

Winter management of dairy cattle

Dr. Piyali Kuri

Department of Animal Physiology and Reproduction, ICAR-NDRI, ERS Kalyani

Corresponding author: piyalikuri@gmail.com

ARTICLE ID: 032

Introduction

Management is the key to improve production in livestock. During winter time animal used to go under cold stress which has a direct effect on their health and productivity. In this crucial time extra care and attention should be provided to animal through proper shelter, adequate nutritional food for improving health. During wet and cold conditions dairy cows have increased stress which leads to lower production (Webster *et al.*, 2008). There is some physiological as well as behavioural changes noticed in animals during cold season (Christopherson *et al.*, 1979).



Some points regarding shelter

1. For obstructing the flow of wind at animal's levels, curtains can be used in shelter which can be made of bamboo, dry grass, paddy straw, polythene, guinea bags etc.
2. Branches of trees can be chopped around the shelter for better sunlight which provide warmth and natural disinfectant of house.
3. Take out the animals from their shed during day time with full sunshine for direct UV rays and make sure to take them in before sunset.
4. Animal shelter and its floor should be clean and dry properly during this crucial time.
5. Bedding material should be kept warm by providing dry grass, guinea bags, rice husk etc.
6. Open paddocks should be kept for direct sun exposure for animals.

Feeding and watering

Most important part for winter management is providing adequate amount of feed and water. During winter season animals used to consume 10 to 30% more food than as usual (Pastoor *et al.*, 2012) for production of more heat in body.

1. During this crucial time animals should be provided with nutritious and balanced food, like berseem, various types of cake mustard cake, groundnut cake, cottonseed cake and soya bean flacks are rich in protein can be given.
2. Luke warm water for drinking should be provided.
3. Concentrate mixture given @ 2.5per kg for production of more heat.
4. Thyroid function and fat metabolism increased in response to cold stress (Broucek *et al.*, 1987).
5. Increase adding of fat or a mixture of oil cake and jaggery in ration to produce more heat.
6. To sustain the milk production and the body heat of the dairy animals, feed more roughages such as hay straw etc. and forages like berseem.
7. This is the right time for deworming animal's and vaccinated against FMD, Haemorrhagic Septicaemia, Enterotoxemia, Black Quarter etc and ensure that this is done now.

Caring of calves during harsh period

For better health and improved immunity, 0 to 3 month old calf should be treated with special care. Extra attention has to be given as this age is very critical for animals for suspecting diseases.

1. Calf shelter should be covered with guinea bag or polythene for preventing passing of cold air.
2. 0 to 3 months old calves should be treated with special care like providing heat in the shelter. For this purpose 200W bulb can be used.
3. Room heater should be placed for preventing extreme cold stress.
4. Luke warm feed and water should be provided.
5. Calf should be with the dam for a quality time or getting warmness.
6. Providing adequate amount of colostrum and milk to young animals.

7. Floor of the shelter should be clean twice a day for preventing spreading of disease.
8. Bedding of the animals should be clean and dry by using saw dust, straws, rice husk etc.
9. Proper management of drainage system for urine and other secretions, as wet floor may lead to many health problem like diarrhoea, fever, coccidiosis, chronic cough etc. which may lead to death.
10. Dewormed of the young animals
11. Provide one to two hours of exercise in the bright sunlight for boost immunity.

Vaccination schedule

For cattle	Age at first dose	Dose	Subsiquent dose
FMD	4 months or above	3ml SC	Booster after 1 month of first dose, revaccination annually
Haemorrhagic septicaemia (HS)	6 months or above	2ml SC	Revaccination annually
Black quarter (BQ)	6 months or above	2ml SC	Revaccination annually