



Dairy Pipeline

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Herd Health Records: Challenge or Opportunity?

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Health records vary greatly from farm to farm in quality and completeness. Some farms keep records electronically and others maintain them on paper. While paper records will provide a record of individual animal disease and treatment, it is much more difficult to sort and summarize compared to electronic records. Health records present both a challenge and an opportunity for dairy managers. The challenge is to design a system that allows for easy, consistent data collection for all animals on the farm (calves, heifers, dry cows, and milking cows). At the same time, an opportunity exists to use herd health data in conjunction with other performance data to improve overall herd performance and profitability.

To evaluate the effectiveness of a herd's current health records, one should consider whether the following questions can be readily answered.

- What is the incidence of milk fever, ketosis, mastitis, displaced abomasum, metritis, retained placenta, lameness, and respiratory disease?
- What are the most common diseases in the herd? What do these diseases have in

common? For example, are they metabolic, infectious, or environmental?

- When do the most common diseases occur? Around calving? During particular times of the year?
- Which treatments are working best? Which ones are less effective?
- Which animals should be culled due to chronic health problems?

In addition to answering the questions above, there are several other desirable characteristics of a good herd health recordkeeping system. Data collection should be kept up to date. Data entry should be intuitive and consistent. The system should be able to generate reports and summaries that may be used to monitor and analyze herd health on a regular basis.

The following tips and suggestions may be useful in designing or refreshing herd health recordkeeping.

- Develop protocols for identification and treatment of common diseases. Protocols are important for consistent treatment and may include medications, dosages, routes of administration, milk/meat withholding times, pen/group changes, and technician/employee initials. They should be designed using a team approach which includes input from relevant employees plus the herd's veterinarian.

- Record all disease incidents regardless of whether an animal is treated or not. Remember, a decision not to treat the animal is still a decision and should be evaluated as such.
- Record the outcome. Was the animal cured? Did the condition become chronic? Did the animal die? Was the animal culled? Outcomes are the missing piece of the puzzle in many herd health record keeping systems. Without them, the effectiveness of treatment protocols cannot truly be evaluated.
- Make note of the number of days the animal spends in the sick pen. If an animal is a frequent visitor, she may become a cull candidate.
- PCDART, Dairy Comp, or spreadsheets can be successfully used for maintaining, monitoring, and analyzing herd health records. Regardless of the chosen platform, it takes a commitment of time and attention to detail to set any of them up correctly.

Setting up a herd health recordkeeping system is ultimately an attempt to make health data as objective as possible so that it can be easily monitored and evaluated. The data collected can be used to answer questions like:

- Are herd levels of disease within guidelines?
- Is the transition cow program effective?
- Is disease limiting peak milk production?
- Is the nutrition program supporting herd health and performance?
- Is disease hindering reproductive efficiency?
- Is disease a limiting factor in calf and heifer growth?
- Is colostrum management impacting calf and heifer health?

- Is the herd's vaccination program effective?

Without planning and preparation, data entry can be overwhelming and data analysis fruitless. Accurate, complete health records are worth the investment in time to develop if they are used regularly in herd management analysis and decision-making.

A Matter of Mouths: Abnormal Oral Behavior in Dairy Cattle

Authored by Shannon Chick, Ph.D. student with Katharine Knowlton, The Colonel Horace E. Alphin Professor of Dairy Science, Virginia Tech School of Animal Sciences; knowlton@vt.edu

Have you ever come across a cow rolling her tongue? Or chewing on the fencing that makes up their pens? Maybe you have seen a cow sucking on another cow's ear? You may think to yourself this is just another "thing" cows do—but in reality, farmers should pay close attention to these peculiar behaviors, known as abnormal repetitive behaviors. The behaviors described above, categorized by consistent motor patterns of the mouth, are considered abnormal oral behaviors.

These types of behaviors can be associated with stress and are seen in a wide variety of captive and domesticated animals. This stress can translate to reduced milk production. A stressed cow rolling her tongue or chewing another cow's ear is a sign of lower welfare status, and will inhibit milk letdown, thus complicating the overall milking experience. Zoos are much like dairy farms, as they both are criticized for their animal welfare. To combat this, zoos provide their animals enrichment to stop abnormal behaviors. Enrichment is any addition to an animal's environment that can promote natural behaviors.

Tongue rolling has been documented in captive giraffes and the use of enrichment designed for giraffes has been modified to be used with dairy calves. However, enrichment use is not widespread in the dairy industry. But there is good news on the horizon; there are several methods to help reduce abnormal oral behaviors seen in calves.

