

Practice Tips

Moderator — Duane Miksch

Urine pH to Monitor Anionic Salt Programs

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Anionic salts help prevent milk fever by causing a mild compensated metabolic acidosis. The acidosis also leads to acid urine. Dr. Jesse Goff of the National Animal Disease Laboratory in Ames, Iowa suggests close-up dry cow urinary pH values above 8 indicates cows that are at greater risk of milk fever. Values below 7.3 indicate decreased risk of milk fever. These values have not been well worked out and over interpretation should be avoided. However, if anionic salts are fed and the method of action is through a metabolic acidosis, it is reasonable to expect some level of aciduria.

One possible cause of alkaline urine in close-up cows on anionic salts is mixing errors. The anionic salts may have been omitted or added at an amount less than the desired level. The error could happen on the farm or at the feed mill. A nutritionist using this technique found a dairyman feeding 0.5 lb of mineral instead of 1.0 lb as prescribed. One dairyman discovered the reason for a milk fever outbreak was due to calf mineral being fed

instead of close-up dry cow mineral. Another nutritionist found that there were no anionic salts in the close-up mineral/grain mix after discovering urine pH values above 8. There must have been a mixing error at the feed mill.

On one dairy, the feeds had changed and were higher in sodium and potassium, and lower in sulfur and chloride. These changes led to a minor milk fever outbreak and alkaline urine. Dairymen may use urine pH to monitor the fixed ions in a ration and save on ration analysis costs. If the urine becomes alkaline they know to add more anionic salts or retest the feeds.

Urine pH can be measured with a meter, pH paper, or urine dip sticks. We have found narrow range pH paper to be inexpensive and work very well. There are several brands available. We use Fisher Scientific's 6.0 to 8.5 pH range. (Phone # 800-766-7000, Catalog # A983, \$10.40 for pack of 3)

Tidbits From Tennessee, Part IV

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Good evening from Tennessee. It's nice to be invited back to talk again in the practice tips session. I appreciate it. For those of you who heard me in Nashville, Buffalo, or Kansas City, this talk won't be any better than those, so your friends who aren't here tonight

won't be missing much by not hearing me.

I was in practice for about 12 years before becoming the Head Extension Veterinarian in Tennessee, so I put in a lot of time on the road treating a lot of cows, horses and so forth. I hope you can use some of what I

have to say when you get back home.

In practice, I found that if I could get the day started off right, things seemed to go better all the way around. When your rubber boots don't go on easily, things don't start off really well. That can make for a bad start for the day. Silicone spray to the rescue. If you'll put a couple of squirts of Silicone spray down each rubber boot, they go on slicker than a whistle . . . and the day is started off really fine.

I had 8 interns in practice. They were from Tennessee, Auburn, and Iowa State. One of the things I told them was that they needed to brush their boots with disinfectant after every call. It's a good practice builder. Clients remember that you are conscious of cleanliness. If it gets to be part of your routine, it doesn't seem like it takes any longer.

I wear a 7½ boot, so I can put my foot down to the bottom of my bucket when I brush my boots. One veterinarian I had working for me told me that if I expected him to put his foot down to the bottom of his bucket to brush his boots after each call, he would have to carry a stock tank in the back of his pickup.

I wore running shoes inside of my boots in practice. They're light, and good for your feet. If you get manure, urine or something else down in them, you can put them in the washing machine and switch to another pair. Also, you don't ruin a good leather boot.

If a cow steals your lariat rope, it's kind of unfair, because she doesn't know that when you kick off your rubber boots, it reveals track shoes. A cow can't run forever, and I can actually remember two that I ran down. That'll keep you in shape, but sometimes it takes a little while.

Let's look at this slide. I'll have to apologize for it. You can take photos with a 35 mm camera, and if you want to change to another type of film, just rewind the film without letting the end disappear into the canister. Write the number the counter was on, on a piece of tape on the outside. After using up the second roll of film, just put the original one back in. Keeping the lens covered, snap pictures until you reach the number on the tape. Take a couple more, and remove the lens to finish the roll.

Obviously I didn't count right, because this is a picture of our Boy Scout Troop on a snow campout superimposed over a photo of my hands. What I want to show is the split on my finger at the base of the fingernail. These hurt like crazy, especially when you catch them on the seam of your pants when you put your hand in and out of your pocket.

The way to cure this is super glue. Just put a drop on the split. It is an instant scab when it dries. It holds the sides from moving, so there is no more pain. It'll work.

This slide of an electro-ejaculator. I ended up not

using it very much in practice, because my dairy clients bred most of their cows AI. I think it was at one of these AABP meetings that I heard that you could use your electro-ejaculator for teat surgery in cows.

You can stick that probe into the rectum and give her a little tingle, and she'll stand just like a stone Indian. Then you can infiltrate the sides of the laceration and suture her up.

