

Panel Discussion

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Question: Do you ever drench any calves orally with electrolytes?

Dr. Ward: Well, basically, the calves that we see and the ones that are presented to us are the severely dehydrated ones. The ones that aren't so badly dehydrated, of course, should use the recommended procedure that they use at home, and this many times involves an oral drench. We like the apparatus with an artificial feeder. It has a plastic bag and you can administer fluids this way to the calf, along with the medication. The ones that are just beginning to dehydrate will respond most of the time.

Question: What kind of treatment do you send these calves home on?

Dr. Ward: We usually keep our calves 24 to 48 hours. I think it is very important to give the calf some TLC after getting him home. Basically, I have the owner milk the cow if at all possible, completely. As far as antibiotics go, we use very little. We like for the calf to have access to a stream or some type of water and see how he gets along. Watch him real close so that if necessary you can give him some oral fluids. Periodically, we'll send him home with some liquid calf scour medicine.

Dr. Edwards: Our procedure is not very different. We hope to have this calf in good enough shape when we send him home that he is going to respond to just some tender loving care. The worst problem we have, seemingly, is the ones that go home and the cow hasn't been milked out and he gets overloaded with milk. These are the most difficult ones to handle. We don't put them on antibiotics.

Question: I have always been under the impression that we usually had quite a bit of lung involvement of some sort along with the calf scours. I have always thought that we did need an antibiotic, not necessarily for the scours, but for the pneumonia.

Dr. Edwards: Well, in our practice, the calf with the scour complex very rarely has pneumonia. We see very little. Last spring I had a herd with about 200 cows in the herd, and about 50 first calf heifers. We started losing calves and at that time we had a very severe pneumonia in these calves. We lost a few. Our biggest problem here was a pneumonia and scour complex. I ran some blood counts and most of them showed a tremendous drop in the white cell count. I did not think that it was a bacterial pneumonia, it might have been

secondary, but at the time we tried about everything on those calves. We used antibiotics, I even used Nasalgen^R. I took some serum samples in order to see if we had an IBR, PI₃, BVD infection or something. All the calves that I took the serum from died. My client lost about 25 calves out of the 50 heifers. Most of our pneumonia in calves is a little later on in life, maybe at branding time, if the weather conditions are just right, either heat or dust or cold.

Answer: In the beef herds we see very little pneumonia. The problem we have is with dairy calves that have been brought in. They will have some pneumonia complications. On these we use antibiotic therapy.

Dr. Radostits: Let me congratulate Dr. Edwards on his excellent paper. I am glad that someone else besides myself can now speak on this subject. My questions to you are—What observations and interpretations have you made about the cause or causes of diarrhea in the beef herds you have worked with? Secondly, what do you recommend to your owners with respect to the clinical management of calf scours?

Dr. Edwards: First of all, as far as the causes are concerned, we have cultured many of our cases. As a matter of fact, we start at the beginning of the season to culture all of them. This does not work if you get overloaded. About 90-92% of them will run *E. coli*'s. This isn't saying that it is the logical agent. This is the organism that we are culturing. We have a few *Proteus*, but the bulk of them will be *E. coli*. Many of these appear sporadically, and it seems that they will start in the heifers and then spread to the cows. It does look like an infectious agent. The biggest agent that I could think of in our country is the weather. When we have real bad spring, late spring storms, we can just as well move in some cages and prepare to get in a lot of calves, because we are going to see a lot of sick calves within the next few days. However, if the weather stays pretty favorable throughout the calving period and they don't have any breaks, they will get along pretty well. Now as far as management is concerned, this is directed right along, of course, with the idea of calving the heifers ahead of the cows, being very cautious as far as contamination. If you do run into a problem, move to another area. This usually does not completely solve it. Many times anything you do might be of benefit and you have to try something; but if we have a lot

in one area, we do try moving out of that area. Watch their nutrition very closely. Watch the management, be sure to watch these calves early. Do not wait until the heifer's bag is tight before you realize that the calf is not nursing.

Question: What kind of results did you have with the scour vaccine, if you used it?

Dr. Edwards: This would be part of the data that Dr. Twiehaus presented. Many of these herds have used scour-vax vaccine, Scour-Vax Rheo. To date, it is a little bit early to say, as far as I am concerned. It seems we have a problem in one particular herd one year and we don't use anything a lot different; we try to treat the calves, get them through their problem and next year they do not have the problem. Now some of these herds I am sure, have had some of these viruses show up and, of course, they are probably building up from their own immunity. Seven herds, I believe, in our area have been using this Rheo vaccine. The results have been quite variable. It will be interesting to see how this cow vaccine works out.

Question: Have you made any observation as to the value of any MLV vaccines in your herds?

Dr. Ward: Well, first of all, I refuse to answer the question about Scour-Vax because I will take the fifth amendment! As you all know, Montana is the only state that does not allow the use of this vaccine.

A number of years ago, when we first started working on this problem, everybody came up with the idea that it was BVD, which is grasping straws! For a number of years I have used IBR vaccine. I use it on all the replacement heifers at weaning time, prior to, or after. In my practice area, I recommend it. We studied IBR and BVD titres on these cows and we found out that we had many more BVD titres than IBR, which is rather amazing to some of my colleagues in the area because we see very little clinical BVD. With this thought in mind, we began to eliminate, or help them to eliminate this possibility. We have used IBR-BVD vaccine on our replacement heifers, between 2 to 3 weeks prior to breeding even if they have had IBR-BVD vaccine the previous fall. We vaccinate total cow herds yearly. I think this is a waste of vaccine, for one or two doses of it will produce a lifetime of immunity. So far, with our observation, we have found that the vaccine has no effects on the incidence of the disease.

Question: Does either gentleman ever use steroids to combat shock?

Answer: As far as the treatment of so-called calf scours, diarrhea, etc., is concerned, my results have not improved too much in the last ten years. I did use, prior to some of these findings, a lot of steroids and I thought I was getting quite a response.

Answer: Steroids made very little difference.