cattle have the *highest* requirement for: *water*."

Fluid therapy also provides a convenient method for administering other nutrients to the cow. These nutrients fall in to four categories: minerals, nutritional support for the cow, nutritional support for the rumen bugs, and rumen microbes. Many commercial products are available that can be added to the water. These products vary greatly in content and expense. Table 1 contains guidelines for evaluating these products. Some producers prefer to make their own drench. Table 2 shows one example recipe of a drench that can be made on-farm. Calcium is probably the most important thing that can be added. Sixty to 100 grams of calcium are needed. Salt should be added at a rate of 120-160 grams and potassium chloride at a rate of 90 grams. A glucose precursor is important for preventing or treating ketosis. Sixteen ounces of propylene glycol, or 12 ounces of propionate once a day is sufficient. Megalac® can be added to provide additional energy for the cow. Ground alfalfa meal is a good source of nutrients for the rumen bugs. Three to five pounds can be added to the mix. Lactobacillus and yeast fermentation products are the most common microbe products that are commercially available.

There are numerous commercial drenches on the market. Some of these drenches are very good and contain most everything you could want in a drench. Others do not contain enough Ca and other ingredients to be as beneficial as the more complete drenches. Both AAS drench from Advanced Agri Solutions and BC Dairy Drench from Renaissance Nutrition are complete drenches that are readily available to Virginia dairy producers.

Amount	Product	Ingredients
0.5 lbs	Nutra-Cal®	Calcium and Propionate
1 lb	Fresh Cow YMCP®	Calcium, Propionate, Lactobacillus
90 grams KCl	50 lb bag KCl	KCl
160 grams NaCl	50 lb bag white salt	NaCl
0.5 lbs	Diamond V Yeast®	yeast
3 lbs	50 lb. bag ground alfalfa meal	alfalfa

Table 1. *Nutrient requirements for an adequate dairy cow drench*

Rank	Ingredient	Amount
1	Calcium	60-100 grams
2	Propylene Glycol or Propionate	16 ounces 12 ounces
3	Potassium Chloride (KCl)	90 grams
4	Alfalfa Meal	3-5 lbs
5	Salt (NaCl)	120-160 grams
6	*Lactobacillus*	see manufacturer guidelines
7	Yeast	0.25—0.5 lbs
8	Megalac®	0.5—1 lbs

Table 2. *A homemade recipe for making your own drench*

Disclaimer: Commercial products are named in this publication for informational purposes only. Virginia Cooperative Extension does not endorse these products and does not intend discrimination against other products which also may be suitable.