Macdonald Campus Farm Cattle Complex Standard Operating Procedure # DC-506

TUBE FEEDING A CALF

1. PURPOSE

Proper care of newborn and sick calves is critical for their long-term health and survival. If a calf is unable to suckle from a bottle to consume enough colostrum or fluids, then a stomach tube should be used.

2. RESPONSIBILITY

- 2.1 Veterinarian.
- 2.2 Trained and qualified personnel

3. MATERIALS

- 3.1 Calf esophageal feeder (feeder consists of a plastic ball probe with an attaching plastic tube and reusable plastic pouch or bottle that holds the fluid)
- 3.2 Fluids (Colostrum(C), transition milk, (TM) milk replacer (MR), electrolytes warmed to 98-100°F (38°C)
- 3.3 Marking equipment (e.g., pen, tape)

4. GENERAL

- 4.1 A minimum of two individuals is required to administer tube feeding to a calf.
- 4.2 Feeding calves requires patience! If a calf refuses to drink from a bottle, notify the technician or herd supervisor. A second person should attempt to bottle feed the calf before implementing the use of an esophageal tube feeder.
- 4.3 Do not tube feed a calf that is so weak that it has little or no ability to swallow. Tubing calves in this state can result in liquid aspiration to the lungs. The veterinarian must be consulted.
- 4.4 Premature or small calves should not be tube fed more than 1 L per feeding.
- 4.5 Proper technique requiring training to ensure the correct placement of the tube is critical to success.
- 4.6 The esophageal feeder can cause damage to the animal if used improperly.

5. PROCEDURE

5.1 For Colostrum or MR, prepare the fluids as per related SOP:

DC-500: Colostrum Powder Supplement

DC-501: Colostrum management
DC-502: Milk Replacer Preparation

- 5.2 Use a thermometer to ensure any liquid, including transition milk and electrolytes are at body temperature of 98-100°F (38°C).
- 5.3 Ensure that all equipment has been thoroughly cleaned and is in good working order.
- 5.4 Ensure the feeding tube is the right length for the calf: The length of the tube and the size of the calf will dictate how far to insert the tube.
 - 5.4.1 Feeding tube is already marked with weights in kg: Slide the black ring to the approximate weight of the calf. Otherwise, refer to Section 5.4.2.

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- 5.4.2 Steps to ensure the correct sizing of a feeding tube:
 - 5.4.2.5 Measure the distance between the tip of the

the front leg. This is the approximate distance that the tube should be inserted (Figure 1).

5.4.2.6 Mark this distance on the tube.

5.5 RESTRAIN CALF:

- 5.5.1 Work quietly and calmly as to avoid causing stress to other animals.
- 5.5.2 Position the calf between your legs in a standing position. (Fig. 2)
- 5.5.3 A minimum of two individuals is required to administer tube feeding to a calf. One person should secure the calf in an upright position, while the other person inserts the tube and ensures the calf's head remains elevated. If necessary, a third person can assist by holding the milk bag or bottle.

5.5.4

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5.6 INSERT THE FEEDING TUBE:

- 5.6.1 Moisten the probe end of the feeder with the fluid to lubricate and make the bulb slippery.
- 5.6.2 gently to open its mouth. (Figure 4). neutral position. If the neck is too extended, the feeding tube has more chance to enter in the trachea instead of in the esophagus.
- 5.6.3 Kink the plastic tube and slowly push it over the tongue to the back of the mouth, aiming the tube to the left of the throat. This will stimulate the calf to swallow.
- 5.6.4 Once the calf swallows the end of the feeder, slide the tube gently down the esophagus to the pre-determined mark. The tube must remain kinked until it reaches the stomach to avoid aspiration into the lungs. (Fig. 5)
- 5.6.5 Stop immediately if you feel any resistance, pulW*3

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6. REFERENCES

Adams, Ragan and McPhail, Eric. Proper Use of the Bovine Esophageal Feeder. Retrieved from http://veterinaryextension.colostate.edu/menu2/Cattle/TubeDoc.pdf

Agriculture and Horticulture Development Board 2018. Calf management. (Tube feeding colostrum to calves).

Antahi Innovations Ltd. 2018. Preventing Aspiration (How can milk get into the airway? What can go wrong?). Retrieved from http://antahi.com/preventing-aspiration/

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