

restraint is the most important aspect of this procedure.

The places I see this technique to be of most benefit are in smaller dairy herds on a monthly herd health program. I'm sure a very adept owner could be taught to do this, but risks of self injection would need to be discussed. I have also used this technique in beef herds when they have only a small percentage of horned calves. It seems we are out at most of the beef herds every 4-6 weeks during calving season so dehorning these calves at a young age is convenient if they are in an area where they can be caught easily. I hesitate to

inject beef calves with Chem-Cast in the summer and then turn them out. I had one dairy calf develop a mild fly strike (1-2 larvae) under the scab in July of this year so now I spray some fly spray on the calves done in the summer and instruct the owner to check them closely at feeding time.

**I am going to continue to use Chem-Cast in this extra-label manner to dehorn some calves, but I will continue to look for an even better way to successfully dehorn baby calves.**

## Graphing DHIA Records to Help Motivate Dairy Clients

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Record keeping is not a favorite task of many of our clients. Our dairy producers on DHIA have the advantage over our other food animal clients of having a very valuable set of records generated monthly. The sad truth is that many dairymen spend a few minutes at most reviewing these records. Most, roughly know their reproductive and production figures, but only roughly, and many do not know if they have progressed or regressed over the past 6 months.

My way of becoming more involved in their herd's production and reproductive efficiency was by studying the herd summary sheet (the yellow sheet on Iowa DHIA) before and after each herd health visit. I then take this copy back to the office to graph out the selected data. After about 4-6 months, I can begin to see some trends where we are improving and where we need more improvement. I use the graphs not only to motivate clients, but also to spot problems early so that immediate action can be taken. The data I graph out is days open, first service conception rate, services per conception, days to first breeding, freshening interval, milk and fat production, and income over cost.

I started the graphs primarily due to one client that was, in my opinion, on the verge of folding. It was a typical, small, "family farm" type of herd where I not only became their veterinarian but also their friend. I suppose this was my way of doing a little extra to try to help them improve. This

particular owner was so excited about this progress once we started the graphs that he always had his records spread out on the counter as I came in the milk house so I could immediately see his improvement over the previous month. This is what convinced me to use graphs for my other herd health clients.

**We started on a herd health program in September 1983 and improvements have been made in all phases of his production and reproduction. In fact, this herd was one of the most improved in our county with an increase in milk production of nearly 3000 pounds per cow in one year.**

When the records were copied and sent to the owner in December 1985, the owner took them along to show his banker, and loans that were difficult to secure in 1983 were now much easier to obtain. These records in graph form were easy for the banker to read and understand, and he was impressed with the owner's progress.

**It takes very little time to do this extra work for my herd health clients, and I think it is well worth the effort. It has allowed me to be much more involved in all aspects of these dairy herds. We anticipate purchasing a computer and programming it to do our herd health records for us. I encourage any of you with dairy herd health clients to graph their most important DHIA data to help them spot problems early and initiate appropriate action.**

## Chain Tie Downs

**Roland S. Jeans, D.V.M.**  
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This is a four-foot piece of welded link chain. It has a grab hook on each end and it is used for a number of different purposes. The main purpose that I use it for is treating cows in tie stalls with milk fever, ketosis, mastitis, or any intravenous

injection that I want to give. The top drapes over the cow's neck. One end loops around each side of the stanchion bar, and you tie the animal up with a halter and that is it. They can't come over the top of the stanchion on you. They can't

pull back and get their head back over the pipe so that it shuts off the vein and you can't run a solution. That's my favorite use for it. Another is when you get into a stanchion barn and the stanchion looks like it's a threat to your life when you are down in front of the cow! You can loop this around the top of the stanchion in the stanchion bar once or twice and you think you are safe. You can do it to the bottom. More often the bottom rusts off and the cow is standing there with the bottom swinging free. You tie this over the post and around the stanchion and it holds it in place so she can't twist around and come on you if you pull her head the other way. The other thing this will work on, if you're using a come-along and you've got an open beam at the top, you can hook this over the top of the beam and hook your come-along on to the bottom. You can put it around the post and hook your come-along on if you're going across the barn to pull a down cow out and across the gutter, you can use that on the bar. You can use it to steer your chute to the barn door when you are dehorning heifers. It loops around the post. Most of the doorways have a crack in the barn that you can get this through and hook it around the chute and the doorpost and

that holds your chute from sliding away when they get in. A few of my clients have these in the barn and have it handy. When they have tie stalls they use it themselves for clipping heads for fitting and showing, for clipping heads for classifying cows. For some of these tough ones that don't react to the clippers too well, they just put these around over the top of their neck and they don't have to have a special stanchion for clipping cows and clipping heads.

The other tip I have is just a rope halter with a knot tied in it. This is a modification that you put the halter on a cow and you've got this knot tied just a little ways from the loop. You can use it for a pulley. You thread this around the stanchion bar and back and you pull it up. You have a built in pulley! You can secure the cow by yourself. If you have a downer cow, put this underneath the base of the tail and tie it. You can hold the cow without her tipping over on you. You can put it on her leg if she tips over. I've been in a few panic situations where the cow's head is tipped underneath the cow. If this is around the base of the tail, you can always get at the loose end of your rope and untie it.

## Bovine Practice

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What I want to talk about is something just entirely away from the usual practice tip. It may do you some good. It's a nutritional practice tip. I want to talk about cobalt and the clinical evaluation of cobalt levels, and why you should look at them.

Cobalt deficiencies primarily relate to vitamin B<sup>12</sup> deficiencies with anemia and unthriftiness, but most importantly, if you do have a cobalt deficiency in a herd, that you are clinically going to see a lot more cases of Johne's disease in these herds. Also high producers tend to have more cases of ketosis. Cobalt is a necessary precursor of B<sup>12</sup> which is a coenzyme involved in the metabolism of propionate, so there are some benefits as far as the ketosis problem, with cobalt.

The next thing that I want to mention is that cobalt is extremely hard to analyze in the laboratory. Clinical deficiencies in cows usually occur at about 0.1 parts per billion. Most labs cannot analyze cobalt levels at these levels in liver or serum, so the big problem is to find a lab that can do it. I have spent quite a bit of time trying to figure this out and I think there is an easier way to deal with it. I want to give you a little background on the method of determining it, if you need to look at cobalt levels.

When soil pH is above 6.7, plant uptake of cobalt decreases and so anytime we are talking about alkaline soils

it is likely that the forages are going to be low in cobalt. An interesting thing that happens also with this same condition in the soil is when pH is above 6.7 the uptake of molybdenum increases and so an easy way to evaluate if your forages are low on cobalt is to look at the molybdenum status of the forages. If molybdenum levels are higher than expected, you will usually benefit from cobalt supplementation. The normal molybdenum threshold level to be concerned about, is at 1.5 parts per million and generally in Ohio I see areas with molybdenum levels in the forages at 3-4 ppm and there has been an instance or two where I have seen molybdenum levels at 10 or 12 ppm. The interesting thing is that if you do see these molybdenum levels that are higher, you are also going to see a secondary copper deficiency. If you're seeing herds with copper deficiencies, they are due to unavailability of molybdenum, or unavailability of copper due to molybdenum, then you are likely to have a cobalt deficiency with it and you will benefit from supplementing cobalt as well as copper. So, analyze molybdenum levels, if they are higher than expected, you likely will benefit from cobalt supplementation. It will mean fewer clinical cases of Johne's disease in the herd and my experience is in these herds that are fine tuning the rations, you will benefit in production of 1,000 or 1,500 pounds on the rolling herd average.