



Management of Young Calves for the Small Scale Hobbyist

Part 3: Calf Scours

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Dealing with Calf Scours

Scours, commonly called diarrhea, is a common problem of young calves. It is defined as a case of diarrhea which requires any intervention for more than 24 hours. Target rates are <25% within the first 60 days of age and less than 2% after that. Scours are commonly caused by bacteria called *E. Coli* and *Salmonella* (Heinrichs). It can also be caused by viruses. The former respond to antibiotics and the later do not. The disease appears similar on observation. The biggest problem with scours is that the calves lose body water through the feces and dehydrate rapidly causing them to be weak and possibly dying. Signs of dehydration can be sunken eyes (Quigley, 1998) and skin that “tents.” Tenting means that if you grasp a fold of skin between your fingers and then let go, it will “tent” or stay elevated for an extended period.

Treatment – There are three main objectives when treating a calf for bacteria scours:

1. Control bacteria with antibiotics.
2. Lower the intake of milk solids to reduce the food available for bacteria to live on in the gut.
3. Maintain the calf’s fluid intake (McGuirk, 2011) by feeding electrolytes to provide ions which help retain fluids in the body. This will counteract some of the dehydration caused by scours. A sign of dehydration is sunken eyes.

The tendency often is to give a sick calf a lot of medication with the hope that something will work. However, this is not an appropriate way to proceed because too many drugs may cause other problems and you won’t know what worked if the calf recovers. It is

important to develop a treatment plan with a veterinarian.

Here are some suggestions of practices which have been used successfully:

1. When scours first occur, cut the amount of milk replacer solids to about half while using the usual amount of water. Administer recommended scour medications and antibiotics. Don’t wait thinking that the calf will “snap out of it.” The earlier you can treat the animal, the greater are the chances of its recovery.
2. If the condition persists for 2 or 3 days or worsens, take away all milk replacer and feed only an electrolyte solution for 1 or 2 days. Two formulas are given at the end of this section.
3. After 1 or 2 days on electrolytes, gradually return the calf to the regular feed. However, mix the milk replacer with the electrolyte solution instead of with water. Do this for 2 or 3 days to build up the fluids in the calf.
4. Don’t try to handle severe cases of scours (especially those caused by *Salmonella*) by yourself. Get the help of your veterinarian.

Prevention is the best practice against scours and other diseases. The following sanitary practices will help you be proactive in prevention.

1. Wash calf buckets with hot soapy water and sanitize them with a chlorine solution after each feeding.
2. Assign each calf its own individual pail.
3. Clean or bed your calf stalls often to keep them dry and, if kept indoors, keep floors and walls clean.

4. Wash your hands between treating calves to prevent the spread of disease. Remember that you can be the vector for spreading disease.

Sample Electrolyte Formulas

Formula 1

Dextrose (sugar) (white corn syrup)
8 tablespoons
Salt
2 teaspoons
Baking soda or sodium bicarbonate
1 teaspoon
Warm water to
1 gallon

This is fed at the rate of 1 pound per 10 pounds of body weight. So a 90 lb calf might receive 2.5 pounds of electrolyte solution 4 times a day. Gator-Ade is a soft drink which contains electrolytes and may be given at a rate of 1 quart per feeding in a nipple pail to scouring calves, but is expensive when used for this purpose.

Formula 2

1. Prepare this premix:
Salt (NaCl)
4 ounces
Potassium chloride (KCl)
5 ounces
Sodium bicarbonate (NaHCO₃)
5.5 ounces

Potassium monobasic phosphate (KH₂PO₄)
4.5 ounces

2. Add 1 ounce of the above mixture plus 0.5 lb of dextrose to 1 gallon warm water. Feed 2 to 3 pounds of this solution 4 times a day.

Formula 3

Buy a prepackaged electrolyte mix from a reputable feed company. There are several good ones on the market and are convenient to use, but they can be expensive, so you need to make a judgment call.

References

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