



Calf Health Management Handout

Giving Your Calves the Best Start

A healthy herd starts with healthy calves. The first few hours and days of a calf's life determine its long-term productivity and survival rate. This guide focuses on the three pillars of early calf health: **Colostrum Management**, **Scours Prevention**, and **Pneumonia Prevention**.

1. Colostrum: The First Line of Defense

Calves are born without an immune system. They rely entirely on colostrum (the first milk) to receive antibodies (IgG) for protection against diseases.

The "5 Q's" of Colostrum Management

- **Quality:** High-quality colostrum contains at least 50 g/L of IgG.
 - *Action:* Use a **Brix refractometer** to test colostrum quality. A reading of **22% or higher** indicates high-quality colostrum.
- **Quantity:** Calves need a large volume to get enough antibodies.
 - *Action:* Feed **4 quarts (3.8 liters) within the first 4 hours** of life.
- **Quickly:** The calf's ability to absorb antibodies drops drastically after birth.
 - *Action:* **Feed within 2 hours of birth.** By 6 hours, absorption is halved.
- **Squeaky Clean:** Bacteria in colostrum bind to antibodies, preventing them from entering the calf's bloodstream.
 - *Action:* Sanitize all feeding equipment (bottles, tubes). Milk into clean buckets.
- **Quantify:** Measure success.
 - *Action:* Work with your vet to test blood serum total protein on calves aged 1-7 days to ensure immunity was successfully transferred.

2. Preventing Scours (Diarrhea)

Scours is the most common cause of death in young calves. It is caused by viruses, bacteria, or parasites, usually exacerbated by poor hygiene.

Action Area	Prevention Strategy
Environment	Dry and Clean: Calves must be born in a clean area. Use the Sandhills Calving System to separate calves by age, preventing older calves from shedding pathogens onto newborns.
Nutrition	Consistency: Feed milk or milk replacer at the same temperature and time every day. Ensure milk replacer is mixed correctly to avoid osmotic diarrhea.
Hygiene	Disinfect: Clean feeding equipment after <i>every</i> use.
Vaccination	Dam Vaccination: Vaccinate cows 3-6 weeks before calving to increase antibody levels in their colostrum.

If a calf gets scours: Immediately isolate the calf and dam. Initiate **electrolyte therapy** alongside normal milk feeding to prevent dehydration.

3. Preventing Pneumonia (Respiratory Disease)

Pneumonia is often a result of stress, poor ventilation, or pathogen exposure.

- **Ventilation is Key:** Calves need fresh air, not drafts.
 - *Tip:* The air in a calf barn should smell fresh. If you smell ammonia, ventilation is inadequate.
- **Reduce Stress:**
 - Avoid overcrowding pens.
 - Minimize handling during extreme weather.

- **Environmental Control:**
 - Provide deep, dry bedding (straw is best) so calves can nestle down and keep warm.
- **Vaccination:**
 - Work with your veterinarian to develop a vaccination protocol against common pneumonia pathogens (IBR, PI3, BRSV, Pasteurella).

 **Monitoring Checkpoint**

Signs of a Healthy Calf	Signs of a Sick Calf
Bright, alert, responsive	Droopy ears, lethargy
Ears held up and forward	Sunken eyes (sign of dehydration)
Follows dam/interacts	Isolated, won't stand
Scours-free manure	Nasal discharge, coughing, rapid breathing