

Winter Management of Cattle Calves: Practical Guidelines for Healthy Growth

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Winter is a critical period for cattle calves, especially newborns and young calves. Low environmental temperature, cold winds, fog, and damp conditions can adversely affect calf health, growth, and survival. Improper winter management often leads to respiratory infections, diarrhea, poor weight gain, and increased mortality. Therefore, scientific and timely winter management is essential to ensure healthy development and future productivity of cattle calves.

1. Importance of Winter Care in Calves

Calves have an immature thermoregulatory system and limited body fat, making them highly susceptible to cold stress. Cold stress increases energy requirements, suppresses immunity, and predisposes calves to diseases such as pneumonia and hypothermia. Proper winter management helps in:

- Reducing calf mortality
- Improving growth rate and feed efficiency
- Enhancing disease resistance
- Ensuring better future milk production potential

2. Housing Management During Winter

Proper housing is the most important aspect of winter calf management.

- **Protection from Cold Winds:** Calf sheds should be protected from cold winds, especially from the north and east directions. Use curtains, gunny bags, or plastic sheets to block direct cold air.
- **Dry and Clean Flooring:** Wet and damp floors increase heat loss and disease risk. Provide dry bedding material such as straw, paddy husk, sawdust, or dry leaves.
- **Adequate Ventilation:** While blocking cold winds, ensure sufficient ventilation to prevent accumulation of moisture and harmful gases like ammonia.
- **Separate Calf Pens:** Young calves should be housed separately from adult animals to reduce disease transmission.

3. Bedding and Warmth Provision

- Provide thick bedding during winter and replace it regularly to keep it dry.
- Bedding acts as insulation and helps conserve body heat.
- In severe cold conditions, especially for newborn calves, calf jackets or blankets can be used effectively.
- Ensure calves remain dry; wet calves lose body heat rapidly.

4. Feeding and Nutritional Management

Winter increases the energy requirement of calves by 10–20% due to cold stress.

- **Colostrum Feeding:** Newborn calves should receive adequate colostrum (10% of body weight) within the first 6 hours of birth. Warm colostrum should be fed during winter.
- **Increase Energy Density:** Provide good-quality milk or milk replacer slightly warmed (around body temperature).
- **Balanced Starter Feed:** Offer calf starter rich in energy and protein to support growth and immunity.
- **Roughage:** Provide good-quality dry fodder in adequate quantity to older calves.
- **Clean and Lukewarm Water:** Cold water reduces intake; offer clean, lukewarm drinking water during winter.

5. Health Care and Disease Prevention

Winter favors the spread of respiratory and digestive diseases.

- **Prevent Pneumonia:** Avoid overcrowding and sudden temperature changes. Ensure proper ventilation without drafts.
- **Timely Vaccination:** Follow recommended vaccination schedules to protect calves from common infectious diseases.
- **Deworming:** Regular deworming should not be neglected during winter.
- **Early Disease Detection:** Monitor calves daily for signs such as coughing, nasal discharge, diarrhea, dullness, or reduced feed intake.
- **Isolation of Sick Calves:** Immediately separate sick calves to prevent disease spread.

6. Management of Newborn Calves in Winter

Newborn calves require special attention during cold months.

- Dry the calf immediately after birth using a clean towel or gunny bag to prevent hypothermia.
- Allow the calf to stand and suckle as early as possible.
- Keep the navel clean and disinfected to prevent infections.

- Provide a warm, draft-free environment for at least the first 2–3 weeks of life.

7. General Management Practices

- Avoid bathing calves during winter unless absolutely necessary.
- Allow exposure to sunlight during daytime, as sunlight improves vitamin D synthesis and overall health.
- Maintain proper hygiene in calf pens to reduce pathogen load.
- Minimize stress due to handling, transport, or sudden dietary changes.

8. Economic Benefits of Proper Winter Calf Management

Good winter management reduces treatment costs, mortality losses, and growth retardation. Healthy calves grow faster, reach puberty earlier, and perform better as future milch animals. Thus, investing in winter calf care yields long-term economic benefits for farmers.

Conclusion

Winter management of cattle calves is a combination of proper housing, adequate nutrition, effective health care, and attentive daily observation. Simple practices such as providing dry bedding, protecting calves from cold winds, feeding warm milk, and maintaining hygiene can significantly improve calf survival and performance. Farmers should adopt these scientific winter management practices to ensure healthy calves and a profitable dairy enterprise.