

NEWBORN CARE AND HANDLING

STANDARD OPERATING PROCEDURE (SOP)

TEMPLATE AND GUIDELINES



GUIDING PRINCIPLE: Newborns handled with gentleness and patience are more likely to perceive their surroundings and caregivers with trust, which makes subsequent human-animal interactions more likely to be efficient, safe and humane.

SOP TEMPLATE

Following the Dairy Care 365 “Newborn Care and Handling” module guidelines (pages 7-9), use this template and work with your veterinarian to develop a customized newborn care SOP for your dairy or calf ranch. Communicate the SOP details to appropriate employees and have available for easy reference. Review and update the SOP at least annually.

Dairy name: _____

Address: _____

Owner / Manager: _____ Phone: () _____ - _____

Veterinarian: _____ Phone: () _____ - _____

MATERNITY PEN PREP AND CARE (See Guidelines section 1.)

- Protocol for ensuring that the maternity pen(s) are clean and dry
- Protocol for when to move a cow into the maternity pen
- Protocol for dystocia intervention
- Protocol for removing the calf from the maternity pen
 - a. Protocol should include how the calf will be moved (i.e. carried, transported in a sled, etc.).
 - b. For caretaker safety, it is recommended that there always be at least two people present when a caretaker enters a pen with a cow and a newborn calf. It is impossible to predict when a cow might become aggressive or which cows might do so.
- Protocol for dipping the calf’s navel

COLOSTRUM AND NEWBORN CALVES (See Guidelines section 2.)

- Colostrum feeding protocol
 - a. May include protocols for thawing colostrum (if applicable), monitoring temperature of colostrum at the time that it is fed, etc.
- Colostrum quality monitoring protocol

TRANSPORTING CALVES SHORT DISTANCES (See Guidelines section 3.)

- Protocol for loading, transporting and unloading (if newborn calves are transported to a different location)

CALF ENVIRONMENT AND MANAGEMENT (See Guidelines section 4.)

- Protocol for bedding management in pre-weaning calf housing
 - a. Protocol to include potential changes during cold weather (e.g. blankets)
- Protocol for caretaker feeding and management procedure work flow (youngest to oldest)

DIET (See Guidelines section 5.)

- Protocol for providing water for pre-weaned calves
- Protocol for providing starter grain for pre-weaned calves
- Protocol for providing milk / milk replacer for pre-weaned calves, which may include:
 - a. Monitoring temperature of milk / MR at the time that it is fed
 - b. Monitoring total solids of milk / MR
 - c. Monitoring level of bacterial contamination of milk / MR
 - d. Monitoring cleanliness of milk / MR feeding equipment / bottles / buckets / etc.
 - e. Sanitation of milk storage, transport and feeding equipment
 - f. Ensuring that calves are provided adequate calories during cold weather (e.g. increased feeding frequency)

DISBUDDING AND DEHORNING (See Guidelines section 6.)

- Protocol for disbudding and / or dehorning (to include protocol for anesthesia and analgesia)

CASTRATION (See Guidelines section 6.)

- Protocol for castration, if applicable (to include protocol for anesthesia and analgesia)

VACCINATION (See Guidelines section 7.)

- Protocol for vaccination

DETECTION, DIAGNOSIS AND TREATMENT OF ILLNESS (See Guidelines section 8.)

- Protocol for detection, diagnosis and treatment of illness

TREATMENT RECORDS (See Guidelines section 9.)

- Protocol for recording diagnoses and treatments
- Protocol for where / how records will be stored
- Protocol for avoiding drug residues

ADDITIONAL NOTES

Owner / Manager signature: _____ Date: _____

Veterinarian signature: _____ Date: _____

Date SOP created: _____ Date SOP last revised: _____

1 MATERNITY PEN PREP AND CARE

- Keep maternity pens clean and dry.
 - a. Remove soiled bedding daily.
 - b. Add fresh bedding as needed.
- Assist delivery only when necessary, and do so gently.
- Dip the calf's navel in an appropriate solution.

