

OCTOBER - NOVEMBER 2015

C.R.E.A.M's

Moo's-Letter

C.R.E.A.M Class 2015-2016



No
Experience
Necessary;
Tales of the
Non-
Experienced
CREAMer
By Morgan Lazar

Growing up I have had plenty of small animal experiences from owning a wide variety of pets to working at a pet store and later working at a veterinary clinic. I know how to properly run a quick physical examination of a dog. I know how to

hold a cat in order to draw blood and I know more about sugar gliders than a regular person should know. However, nothing in my life has prepared me for C.R.E.A.M., mentally or physically.

Rewind to day one of class; my nerves were running wild and as I searched around for someone who looks as terrified as I felt. However, while I was making small talk with all of my classmates I learned that the majority has had a lot of experience working with large animals, primarily dairy cattle and horses. "Well, this will definitely be interesting," I remember thinking to myself. We filled out our availability for the next week of shifts and got a quick run down of the barn. Our advisors informed us that shifts start the next day, so "get ready". I didn't think they would have chosen someone like me for the first shift, specifically the first 4 am shift but of course things don't work out the way they are expected, and I got put on the first 4 am shift of year. No biggie...

I learned that mixing the diet wasn't too hard; it was a simple recipe that weighs everything out for you. The only tricky thing was that in order to mix the feed I needed to drive the 2,000 pound steel Jaylor. I had never tried to drive anything so large where I could only see a few feet to my left and absolutely nothing in front of me.

My morning was filled with a lot of small adjustments and back and forth movements to try and fit through the doors of the barn. Eventually, it all worked, Thankfully.

I was never afraid of dairy cows, but rather intimidated by their size and strength. I had to change my outlook quickly though because if I learned one thing during my week, these cows could sense my fear. It was noticeable during milking. I was most nervous about milking because everything had to be efficient. I shouldn't have been so nervous, except for the fact that I had never touched a cow's udder before, let alone tried to strip a teat. Each cow clearly could tell, and they were ruthless about kicking me away. Practice doesn't necessarily make perfect, but it definitely makes for huge improvements.

There is still one thing that I get hung up on. It is I am not very strong. I've realized that I have very little upper body strength. From shoveling energy mix above my head and into the Jaylor, to reaching up to strip a teat, to scooping a huge pile of poop up and over the rails in the pack barn. But hey on the plus side, I don't have to pay for a gym membership.

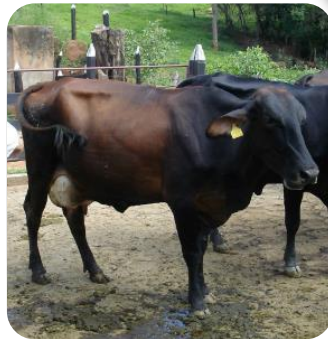
A Day as Dr. Andre Pereira in Brazil

By Elisabeth Wise

To begin the day, a meeting would be held after the morning showers. The drive to get to work in rural Brazil was often an adventure in itself.



Andre working in the intense heat would talk about possible improvements and suggestions regarding the health of the herds.



As a production veterinarian in Brazil, Andre, like other veterinarians was responsible for inspection of animal products, public healthcare, clinical cases, surgeries, and necropsies. In addition, the health management of the herd, the health of the environment, and the nutritional requirements to sustain a healthy herd were assessed.



After a long day of work, a barbeque was always a great way to end the day.



Cleaning Your Cow

By Shelby Biasini

For those of you who wanted a bit more detail about cleaning your cow, I have this in written form now! Your main goal is to have the cleanest cow possible. It takes a little bit of work to achieve that goal, but it is definitely achievable as we all saw when we had the first contest! All the cows looked so clean and everyone put in so much time and effort. This was awesome! Here's a little bit more information that I thought everyone would like to know about the steps to having the cleanest cow.

When washing:

- Wash 2-3 times before clipping, maybe every other day or two.
- Mix soap and water for a sudsy bucket to lather on her
- Scrub in circular motion and scrub every inch of the body to loosen dirt and manure
- If your cow has a white head, be sure to wash it well
- Wash in between the rear legs and udder as they tend to sweat a bunch there
- Careful to avoid spraying any water in her ears
- Rinse her well, either using your hand or a scraper to remove water and soap

After washing her, you should remove the water on her body by brushing her down with a dry brush. You can also brush the tail out and fluff it out by brushing the opposite way.

When clipping your cow, keep in mind a few key things that will help it go a lot easier.

