

Introduction

Calf scour the common term for neonatal calf diarrhea, is one of the most common causes of financial loss in large ruminants. Although it may be caused by different pathogens including viruses, *E. coli* is one of the most common causes of neonatal diarrhea in mithun. Regardless of the cause, diarrhea prevents the absorption of fluids from the intestines and if left untreated death from scours results from dehydration, acidosis, and loss of electrolytes.

E. coli are Gram negative bacteria, which are the normal inhabitants of the large intestine. Calf scour is mainly caused by a type of *E. coli* known as the enterotoxigenic *E. coli* (ETEC).



Predisposing Factors

Any external factor affecting dam's health and hygiene is crucial for health of the calf.

1. **Lack of Nutrition:** Insufficient feeding of pregnant animals especially during the last stage of pregnancy and any deficiency in vitamins and minerals may greatly affect the quality of colostrum.
2. **Unhygienic practice:** Muddy floor, wet and soiled bedding materials, overcrowding, chilled environment may predispose the calf to infection due to stress.
3. **Improper care of newborn calves:** Under semi-intensive mithun farming system failure to attend the newborn calf may leave the calf vulnerable to other complicated problems especially in times of difficulty in delivery. Lack of feeding of colostrum may lead to immune-incompetence.



Clinical Signs and Symptoms

1. Calf infected early after birth (within 48 hrs), may be found dead without any apparent signs.
2. Watery stools that may be brown, grey, green, yellow in color.
3. Calves become weak and depressed, and may lose their desire to nurse.
4. Swaying while standing and in-coordination.
5. Dehydration may lead to sunken-eyed appearance. More prominent ribs, hips and shoulder joints.
6. If left untreated, death typically occurs within 24 hours.
7. Depending on the cause(s) and the severity of the infection, a case of scour in a calf can last 1-2 days or as long as 2 weeks.



Prevention and Control

1. Colostrum feeding is of utmost importance to prevent the onset of scour as the calves are generally born without any antibody; colostrum is the only source of immunity in young mithun calves. Preferably, new born calves should receive colostrums within 12 hrs.
2. Bottle feeding of calves as shown in picture below. Assist newborn calves to suckle if required.
3. Good hygienic practice can prevent the animals from germs. The bedding material and the premises should be clean and dry.
4. Disinfection of farm premises and workers.
5. It is better to house animals of different age group separately.
6. Provide bedding and shelter to prevent cold stress.
7. Utmost care and precautions to be taken following biosecurity measures.



8. Oral administration of fluids and electrolyte to the sick animals. If the calves are too weak, intravenous administration may be required.
9. Antibiotics may be administered-for this, veterinarian may be consulted (do not use antibiotics without proper prescription).

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MANAGEMENT OF CALF SCOUR (COLIBACILLOSIS) IN MITHUN



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