

CALF PEN SANITATION

1. PURPOSE

Maintaining clean pens is essential in keeping the animals clean and thereby reducing the spread of environmental pathogens to a newborn calf and to wounds and injuries.

2. RESPONSIBILITY

- 2.1 Trained and qualified personnel
- 2.2 Herd Manager

3. MATERIALS

- 3.1 Wheelbarrow
- 3.2 Pitchfork or Plastic bedding fork
- 3.3 Shovel
- 3.4 Broom
- 3.5 Paper bedding
- 3.6 Straw
- 3.7 Limestone
- 3.8 Virkon® (or equivalent)
- 3.9 Personnel Protective Equipment (gloves, mask, eye protection)

4. GENERAL

- 4.1 Calf pens are thoroughly cleaned daily (preferably in the afternoon).
- 4.2 Assess the cleanliness of the animal and tie stall to determine if sanitation of the stall is adequate. If inadequate, appropriate corrective action must be taken Refer to SOP [DC-304: Dairy Cow Cleanliness Assessment](#).
- 4.3 Pens that have been exposed to calves with contagious infections MUST follow disinfection procedures (see Section 5.4).

5. PROCEDURES

- 5.1 CALVES ON STRAW BEDDING:
 - 5.1.1 Remove any calf feed and hay from the feed mangers before cleaning (to prevent soiling the feed with dirty bedding).
 - 5.1.2 Wash water bowl, if necessary.
 - 5.1.3 Remove all the manure and urine. Spread the bedding to identify any soiled areas underneath the bedding.
 - 5.1.4 Place all soiled bedding into the wheelbarrow.
 - 5.1.5 In warm weather, dump the manure directly into the manure shed, otherwise dump it in the solid manure chain gutter at the end of the dairy barn.
 - 5.1.5.1 Start the chain gutter.
 - 5.1.5.2 Empty the wheelbarrow.

- 5.1.6 Stop the chain gutter before going back to the calf barn. When all soiled bedding is removed, spread out any remaining clean paper bedding.
- 5.1.7 Add more wood shaving and paper bedding to provide a minimum thickness of 3 cm.
- 5.1.8 Spread out any remaining straw over the paper bedding.
- 5.1.9 Add more straw until the thickness of the straw to a minimum of 23 cm.



Figure 1: Clean Paper-Bedded Pen with Pasture Mat

5.2 CALVES ON PAPER BEDDING:

- 5.2.1 Remove any calf feed and hay from the feed mangers before cleaning (to prevent soiling the feed with dirty bedding).
- 5.2.2 Wash the water bowl if necessary.
- 5.2.3 Remove all the manure and urine.
- 5.2.4 Spread the bedding to identify any soiled areas underneath the bedding.
- 5.2.5 Place all soiled bedding into the wheelbarrow.
- 5.2.6 In warm weather, dump the manure directly into the manure shed, otherwise dump it in the solid manure chain gutter at the end of the dairy barn.
 - 5.2.6.1 Start the chain gutter. Refer to [SOP DC-206 Box Stall Sanitation](#)
 - 5.2.6.2 Empty the wheelbarrow
 - 5.2.6.3 Stop the chain gutter before going back to the calf barn.

5.2.7 When all soiled bedding is removed, spread out any remaining clean paper.

5.2.8 Sleep Area: (see Figure 1)

5.2.8.1 Pens without a pasture mat:

5.2.8.1.1 Add more wood shavings to the sleeping area until it is level with the 4x4.

5.2.8.2 Pens with pasture mats:

5.2.8.2.1 Ensure there is enough bedding for comfort and absorption of urine (minimum thickness of 5 cm). Add more paper bedding if necessary.

5.2.8.2.2 Ensure there is enough paper bedding on the floor to absorb urine and feces. If there is too much bedding, the calves may sleep on the floor rather than the bed.

5.3 After all calf pens (straw and paper bedding) have been cleaned:

- 5.3.1 Sweep the wood neck rails and the mangers.
- 5.3.2 Return all feed back to its respective pen.
- 5.3.3 Sweep the aisle behind the pens.

5.4 PEN DISINFECTION:

IMPORTANT

Pens that have been exposed to calves with contagious infections **MUST** be disinfected with Virkon® (or equivalent) and limestone.

- 5.4.1 Scrape any bedding/ manure from surfaces.
- 5.4.2 Remove all remaining bedding and dump in solid manure chain gutter or directly in manure shed.
- 5.4.3 Don a mask, gloves, and eye protection.
- 5.4.4 Prepare Virkon® (or equivalent) as per manufacturer instructions.
- 5.4.5 Disinfect the floor pasture mat (if one), and any other potentially contaminated surfaces (bars, water bowl, walls, enrichment devices) with Virkon® (or equivalent).
- 5.4.6 Allow to air dry.
- 5.4.7 Sprinkle limestone on the floor, including the floor pasture mat.
- 5.4.8 Leave the stall empty, ideally for 24 hours.

Document Status and Revision History

DATE	STATUS
2-May-2018	Version 01: Approved by Mac Campus FACC
	<p>3.5 Replace: Wood shavings. with: Paper bedding throughout the document</p> <p>Add 5.1.2 “Wash water bowl, if dirty, using the bowl and brush located on the shelf at the front of the calf barn”</p> <p>5.1.3 Delete:” Pitchfork”</p> <p>5.1.10.1 Add “wood beam”</p> <p>Delete 5.1.10 Calf pens with sleeping area at the back of the pen:</p> <ul style="list-style-type: none"> 5.1.10.1 Paper bedding must be level with the 4x4 wood beam 5.1.10.2 Ensure there is enough paper bedding on the floor (front of pen) to absorb urine and feces. If there is too much bedding at the front, the calves may sleep on the floor rather than on the bed. <p>Add 5.2.2 “Wash water bowl, if dirty, using the bowl and brush located on the shelf at the front of the calf barn”</p> <p>5.2.5 replace all reference to “conveyor” with “Chain gutter”</p> <p>Remove 5.2.7.1. Pens without a pasture mat are bedded with straw</p> <p>Remove 5.2.7.1.1</p> <p>5.4.7 change from Disinfect the floor with Virkon” to “Disinfect the floor pasture mat (if one), and any other potentially contaminated surfaces (bars, water bowl, walls, enrichment devices) with Virkon.”</p>
10-July-2023	Version 03: Reviewed and approved by Macdonald Campus FACC