Sometimes you get one that bucks like crazy when you turn on the juice. The first thing to do when this happens is cut off the power. If you don't and you reach up there to grab that wire, you'll probably have a hard time pulling the probe out of her rectum, because with the power still on, she'll be pretty well smacked shut back there, trying to maintain the integrity of her anal sphincter as she goes out through the lot. So, watch out for that.

Back to the teat surgery. After you trim the edges of the wound, and trim the lining back a little, we closed these with horizontal mattress sutures. This works fine until milk pressure builds up in the teat, and she starts leaking between the sutures. If you'll put a layer of super glue along the raw edges of that horizontal mattress suture line when you finish the procedure, you will do a lot to slow down leaking later on.

Now, let me caution you. **DON'T BE TOO QUICK TO CHECK THAT SUTURE LINE TO SEE IF THE GLUE IS DRY YET.** You may end up with your thumb stuck to the cow's teat. Everywhere she goes, you go! In this slide of me lying next to the cow, you can see that on a chilly night, a light blanket will keep you warm, if you lie next to her. It's not too bad. It's nice to have the farm dog to talk to, because everyone else has to go about their business. Life goes on. You can talk on the phone, continue personal hygiene by shaving, brushing your teeth, etc. You have to be careful what you choose to eat, because you can only use one hand. Sandwiches are handy. And . . . what could be more convenient when you want a fresh glass of milk than to have your thumb stuck to a cow's teat?

Super glue works really good, but don't be too anxious to check that suture line too quick.

A nylon treatment lariat rope is especially handy if it has a leather burner and honda knot tied in one end, and a quick release honda spliced in the other. If need be, you can rope serious with the leather burner end, but if you only need to pitch a loop over a heifer's head in a stall, you can use the quick release honda for easy release. Made out of nylon, it can be cleaned and disinfected thoroughly, won't rot, and is very strong. I have tied these for folks for years.

One of my main missions as the Head Extension Veterinarian for Tennessee is to promote the role that regular use of the local veterinarian can have in increasing profit in any livestock business. I tell them that "THE

KEY TO PROGNOSIS IS DIAGNOSIS.” This is one of the main thrusts of our producer education efforts. Another is Veterinary Extension Milking Schools. As you can see from this slide of a dairyman putting the milkers on a bull’s sack, there are still some people who need some instruction in their milking technique.

The last slide I want to show is of the formula for cattle wart vaccine that we had good success with in practice.

CATTLE WART VACCINE

2-3 warts in a baby food jar, cut up with scissors
q. s. with sterile saline or sterile water
refrigerate 3-4 days
add 1-2 drops of formalin
filter through a gauze pad into 100cc bottle
q. s. with sterile saline or sterile water
add 1-2 drops of food coloring
autoclave 15 minutes @ 270°
Dose: 20 cc SQ
10 cc SQ 10 days later

Appalachian Adaptations

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Let me begin by saying that I consider it a privilege to be here and it is very complimentary to be considered a bovine expert in several counties throughout the area. I must say that becoming a successful FEMALE bovine veterinarian has demanded a determination to beat the odds, accompanied with a love of the profession. Second, Purdue University must be credited toward providing me with a thorough education that has ensured the success of my bovine practice in eastern Kentucky. As a small child growing up in central Indiana, my parents were cattle owners. After the death of my father, my brothers and I continued the operation of the family Jersey dairy. Therefore, my exposure to cattle at such a young age created a determination to become involved in assisting farmers in the care of these interesting four legged animals. Therefore, many are to be credited to my success, my desire and my determination.

Just recently, I have read several articles that question the abilities of women that have chosen to specialize in bovine practice, especially small women. These

About three weeks after the second shot, the warts start to get hard, turn black, get smaller, and eventually drop off or disappear. When we had extra vaccine after making a batch, we would put it in a bottle in the refrigerator. When clients came in without bringing warts, we would dispense two doses of our grand mixture. By combining many strains in these bottles, we covered viruses causing warts in many cattle all across our practice area.

I see that my time is about all gone, so I would like to leave you with three thoughts . . .

1. You can whip cream, but you can't beat milk.
2. Ox in the ditch every Sunday. Sell the ox or fill up the ditch.
3. Remember, everywhere you go, there you are.

Thank you very much. Come see us in Sweetwater.

articles have questioned the capabilities of small women handling cattle properly when approached by an uncooperative patient. Well, let me ease your minds. I know from personal experience that a small female can become a successful bovine expert.

Due to the poor economic status of eastern Kentucky, the Appalachian coal fields, the application of treating a family pet as well as a food producing animal is rewarding, and trying. There are few cow/calf type operations on reclaimed strip jobs in this area. Usually, there are 10-50 heads of cattle turned loose on these reclaimed strip jobs. By educating the owners on nutrition and handling facilities, I learned that the care of these animals does improve. With an average of approximately 80 bushels of corn growth to an acre on the best soil, the production is reduced drastically after reclamation has taken place. Therefore, nutrition has developed into a problem for the cattle owners and their livestock. I frequently use handouts on how to build chutes and cow/calf programs. These handouts have