

## LONG HAUL COLOSTRUM DEPRIVED CALVES

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**Russ Schnepfer, DVM**  
Schnepfer International, Inc.  
Platteville, WI

A major part of my life's work has been dealing with colostrum deprived calves, both from a Veterinarian's standpoint and as a calf raiser. A person learns faster when they use their own money. I have been preaching colostrum management for more than 30 years that I have been running total proteins. I must not be very convincing, as the results now are identical to the ones obtained 30 years ago. It doesn't make a difference, rather, they are sale barn calves or picked up direct from a dairy. All the dairies swear the calf received colostrum. However, I am talking about bull calves, and I believe some dairies do not feel bull calves are worthy of the colostrum. One third of the calves have received adequate colostrum, one third have received a little colostrum, and one third have received none. We have been able to consistently raise these calves with a 3% to 5% death loss. We also have a few excellent raisers that average 1% death loss on sale barn calves.

It is impossible for me to lay out a program that is going to work for everyone. I have worked with raisers that appear to do everything wrong and still raise a good calf. I look at those situations and try to determine what they are doing right that I can apply to others. I also have short term raisers that could have the best facilities, the best milk, the best health program, and the best calf and they would still kill most of the calves. As some present me with their "successful" treatment that is obviously detrimental, I remind them "the calf is very tough, and some will live in spite of what you and I may do to them,"

***This is a program designed to cover the majority of the problems that are likely to be present in the sale barn calves.***

1. Buy a calf that is less than a week of age. I believe the calf is born with a functioning adrenal gland and it stops working about day eight and does not become functional again until day 28. The calf can't handle stress as well during that period. Do nothing stressfully to the calf between eight and 28 days of age.
2. Place the calf in a facility that will be all in and all out. Hutches are best. Barns can be used as long as you fill the barn in less than a week and move them all out before coming back in with new calves.
3. Do everything stressful to the calf the first day. I am referring to situations that make adrenalin flow. The calf has been moved from his happy home, trucked, and placed in a different facility. The adrenalin is flowing and I do not feel it will flow any more regardless of what you do to the calf. Whereas if you wait until the next day to work the calf the adrenalin will flow again. If using MLV, we are not very concerned with immunity, but primarily interferon..

4. Feed an all milk protein milk replacer, especially for the first three weeks. Alternate proteins such as; egg, wheat, or soy can be used after three weeks.

### **Day One**

1. Castrate bulls with a knife. (My studies show a 10# heavier calf at weaning more than one castrated with a rubber band.)
2. Inject 1 ml Immunoboost subcutaneously (I find it effective against E. coli, Salmonella, Rota and Corona virus). The interferon effect lasts for seven days. Prior to four years ago, I used modified live virus vaccines, both intranasal and IM, for the interferon effect. But Immunoboost does in many times better.
3. Inject 1 ml Endovac bovi (vaccine for Gram negative endotoxins, produced by E. coli, Salmonella, Pasteurella, and Moraxella bovis, which causes pink eye)
4. Inject 3 ml BoSe (selenium & Vitamin E)
5. Feed 50 mg of decoquinatate twice daily for 10 to 14 days. Decoquinatate is not soluble and in most cases has to be individually dosed.
6. If an antibacterial is desired, use a sulfa for the first week.

### **Day Eight**

1. Inject 2<sup>nd</sup> 1 ml dose of Immunoboost
2. Inject 2<sup>nd</sup> 1 ml dose of Endovac bovi
3. Inject a Modified Live Virus vaccine (earlier I had deleted the MLV if using Immunoboost for the interferon, however we had more respiratory problems at three to six weeks). We want to get immunity with this injection, not just interferon. The Immunoboost, administered at the same time as the vaccines, enhances the immune responses.
4. Pour with BOSS - one time louse treatment

### **Day Thirty**

1. Inject 4 ml BoSe
2. Vaccinate for Pasteurella multocida and Mannheimia haemolytica

## **Day of Moving from Individual to Group Pens**

1. Inject a Modified Live Virus vaccine

## **Ten to Twelve Days after Grouping**

1. Inject a repeat dose of Modified Live Virus vaccine, as used day of moving.

## **Clostridials**

Neither Clostridium C & D Toxoid nor injected C & D Antitoxins have been effective in our calf operations. When injected, the result is circulating antibodies and they never get into the lumen of the gut. Oral penicillin and/or oral C & D Antitoxin are effective in treating enterotoxemia. The enterotoxemia scenario is, first there is an acidosis, then blood seeps into the lumen of the gut, the blood loving clostridia, which are normal inhabitants of the gut, multiply rapidly, producing toxins that kill the calf.

## **Sarcinia**

Sarcinia has been isolated from some of the calves submitted to diagnostic labs. It is not clear to me if sarcinia is a true pathogen in the abomasum or it is going along with the clostridia. Dr. Nydam, of Cornell, convinced me the sarcinia is a normal inhabitant of the rumen and is not supposed to be in the abomasum. But it does get into the abomasum and intestine with resulting bloats. Treat the sarcinia as though it were a clostridia.

## **Scours**

Treat scours with water and electrolytes. Regardless of the cause of the scours, if you put the fluids in the front end of the calf faster than it comes out the back end, you win. Do not put the electrolytes in the milk. Do not take the milk away. However, if the calf refuses to eat, I do not tube the milk. He may be better off to skip a feeding. Force feeding would be like shoving a steak down you when you have a stomach flu. Calves that are "water logged" or have what I call "slushy guts" do not need more fluids orally. Go with your IV's, lactated ringers, saline, etc. If you do not have access to blood chemistries, I do not give more than one lactated ringers IV at one time. Most calf raisers give the ringers subcutaneously. If the calves have been on Immunoboost and decoquinat and a scour develops, Epic has been very effective. One scoop of Epic twice a day, and three to four treatments usually stop the scours.

## **Danish Calf Feeder**

Use a probe with a small end, as the Danish Calf Feeder. The large knobs on some probes cause trauma and hemorrhage that outweigh the benefits of medicating. The calf feeder uses disposable bags and the probe is easy to clean.

***The person feeding and caring for the calves is the most important*** element in a calf program. A good feeder can make the Veterinarian look good. Women are usually best. However, I do work with a few good men.