

Care and Management of Dairy Animals During Winter Season

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Introduction: Importance of Winter Care

Winter is a difficult season for dairy animals, particularly in regions where cold winds, fog, frost, and low temperatures prevail. During this period, animals experience cold stress, which occurs when the environmental temperature falls below their comfort zone. To maintain body heat, animals use more energy, which often leads to reduced milk production, loss of body condition, weakened immunity, and reproductive problems. Calves, pregnant animals, sick animals, and high-yielding dairy cows are especially vulnerable during winter. Therefore, proper care and management during this season are essential to maintain animal health, productivity, and farm profitability.

Housing Management for Protection Against Cold

Housing plays a vital role in protecting dairy animals from winter stress. Animals should be provided with shelters that protect them from cold winds, rain, fog, and frost. Open sides of sheds facing cold winds should be covered with gunny bags, plastic sheets, straw mats, or curtains, particularly during night and early morning hours. Floors must be kept dry and clean, as wet and muddy floors increase heat loss from the body and predispose animals to foot problems and mastitis. Proper drainage should be ensured to prevent water stagnation.

Use of Bedding and Ventilation

Providing bedding materials such as paddy straw, wheat straw, dry leaves, sawdust, or sand helps animals conserve body heat and improves comfort. Bedding should be changed or dried regularly to avoid moisture accumulation. At the same time, adequate ventilation is necessary to remove moisture and harmful gases like ammonia. Poor ventilation, combined with cold and damp conditions, can lead to respiratory diseases, especially in calves.

Feeding Management During Winter

Feeding management during winter requires special attention because animals need more energy to maintain their body temperature. Energy-rich feeds such as cereals and oil cakes should be included in the ration, particularly for lactating and pregnant animals. Good quality roughage is essential for proper rumen function, and dry fodder like wheat straw and paddy straw should be supplemented with green fodder whenever available.

Role of Green Fodder and Balanced Nutrition

Winter green fodders such as berseem, lucerne, oats, rye grass, and mustard leaves are rich in protein, vitamins, and minerals and help improve milk yield and animal health. When green fodder



is scarce, urea-treated straw or silage can be used to improve nutritive value. High-yielding animals should be fed concentrates according to their level of milk production. Daily supplementation of mineral mixture and common salt is necessary during winter to overcome nutritional deficiencies.

Water Management in Cold Weather

Water management is often neglected during winter, but it has a direct impact on milk production and digestion. Due to cold temperatures, animals tend to drink less water, which can reduce feed intake and milk yield. Clean and fresh drinking water should be provided at least two to three times a day. Extremely cold water should be avoided, especially in the early morning, and lukewarm water may be offered during severe cold conditions.

Special Care of Calves

Calves require special care during winter as they are highly susceptible to cold stress, pneumonia, and diarrhea. Calf pens should be dry, well-bedded, and free from cold drafts. Providing extra bedding and covering calves with gunny bags or calf jackets during night helps maintain body warmth. Newborn calves must receive adequate colostrum within the first few hours of birth to develop strong immunity and resistance against diseases.

Milking and Udder Health Management

Milking management during winter should focus on maintaining udder health and milk quality. Cold and wet conditions increase the risk of mastitis, making hygiene extremely important. Udders and teats should be cleaned and dried properly before and after milking. Washing the

udder with lukewarm water during cold mornings helps stimulate milk let-down and improves animal comfort. Post-milking teat dipping with disinfectant solution reduces the risk of udder infections.

Health Care and Disease Prevention

Cold stress weakens the immune system of dairy animals, making them more prone to diseases such as pneumonia, mastitis, foot rot, and digestive disorders. Preventive measures such as timely vaccination against foot-and-mouth disease, haemorrhagic septicaemia, and black quarter should be followed. Regular deworming improves feed utilization and overall health. Farmers should closely observe animals for early signs of illness and seek veterinary help at the earliest.

Management of Pregnant and High-Yielding Animals

Pregnant animals, especially in the last trimester, and high-yielding dairy animals require extra care during winter. They should be provided with warm, comfortable housing and balanced nutrition to support fetal growth and milk production. Sudden exposure to cold, overcrowding, and stress should be avoided. Proper winter care ensures better reproductive performance and higher milk yield in the next lactation.

General Winter Management Practices

Allowing animals to bask in sunlight during the day helps maintain body warmth and supports vitamin D synthesis. Light movement or exercise improves circulation and overall health. Cleanliness in and around the animal shed reduces disease incidence. Sudden changes in feeding or management practices should be avoided to prevent stress and production losses.



Conclusion

Winter management of dairy animals is essential for maintaining health, productivity, and profitability. Simple and practical measures such as proper housing, balanced feeding, adequate water supply, disease prevention, and special care of calves and vulnerable animals can significantly reduce the harmful effects of cold stress. With appropriate winter care, dairy farmers can ensure healthy animals, steady milk production, and sustainable dairy farming throughout the year.

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