One way to reduce these behaviors is housing calves in a group setting. A study on the prevalence of abnormal oral behaviors in calves found that those living with less than ten other calves were at greater risk of performing tongue rolling. In addition to larger group housing, the study found that allowing more space for calves than the minimum required reduced tongue rolling. The less space an animal has, the more atypical behaviors they may present, which is evident in calves that have access to limited space. Cattle are social, herd animals; having others to interact with creates a more natural environment for them. However, space is not unlimited and changing calf management practices can be difficult depending on the farm.

For farmers who are short on space, human interaction helps to reduce abnormal oral behaviors. Human contact with calves that are housed both individually and in pairs has been shown to decrease the amount of abnormal oral behaviors, including chewing on their pen, bedding, or cross-sucking their pen mate. Humans are a novelty to a calf's barren environment, so even a small amount of time with a human can be of benefit. Even fifteen minutes of human-calf interaction can result in benefits.

Perhaps the simplest solution to reducing abnormal oral behaviors is providing calves with hay from the time they are born. It is thought that calves perform these behaviors because they are lacking stimulus in their environment or their motivation for sucking is not being satisfied. With access to hay, calves will spend their time chewing on the hay instead of their pen. The

opportunity for the calves to manipulate hay early on in life may fulfill their natural motivation for foraging. This method can be taken a step further by providing hay in novel feeders, such as a pipe with holes that are stuffed with hay. This makes the calf invest more effort into obtaining the hay and in theory is mentally stimulating, thereby increasing their welfare. Even without a novel feeding device, providing hay still shows benefits in reducing abnormal oral behaviors.

With social media being an ever-present part of our lives, the push from consumers for improved animal welfare is more prevalent and producers are continually challenged to provide better conditions for animals. While this pressure can be frustrating to the people that dedicate their lives to these animals, welfare can be relatively easy to improve by allowing group housing or access to more space, human interaction, or providing hay earlier in life to calves. Even without implementing any of methods discussed, simply understanding what these behaviors indicate can be beneficial. By watching their animals, producers can gain insight into the welfare state of their animals that will in turn help them make decisions that reduce animal stress while increasing profitability.

Upcoming Events

North American Intercollegiate Dairy Challenge

March 30 – April 1

VA Dairy Skillathon (Youth)

April 28, 2023

Little All-American

April 29, 2023

Virginia Spring Holstein Show

April 29, 2023

20th Hokie Cow Classic

May 15, 2023

June 2, 2023

Application Deadline for SDBII Farm Infrastructure Improvement Grant and the Precision Technology & Management Investment Grant

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.

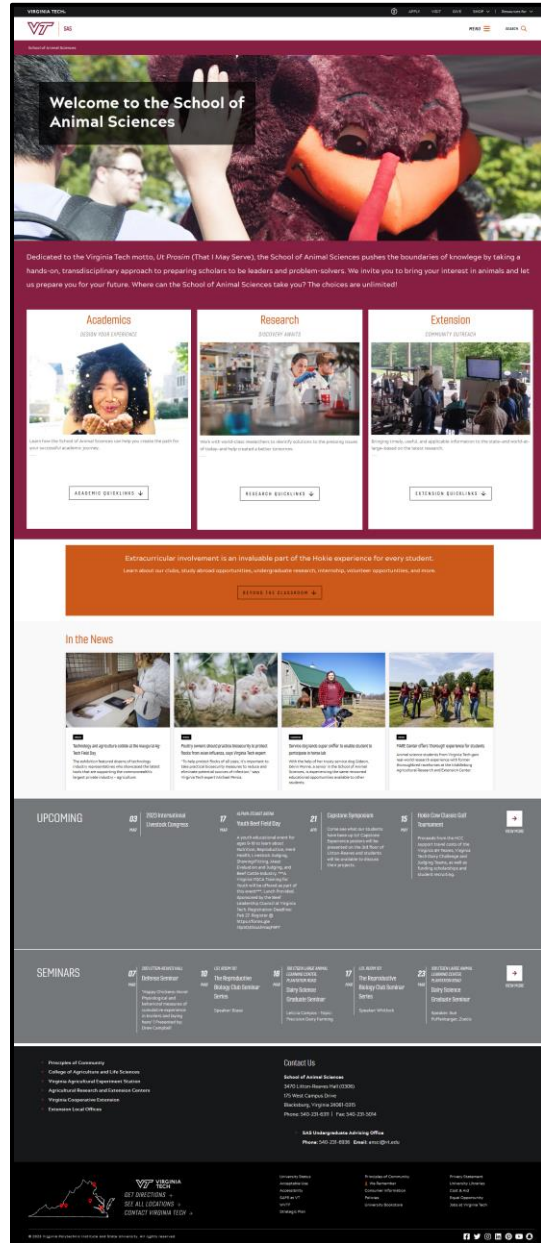
For more information on Dairy Extension or to learn about current programs, visit us at VT Dairy—Home of the Dairy Extension Program online at www.vtdairy.dasc.vt.edu.

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**Dr. Christina Petersson-Wolfe,
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