2 COLOSTRUM AND NEWBORN CALVES

- Adjust your behavior.
 - a. Be mindful that you are interacting with a newborn baby.
 - b. Use gentleness and patience to instill trust in humans.
- Feed colostrum as soon as the calf can suckle within 2 hours of birth.
 - a. Recognize the calf's ability to absorb colostrum declines quickly after birth.
 - b. Give the proper amount of colostrum.
 - Large breeds (Holstein and Brown Swiss): 1 gallon
 - Small breeds (Jersey and others): 2-3 quarts
- Measure colostrum quality to ensure that it has an adequate concentration of immunoglobulin utilizing _____.
- Monitor colostrum quality for cleanliness / bacterial contamination by _____.
- Manage the colostrum temperature. It should be 100-105°F when it is fed.
 - a. If frozen or chilled, thaw and warm to this temperature prior to feeding.
- Monitor the hole in the bottle's nipple to ensure that colostrum does not leak out when the bottle is inverted.
 - a. NOTE: If the nipple is too large, calves are at risk of aspirating colostrum into their lungs and subsequently developing pneumonia.
- Tube-feeding colostrum
 - a. First make sure there is not milk in the tube.
 - b. Next, straddle the calf and place the tube into the calf's esophagus.
 - c. Take care to ensure that the tube is in the esophagus, either visually or by palpation.
 - d. Before removal of the tube, ensure that there is not milk in the tube.



3 TRANSPORTING CALVES SHORT DISTANCES

- Secure an acceptable method for moving newborn calves over short distances: sled, wheeled (e.g. wheelbarrow) or a person authorized to carry calves.
- Gently secure the calf on and off the transport.
- SAFETY TIP: If you are carrying, be sure to lift with your legs, not your back.
- Transporting newborn calves via trailer
 - a. Lift calves onto the trailer and gently lay them onto the floor of the trailer. Be careful not to drop them.
 - b. Do not overload the trailer; each calf should have at least 4 square feet of space.
 - c. Drive slowly.
 - d. Unload calves by lifting and carrying them to the hutch and then placing them gently into the hutch. Be careful not to drop them.
 - e. Do not move calves by pulling on the calf's ears or tail.

4 CALF ENVIRONMENT AND MANAGEMENT

- When caring for the calf environment, start with the youngest calves and proceed to older calves to minimize the spread of disease agents.
- Supply adequate bedding to keep calves warm, clean and dry.
 - a. Supply additional bedding when ambient temperature is low.
- Only enter calf hutches when necessary.

5 DIET

- Follow your farm's protocol for feeding times to ensure consistency. If cold, increase frequency to match your farm's cold weather feeding time protocol.
- Prepare the milk or milk replacer according to your farm's protocol.
- Measure the total solids in the non-saleable milk and milk replacer diets by _____ to ensure the total solids matches your veterinarian's or nutritionist's recommendation. Note, it is possible your farm may have a different total solids goal in cold weather.
- Give calves clean, fresh water daily, beginning on day one.
- Give fresh starter grain daily, beginning on day one.
- Adjust the amount of milk volume, total solids or grain goals according to your farm's protocol for increasing feed during cold weather.

6 DISBUDDING, DEHORNING AND CASTRATION

- Only trained personnel should complete these procedures.
- Disbud and castrate within the first two days of life or minimally by day five.
- Older calves can be dehorned with a cauterizing iron.
- Implement your veterinary prescribed pain or anesthetic protocols.

7 VACCINATION

- Assess the calves' health prior to vaccination.
- Do not vaccinate sick calves.
- Properly restrain calves by either _____ or _____.
- Inject in the pre-scapular area (i.e. just in front of the shoulder) for subcutaneous and intramuscular vaccines.
- If giving more than one vaccine, administer each vaccine on opposite sides of the neck.
- Use a 16- or 18-gauge, ½-inch needle for subcutaneous administrations.
- Intranasal vaccines are administered using a cannula inserted into the nose.

8 DETECTION, DIAGNOSIS AND TREATMENT OF ILLNESS

- Work with your veterinarian to integrate a calf monitoring protocol into your SOP to promote early detection of sick calves for optimal treatment outcome.
- Work with your veterinarian to integrate a diagnosis protocol into your SOP.
- Measure or estimate weight for calculating medication dose.
- Use a ¾- or ½-inch needle for intramuscular administrations, depending on the age of the calf.
- Properly restrain calves prior to treatment by either _____ or _____.

9 TREATMENT RECORDS

- Record treatments according to your SOP for every treatment given.
- File records for easy access.
- Prior to shipping, refer to treatment records to confirm treatment withdrawal expiration dates.

FOR MORE INFORMATION ABOUT DAIRY CARE 365, CONTACT YOUR MERCK ANIMAL HEALTH REPRESENTATIVE OR EMAIL DAIRYCARE365@MERCK.COM.