- Oil clippers every 15 minutes and brush hair off filter
- Clip against the hair which is usually an upward motion
- Do not clip over wet hair or hair with manure on it
- Do not make fast strokes, but rather long slow strokes so you cover more area without clogging up the clippers

This is just a quick review of my mini lecture. Feel free to ask me for pointers on anything or any other people in class who have shown before, there are quite a few of us!





Learning How to Conduct a Physical Exam

By Alison Jeffrey

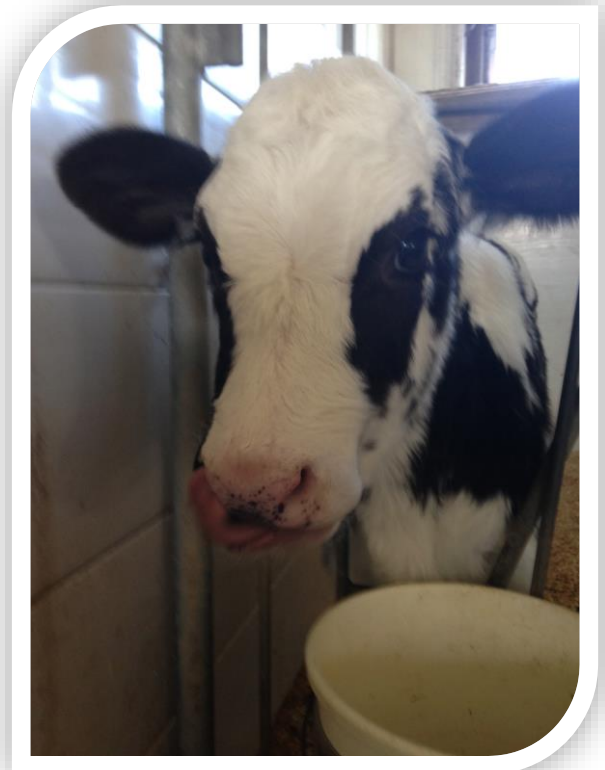
Dr. Dean Elder, the resident veterinarian of the UNH dairy herd, took the time this semester to teach a group of CREAMers how to perform an effective and

routine physical exam on a cow. The most important thing he emphasized was knowing what “normal” is for a cow. The ears in a healthy cow should be alert, either pointing up or out to the side, rather than flopping down. The cow’s posture should be even among all four hooves and along the spine. A cow’s body is typically slightly pear-shaped, where the ventral portion bulges out a little more than the dorsal part, when observed from the back end of the cow. Cows should also be consistently chewing their cud. Using a stethoscope we listened to the normal sounds of the cow. The heartbeat of the cow can be heard clearly between the body and the left front leg. When listening to the heartbeat, only the systolic beat is heard, making the beat sound like: lub...lub...lub...lub... We listened to the rumen and its contraction. This is done by placing the stethoscope on the upper left side, towards the back of the body. The rumen makes a constant low gurgling, with a louder rumble every 60 seconds or so. It was a great experience to learn from Dr. Elder how to physically examine our dairy cows. It will help our class identify abnormalities in any of our cows and be able to take the necessary actions to heal them or contact Dr. Elder without delay.

What’s the Word with the Herd?

What’s Going on our CREAM Cows?

- * Chipotle (#660) calved in late October and it was a heifer! Welcome to the world baby Sriracha!
- * Cupcake (#665) is being treated for mastitis
- * Herd Health Committee is treating Jolene (#777) for udder rot.



Interview with Professor Drew Conroy

By Courtney Gould

What is my favorite aspect of CREAM?

Student engagement in the course is one of the things that makes CREAM different and also what I like best about the course. As you may or may not know I teach 9 different courses at UNH. CREAM is altogether different in many ways from any of the other courses. Instead of me lecturing or leading the class, CREAM is what many some in academia call a flipped course. This means I allow students to lead and direct most of what they learn. Of course, I cannot allow students to choose just anything they want to learn. I do have an important role in outlining what you students learn and what I would allow you to do. But I love watching students engage in what it takes to manage a string of dairy cows. Rather than simply regurgitating what I lecture on, CREAM'ers engage in activities, discussions, and farm work, directly related to what I outline as my goals for the course. It also allows me to watch who is more engaged and who shows the **most initiative** in this unique course.

What made you want to be a college professor?

Honestly at age 22, I thought I would like to manage a farm for some rich farm owner. However, when I was finishing my Master's degree at Northwest Missouri State University, I heard about a farm management job at Sterling College in Craftsbury Common, Vermont. It is a tiny college, with a long history of engaging students in real work on their farm, as every single student has to work on the farm each week. In taking the job, I was also asked to teach a few courses, like Introduction to Animal Science and Farm Projects (where students had to manage animals as a business). It did not take me long to realize how much I enjoyed working with students, and helping them see the importance of animals and agriculture in our world.

