Preventing Down Cattle

Farmers work hard to provide excellent care for their cattle. However, cattle sometimes get sick or hurt, and can go down and be unable to get up. These situations are stressful for both animal and farmer, which is why it's important to do everything we can to prevent them.

What's Causing Animals to Go Down?

Common causes of down cows are:

- Mastitis
- Hypocalcemia or milk fever
- Metritis
- Injury

Common causes of down heifers:

- Injury

Common causes of down calves are:

- Dehydration
- Injury
- Disease
  - Respiratory disease
  - Diarrhea
  - Navel infections

Areas of Opportunity for Prevention

To prevent animals from going down on your farm and to facilitate their recovery, it is important to evaluate the following areas:

- Housing
- Cattle handling techniques
- Calving management
- Mastitis prevention
- Calf disease management
- Transition cow health and management

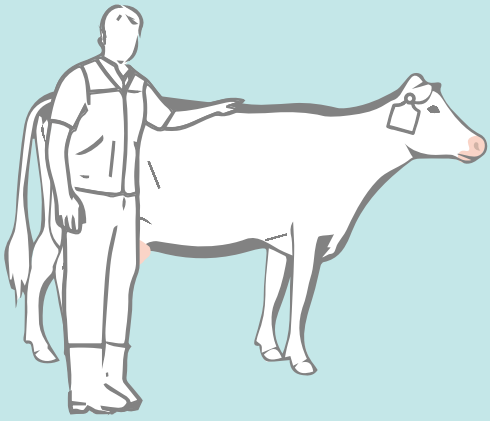
Housing

Traction: Good traction is important for preventing injury from slipping and falling. This is achieved through grooving concrete flooring, adding straw or sand to walking surfaces, or adding rubber flooring. As much as possible, keep high traffic areas free of moisture to prevent surfaces from becoming slippery. Animals in heat should be housed in an area with good footing to prevent injury to themselves and other animals.

Pen and Alley Design: Minimizing narrow alleys, steps and ledges, turns, and dead ends is critical whenever possible. This will prevent animals from becoming trapped if they fall, and can allow better escape routes for bullied animals.

Stocking Density: Appropriate stocking density ensures that all cattle have easy access to feed, water, and comfortable lying areas. Overcrowding leads to increased competition for resources, increased time spent standing, and can create issues for subordinate animals.

Hospital Pens: Ensure all cattle in hospital pens have ample access to feed and water, and minimize the distance high-risk and/or vulnerable cattle need to travel to access these resources. House sick, weak, thin, and lame animals in a well-bedded, comfortable hospital pen to facilitate recovery. Ensure these hospital pen stocking densities allow at least 120 square feet per animal.



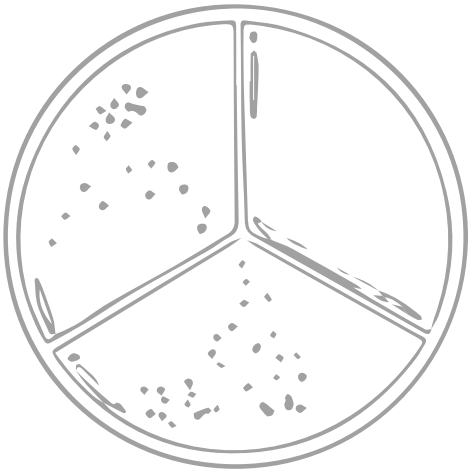
Handling Techniques

A Calm Approach: Animals that are moved too quickly or aggressively become stressed or excitable and are prone to slipping, falling, and becoming injured. All animal handlers must be trained to move animals using quiet, calm, low-stress handling techniques, as outlined in proAction®. This is important for both animal and human safety.

Talk to Your Staff: Are they feeling pressured to rush through tasks? Is milking time relaxed or high-stress? Consider their feedback and how that might be impacting their ability to move animals effectively and appropriately, and adjust to ensure they can meet your cattle handling expectations.

Mastitis Prevention

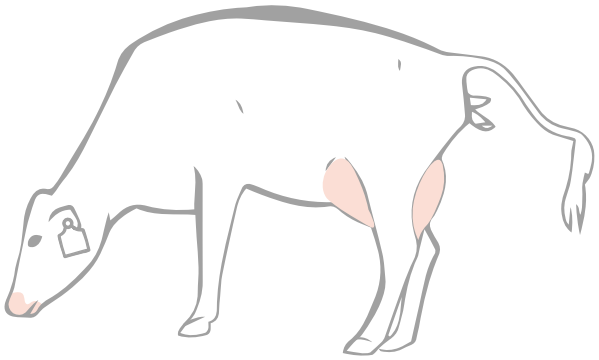
Toxic Mastitis: Certain types of bacteria (E. coli, or Klebsiella) can cause sudden onset of toxic mastitis. Cattle can go down when affected by severe cases of mastitis because bacteria have entered their bloodstream and they have gone into shock. If you experience down cattle due to mastitis, evaluate cow cleanliness, stall and bedded pack cleanliness, and milking techniques and procedures. Work with your veterinarian to evaluate these cases.



Speak to your veterinarian: Discuss implementing a vaccination program that can help to reduce the incidence of certain types of mastitis infections in your herd.

