



## Best Practices for Youngstock Fluid Therapy

### Guidelines for Assessment of Hydration Status in Calves with Diarrhea

Dehydration	Demeanor	Eyeball Recession	Skin Tent Duration (sec)	Fluid Therapy
<5%	Normal	None	<1	Oral
6%-8% (Mild)	Slightly depressed	2-4 mm	1-2	Oral
8%-10% (Moderate)	Depressed	4-6 mm	2-5	Intravenous
10%-12% (Severe)	Comatose—responsive	6-8 mm	5-10	Intravenous
12%	Comatose—unresponsive	8-12 mm	>10	Intravenous
>12%	Dead			

Source: Adapted from G.W. Smith Veterinary Clinics of North America Food Animal 25 (2008) 55-72 and M.A. Wattiaux (2005)

### Providing Fluid Therapy with Esophageal Tube

Diarrhea, or scours, accounts for between 50 to 75 percent of deaths in calves less than three weeks of age. Scours does not usually kill the calf. Rather, the calf will succumb from the dehydration and electrolyte imbalances which follow. Early identification of affected calves and early and aggressive treatment with fluids and electrolytes is the most successful way to treat scouring calves.



**Step 1:** Properly restrain the calf by backing the calf into a corner, or hold against a wall or fence.



**Step 2:** Determine how much of the tube should be inserted by measuring from the tip of the calf's nose to the point of shoulder. In general, you will only pass ~ 45 to 50 cm (18 to 20 in) through the mouth.



**Step 3:** To open the calf's mouth, gently apply pressure to its gum with your fingers. Insert tube along the tongue, which will cause the calf to swallow. Pass the tube down the esophagus.



**Step 3a:** The end of the tube is large enough not to fit in the trachea. When positioned correctly, you can feel the tube feeder in the enlarged, smooth esophagus along the side of the neck.



**Step 4:** Attach the bag to the tube or release the clamp to dispense the electrolyte. Once the bag is empty, slowly remove the tube.



# Best Practices for Health Management

## Protocol for Daily Monitoring of Youngstock for Disease

### Find Sick Calves

Check each calf at feeding for:

1. Abnormal appearance (dull, depressed, weak or unwilling to stand, ears or head down, sunken eyes)
2. Decreased appetite (unwilling to drink or drinks less than normal, weak suckle effort)
3. Abnormal feces (scours)

### Exam Sick Calves

1. Rectal temperature (normal for a calf is 38.6°C to 39.4°C (101.5°F to 103°F))
2. Abnormal feces (scours)
3. Hydration status:
  - a. Normal: eyes bright and not sunk, moist mouth
  - b. Mild dehydration: eyes mildly sunken in, moist mouth
  - c. Moderate to Severe dehydration: sunken eyes, dry mouth, cold extremities, not sucking
4. Breathing: respiration and effort

### Scours

#### Mildly dehydrated:

- Oral electrolytes 2x per day between feedings for 2 to 3 days or as directed by a veterinarian

#### Moderate to Severely dehydrated:

- Requires veterinarian attention for:
  - Intravenous fluids
  - Antibiotic treatment
  - Anti-inflammatory treatment

### Pneumonia

- Increased respiration rate and effort
- May be cough, runny nasal discharge
- Elevated rectal temperature (greater than 38.4°C)

#### Mild:

- Antibiotic therapy as directed by a veterinarian
- #### Moderate to Severe:
- Requires veterinarian attention for:
    - Antibiotic treatment
    - Anti-inflammatory treatment

### Other

Seek  
veterinary  
attention