I left that job to manage a beef farm in Maine for a man who also owned a rope factory. I enjoyed working with the beef cattle and managing the pastures and haying operations. Yet, I really missed students and the enthusiasm they had over farm laborers. When I heard a job was opening at the Thompson School at UNH in November 1989, I jumped at the opportunity. I knew the Thompson School was a good fit, because I spent three years at UNH getting my B.S. in Animal Science. Like you, I took classes with Thompson School professors and those ended up being my favorite classes due to their hands-on nature.

What is your favorite thing about being a college professor? Great question. There are a few things, but first and foremost after 28 years of college teaching, it is seeing

past students actively engaged in agriculture and Animal Science and having followed their dream. Whether it was vet school, running their own farm, getting a job in the field of agriculture, teaching

or whatever, I am happy knowing that maybe I helped them get there in some small way. Additionally, I genuinely enjoy *enthusiastically* sharing what I know. There are many other professors who know more science, math or are better researchers. However, I really try to get students to become engaged in what I am teaching, in part by having done all of what I teach and offering many stories. I like young people. I like their energy, intelligence, and optimism. And last, I try to encourage each of them to follow their dreams.



What else do you do, other than being a college professor?

With Facebook, and my participation on it, many of you see other things I do, which is a fun way for me to share my enthusiasm for animals, cattle, oxen and traveling to places often not visited by other people at UNH. I also love having a little farm in Berwick, Maine, where I can be with my family, cut firewood, work oxen, and raise some cattle sheep and chickens. However, if you ever caught me whistling the tune to Indiana Jones, you should also know that I like adventure, roughing it outdoors and challenging myself to understand farmers that raise livestock and cattle in other parts of the world, particularly Africa.

What do you wish students to learn or take away from CREAM? First, I think Dr. Fairchild who started CREAM in 1997 wanted students to have an experiential course that challenged them in ways other courses do not. In this regard, CREAM has been a success, based on 18 years of journals and course evaluations. I think he knew that to do that students had to be actively engaged, which goes back to my first point. Second, I want students to challenge themselves to be outside their comfort zone. Real learning often occurs when students immerse themselves in something new and are truly challenged. I believe it is important to be adaptable and able to learn in a work environment, because once you are out of college there are few exams. CREAM is about challenging students to be outside their comfort zone. Even those from dairy farms are often outside their comfort zone when working with students with no dairy experience. I want students to leave with an appreciation for cattle and food production. I also want students to understand that others watch you and know your performance in the workplace. You can be the smartest person in the world, but that will not guarantee that you will be successful working with others.

Zoonotic Diseases By Samantha Bromley

Any disease that is passed from animals to humans is referred to as a zoonotic disease. These can range from ringworm to bovine tuberculosis and include a variety of other illnesses that range in severity.

How can I contract a zoonotic disease?

- Ingestion of unpasteurized milk or undercooked meat
- Direct contact with saliva or infected skin areas of sick animals
- Bite of a tick or mosquito carrying the disease
- Disease can be transmitted through blood, urine, feces

The best way to avoid coming down with a nasty disease from your beloved pet (or a shady raccoon) is to be knowledgeable and take preventative action. Keep your animals safe from wildlife, minimize the mosquito population on your property by removing free standing water and use bug spray to protect yourself from insect bites, and stay up to date on any vaccinations that may be available to you and may be relevant to your area. Wash your hands after handling any animal to avoid ingestion of feces or urine, and wash your clothes if you have come in contact with an animal that may have contracted ringworm.

Calf Nutrition by Richie Shepardson

The first 24 hours are the most important for a newborn calf. Close to the time of giving birth (parturition), females produce a milk-like product called colostrum. Colostrum is important because it contains constituents that are vital for the calf's survival. In colostrum are agents called immunoglobulins, which allow the calf to develop an active immune system. Calves do not have an active immune system when they are born, and they are extremely susceptible to diseases, so the intake of colostrum is extremely important. Fat content is another aspect of colostrum because calves are born with a very low body fat percentage, and need fat for energy and warmth (especially in the winter months). Calves must be fed colostrum within the first 24 hours in order to have maximal absorption and therefore have the best response of the immune system. Because it is very likely that the udder of the dam (mother) has pathological agents present on it, dairy calves are often fed colostrum from a bottle as opposed to suckling directly off the teat.