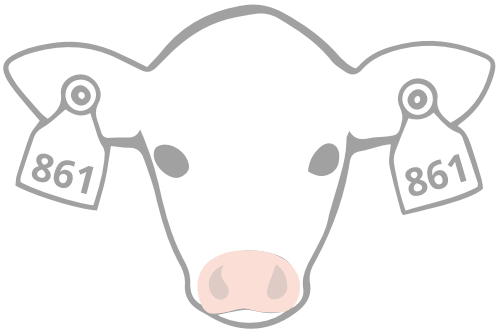
Calving Management

Plan Ahead: Prior to calving, additional decisions can be made to prevent injuries as a result of calving difficulty. Selecting sires for calving ease and ensuring that first-calf heifers are an appropriate size at calving are important considerations to minimize injuries as a result of calving. This will benefit both the calf and cow!



Pen Setup: Calving pens should be clean, deeply bedded, and allow calving cows ample space to segregate themselves and lie down. Ensuring calving pens are cleaned both before and after the delivery of calves can help to prevent calf disease.

Assisted Calving: Close monitoring of the calving pen is important to allow for timely intervention by trained personnel when needed. This is of particular importance for first-time calvers and cows not showing good progress. When intervention is required, ensure that manual pulling of calves and the use of a calf jack is done safely and appropriately, so as not to cause injury to both calf (broken legs, broken ribs, facial swelling) and cow (paralysis, broken pelvis). **Call your veterinarian if you need help to assist cows that are having difficulty calving to reduce the risk of injury to both calf and cow.**



Calf Disease Management

Calves should be monitored closely in the weeks after birth to ensure they are bright, vigourous and drinking well. **As per proAction® requirements, all calves should receive four litres of good-quality colostrum within 12 hours after birth, with the first meal occuring no later than six hours after birth.** It is a recommended best practice to measure colostrum quality before storing or providing to calves: evidence suggests it should read > 22% on the Brix refractometer scale[1]. Having good colostrum SOPs in place can help to reduce the risk of disease in young calves.

Diarrhea

Calves with diarrhea lose fluids and electrolytes rapidly. At the onset of diarrhea, even if calves are bright and alert, it is important to offer oral electrolytes while continuing milk feeding. Consider splitting into four feedings where calves receive fluids every six hours.

Monitor calves for signs that they are dull or depressed, or are unable to stand. This could be a sign of severe dehydration or metabolic acidosis. These calves require immediate intravenous fluids and correction of acidosis by a veterinarian or a trained person on the farm. **Diarrhea can be prevented by providing adequate clean, good-quality colostrum soon after birth, and ensuring the calving pen and calf housing areas are clean.**

Respiratory Disease

Early identification and treatment of respiratory disease is important to prevent calves from becoming critically ill. **To prevent respiratory disease from occuring, ensure good colostrum protocols are in place, and that housing is clean, appropriately stocked, and well-ventilated.** Vaccinations during the pre- and post-weaning period can also help to reduce the incidence of disease. Calves with severe respiratory disease can go down due to an inability to get oxygen. If calves get to this stage of disease, euthanasia is an important consideration.

Navel Infections

When calves are born, their umbilicus is open and unhealed, which creates easy access for pathogens to enter the bloodstream and proliferate to their internal organs (septicemia). This is a serious illness causing their inability to rise. **Prevent navel infections by ensuring calves are born and housed in clean environments, and that they receive good-quality, clean colostrum quickly after birth.**

Transition Cow Health and Management

Milk Fever

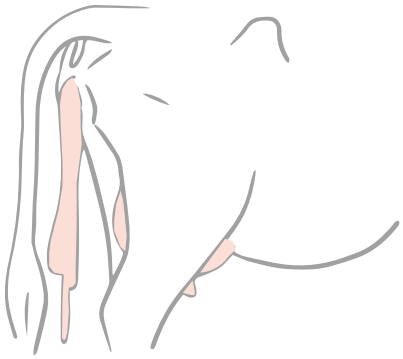
Milk fever or hypocalcemia is a common cause of cows being unable to rise due to a lack of calcium needed for muscle activity. If you want to reduce the incidence of down cattle due to milk fever, review your dry cow nutritional program with your nutritionist and other advisors to ensure there are no mineral or other imbalances present.

Additionally, speak with your veterinarian about your transition cow protocols and what you can do to prevent hypocalcemia.

Metritis

Metritis, or inflammation of the uterus, is caused by bacterial contamination during or after calving. Cows that had difficult calvings, stillborn calves, twins, or did not clean well (retained placenta) are at an increased risk of developing metritis. Cows can become recumbent when bacteria enters their bloodstream (septicemia) causing shock.

Metritis prevention includes ensuring appropriate body condition at dry-off (ideally, a body condition score of about 3.5) to reduce the risk of difficulty during calving, ensuring the calving area is as clean as possible, and that when calving interventions are applied, good hygiene is used.



References

1. *Bielmann, V., J. Gillan, N.R. Perkins, A.L. Skidmore, S. Godden, and K.E. Leslie. 2010. An evaluation of Brix refractometer instruments for measurement of colostrum quality in dairy cattle. J Dairy Sci. 93:3713-3712.*

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