

Livestock Notes

PREVENTION AND TREATMENT OF INFECTIOUS CALF SCOURS

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Preventive measures

1. Place cows in small groups (10 to 25) well before calving begins. Avoid moving cows between groups and using the same area for different groups. Avoid concentration of numbers and overcrowding.

2. Calve outside on protected, well-drained, clean sod, if available. Barns and small crowded lots are the most likely places for heavy contamination with scour organisms.

3. If you must use a barn, keep the area clean and dry.

4. Assist calf to nurse, or provide with colostrum as soon after birth as possible (within 15 minutes of birth is best). A calf is born with little specific immunity. Most of its protection is derived from antibodies in colostrum, but calves rapidly lose the ability to absorb antibodies. Keep a supply of frozen colostrum for emergency use when calf is too weak to nurse, or when the mother has no milk or refuses to allow nursing.

5. Treat the navel and cord stump by dipping in strong iodine solution or tincture of iodine as soon after birth as possible. Other commercial products may be as good as iodine, but none are better or cheaper. Aerosols and sprays do a very poor job of disinfecting the navel.

6. If hand feeding is necessary, do not overfeed calves. A calf's total daily milk requirement is 10 percent of its weight (1 pint per 10 pounds). Divide this amount among at least two to three feed-

ings the first day of life.

7. Avoid using antibiotics routinely at birth to prevent scours, unless it is a specific antibiotic known to be effective against a specific organism and prescribed for such use by a veterinarian.

8. Observe calves frequently and closely for signs of scours. A full udder is often an early sign of a sick calf. Start full course of treatment immediately. Identify calf for retreatment.

9. With multiple cow-calf groups, always feed and handle group(s) with scours last to prevent carrying disease to healthy groups.

10. Vaccinate your cow herd for IBR and BVD, and maintain vaccination with replacement heifers.

11. Use reo-virus vaccine routinely if this type scours is known to be present.

Treatment

To minimize losses both from death and slowed weight gain, it is imperative that proper treatment be administered immediately when a calf is first noticed scouring. Two types of scours occur: very sudden, severe scours in newborn calves during their first week of life, and a less severe form in older calves. The approach to treating these types differs.

Scours in newborn calves is extremely watery, resulting in severe dehydration and body mineral loss within 24 hours of onset. Affected calves become very dull, often refuse to or cannot get up, and generally refuse to nurse even when assisted. Many of these calves will die within 12 to 36 hours without treatment. It is likely that much of this type scours is caused by the "reo" type virus for which an effective vaccine is available. If this type of scours occurs in your herd, it is highly

recommended that you begin vaccinating calves at birth. Contact a practicing veterinarian to get this vaccine. A combination vaccine against both the reo and corona viruses has also been developed.

Treatment of newborn calves with scours can markedly reduce deaths. The objectives of treatment are to stop the scouring by interrupting the infection, to replace the electrolytes lost, and to promote healing of the intestine. Treatment consists of selectively using some or all of the following, as needed:

1. Oral antibiotic to prevent and control secondary bacterial infection.

2. Oral administration of specific drugs to slow the gut and reduce diarrhea to minimize fluid and mineral loss.

3. Oral administration of fluids and minerals to correct dehydration and mineral imbalance (Acidosis).

4. Withholding milk (but not fluids) for 24 to 36 hours to rest the gut and allow healing of damaged tissue to begin. Such starvation must be done early in the course of scours and accompanied by administration of fluids and minerals, either orally or otherwise.

5. Administration of minerals and fluids intravenously, under the skin or into the body cavity, to replace these materials lost through scouring.

6. Administration of nutrients — sugar, protein, vitamins and minerals — intravenously, under the skin, or into the body cavity to maintain the calf's strength, aid its ability to overcome the virus infection, and repair the gut.

7. Supplying heat to maintain body temperature between 100.5°F and 102°F.

8. Systemic antibiotic to help control blood infections.

All these drugs and nutritional supplements are locally available, although some are available only from veterinarians. The process of administration requires judgment and experience, but it can be done

RECOMMENDED ELECTROLYTE MIXES FOR FLUID THERAPY

Mixes that can be made from household ingredients

Formula #1 (to be given orally)

8 Tbsp. White corn syrup (dextrose)
2 tsp. Salt (sodium chloride)
1 tsp. Baking soda (sodium bicarbonate)
1 gal. Warm water

► Feed 2½ pints to a 90 lb. calf four times/day (total of 1 1/4 gal).

Formula #2 (to be given orally)

1 can Condensed beef consommé
3 cans warm water
1 Tbsp Baking soda

► Feed twice a day.

Mixes that can be made from a drugstore's ingredients

Formula #3 (to be given orally)

4 oz. Sodium chloride
5 oz. Potassium chloride
5½ oz. Sodium bicarbonate
4¼ oz. Potassium monobasic phosphate

Add 1 oz. of above mix plus ½ lb. of dextrose to 1 gal warm water.

► Feed 2-3 qts of this solution four times/day (total of 2-3 gal).

Formula #4 (to be given either orally or intravenously)

1 Tbsp. Sodium bicarbonate
100 cc 50% dextrose solution
900 cc Warm water

► Give 1 to 2 liters (quarts) four times/day (total of 1-2 gal).

by producers if adequate explanation, demonstration, and guidance are provided by a veterinarian. Local veterinary practitioners have already successfully assisted many producers. Give it a try. It's worth it. But remember to get help immediately when scours first appear.

Although scours in older calves (one week of age and older) is usually less severe, it still requires immediate treatment with oral antibiotics to minimize loss. There are several oral antibiotic preparations locally available and many more from practicing veterina-

rians. No one preparation is best in all cases or in all herds. The best approach is to use the product which has worked best for you in the past. If it fails to produce good results this year, change to another antibiotic (preferably in consultation with a veterinarian to select the most effective product).

Far too many calves are treated for too short a time. The scours may seem to improve with only one treatment, only to recur a few days later. Or it doesn't recur but the calf continues to do poorly. A good rule of thumb is to continue treatment for one to two days after the episode has cleared up.

If the scours does not improve markedly within 48 to 72 hours of treatment, change to another antibiotic product immediately. A drug to slow the gut would be strongly indicated at this point. Such drugs are available only through veterinarians, and all local practitioners have them.

If the calf becomes dehydrated, dull, lies around, and shows poor appetite after a day or two of scouring, then nutritional and replacement treatment as outlined for scours in the newborn calf is strongly indicated.

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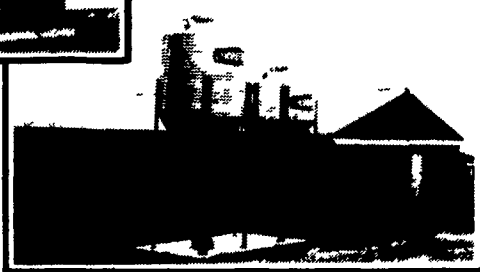


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