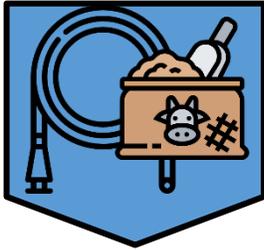


Using an Esophageal Tube Feeder for a Beef Calf

A Guide for Beef Cattle Producers



When should a tube feeder be used?

- If the calf is unable to suckle colostrum from the dam or a bottle.
- To take care of sick calves that are unable to drink or eat, e.g., scouring calves.

General Precautions

- Do not tube feed a calf that exhibits extreme weakness and an inability to swallow, i.e., calves that cannot lift their head or have no suckling reflex at all.
- Do not attempt to tube feed non-responsive calves as the risk for fluids entering the lungs is high.
- Proper training is required to complete this process. Have an experienced person show you before you attempt this yourself. Refreshers are available on YouTube (see Resources below).
- Esophageal tube feeders can injure or kill the animal if used improperly, but when properly done, the benefits are significant.



Image 1: Coburn CF85 Oral Calf feeder

Required Materials

(*indicates specific products provided at the workshop)

Calf Esophageal or Tube Feeder

There are several designs and models. Here is list of calf tube feeders available in the market:

- Coburn CF85 Oral Calf feeder*
- Trusty Tuber Calf Drencher tube*
- Jorgensen Labor Oral Calf drencher
- Perfect Udder reusable Esophageal tube

Hints:

- Keep tube feeders for colostrum feeding (day one calf only) separate from tube feeders for sick calves to prevent disease transmission from sick calves to newborn calves.
- Do not use if the tube has cracks or sharp edges.
- Make sure feeder is cleaned and disinfected after each use – see pg. 5 *Removing the Tube* Step #3 for cleaning and disinfection instructions.
- Store in a dry and cool place when not in use.
- Keep spare feeders in case replacement is needed.
- Disposable options are available (e.g., Perfect Udder System)– see pg. 5 *Additional Resources*.

Water-based lubricant

Disposable gloves

The fluid to be delivered (e.g., colostrum, milk, milk replacer, electrolytes)

Kitchen Thermometer

This is for checking the fluid temperature:

- Warm fluids to 98-105°F at time of administration.
- Do not overheat, especially colostrum, because it could damage nutrients.
- Cold milk should also be avoided as it can cause GI problems.

Methods of Tube Feeding

MEASURE THE TUBE

- 1 Measure the length of the tube to be inserted (mouth to shoulder) and mark with tape or marker pen (*Fig. 1*).
- 2 Ensure tube is smooth without cracks or sharp edges. Cracked tubes can leak fluid and result in aspiration. Sharp edges can lead to trauma to the esophagus and cause diphtheria.



Figure 1: Measure Length of Tube from Mouth to Shoulder

RESTRAIN THE CALF

- 1 Position a standing calf between your legs and back to corner or panel (*Fig. 2*).
- 2 Hold the head in neutral position (*Fig. 3*).



Figure 2: Position calf



Figure 3: Hold head in neutral position

INSERTION OF THE TUBE

- 1 Clamp the tube off, then lubricate the tip of the tube.
- 2 Slowly and gently insert the tube over the tongue toward the left side of mouth with tube clamped off (*Fig. 4*).
- 3 Gently slide the tube down the esophagus. Do not advance the tube by force.



Figure 1: Gently insert the tube

CHECK THE PLACEMENT OF THE TUBE

- 1 Feel the left side of the calf's neck to make sure that tube is inserted in the esophagus, and not in the trachea (windpipe) (*Fig. 5*).
- 2 The trachea is firm and has rings or ridges that you can feel when touched. (*Fig. 5*).
- 3 The esophagus is a hollow soft muscular tube, and when the feeding tube is properly placed, you should be able to feel both the tube within the esophagus on the left side of the calf's neck, as well as the trachea in the middle of the neck (*Fig. 5*).

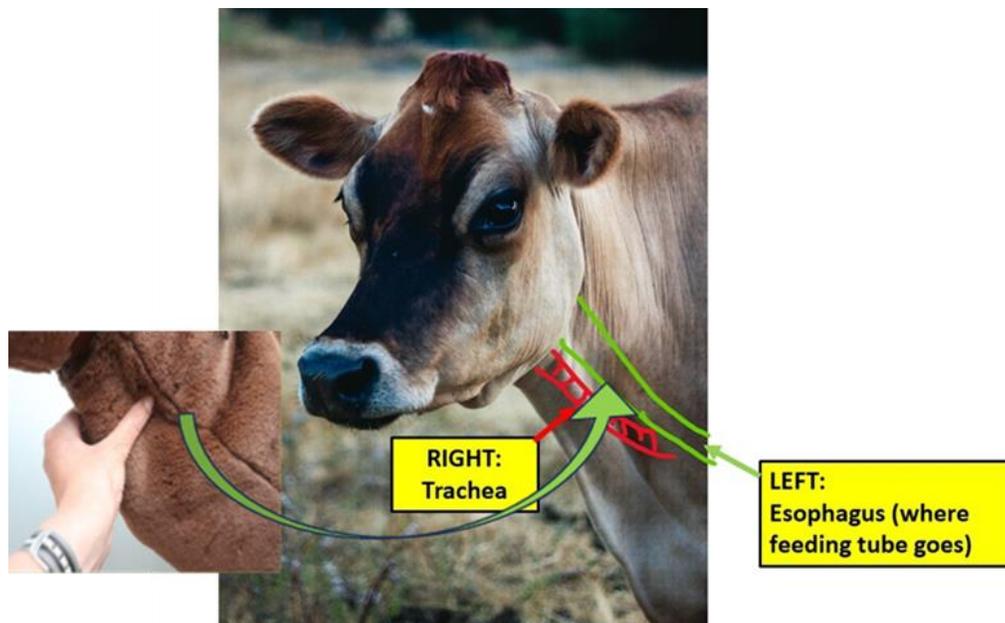


Figure 2: Feel for the esophagus on the LEFT when the tube is placed

DELIVER THE FLUID WHILE KEEPING THE TUBE IN PLACE

- 1 Lift the fluid bag.
- 2 Unclamp tube.
- 3 Deliver all fluid.

REMOVING THE TUBE

- 1 Ensure the flow control valve is clamped. If the tube does not have valve, kink the tube to prevent leakage of fluid into the trachea.
- 2 Remove the tube gently.
- 3 Rinse the tube and wash the feeder with soap and hot water. Rinse with disinfectant such as iodine solution, followed by a hot water rinse, then hang to drain and dry.



Additional Resources:

Watch video on How to tube feed newborn calves (esophageal feeding):

<https://www.youtube.com/watch?v=UR17T-ME2To>

Read extension article on tube feeding a calf:

https://www.mcgill.ca/research/files/research/dc-506_tube_feeding_a_calf.pdf

Perfect Udder system: <http://dairytechinc.com/store/perfect-udder-trial-kit/>

Pasteurizers: <https://dairytechinc.com/product-category/pasteurizers-and->

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