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Popular Article

Care and Management of Newborn Calf

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Introduction

Calves play an important role in the development of the dairy sector of the country, as the future of the dairy herd solely depends upon the successful raising of young calves. Management of young calves in these days gaining a lot of importance as there is scarcity in availability of good quality future stock for either a dairy cow farm. Calf-care is not only essential for sustenance of the dairy industry but is also essential for preserving and maintaining our good quality germplasm. Important aspects in calf rearing are health management and proper nutrition. In India majority of the ruminants are reared by small, marginal and landless farmers and most of them do not follow general management practices (Tiwari, 2009). There is a need to make the farmers aware about importance of scientific management practices. The neglected and poor care of calves in these dairies is creating a great damage to the nation in terms of loss of good quality germplasm. Hence there is an immediate and persistent attention is needed especially in large commercial dairy farms about the significance of rearing calves for profitable and high economic returns in any dairy enterprise.

Removal of mucus

Normally cow will lick and dry the calf immediately after parturition, which may stimulate cutaneous blood circulation and respiration. Sometime primiparous cows may be nervous and inexperienced or cow may exhaust after a prolonged labour. Under such circumstances the mucus from the nostrils of the newborn calf should be wiped and cleaned with a dry towel. Under such condition the calf should be lifted by holding the hock in such a way that the head is down, so that the phlegm may flow off. The calf can also make to sneeze by tickling a twig of hay or dry grasses inside the nostrils.



Naval cord treatment

This is crucial because infections can spread quickly via the naval and result in catastrophic illnesses including joint ill and naval ill. It is very essential that the livestock owners take proper care of the naval cord after the birth of calf. Cutting the cord with a hygienic blade and then dipping the cord in an antiseptic solution is essential (Sharma and Mishra, 1987).

Feeding: divided into following steps

1) Colostrums feeding

A normal healthy calf gets up within 30 minutes after birth while weaker need assistance. Feeding of colostrum within the first hour of life is essential and should be continued for the first 4 to 5 days of life. Immunoglobulin like Gamma-globulins are found in high concentrations in the colostrum of mature cows in comparative to heifer animals. These antibodies are absorbed, giving the calf a protective shield of passive immunity and it have laxative property.

2) Whole milk feeding

Whole milk can be fed to calf from 4th day onward @ approximately 10% of body weight at divided doses twice daily for maximum of 2 weeks. Milk should be boiled and cooled to body temperature (37°C) before feeding. Milk feeding should be 3 or 4 times in a day during the first week and can be reduced to 2 times in a day up to 90 days of age.

3) Calf starter

It is first solid concentrate fortified feed with mineral, vitamin and antibiotics. In order to promote early intake, starter can be given as a pellet or coarse feed. To ensure healthy rumen development, make sure starter has adequate particle size, neither too powdered nor too dusty, as these conditions will decrease intake. A calf starter should be highly palatable. It should be high energy (70% TDN) and contain 20 per cent digestible crude protein. The constituents of calf starter may be altered according to the availability of feed in the region and cost.

4) Forage feed

Clean, leafy green legumes provide a healthy free-choice source of feed for young calves. Forages are a good source of fibre, which supports the development of the rumen's muscular layer and aids in maintaining the integrity of the rumen lining. To ensure freshness and promote intake, high grade fodder should also be provided in addition to calf starter.

Methods of calf rearing

1) Nurse cow method

In nurse-cow method 3 or 4 calves are allowed to suckle one nurse cow. To avoid calf



rejection the mucous at the time of calving is applied to all the calves to be adopted by the nurse cow and placed before her to lick and dry. Use of nurse-cow is an easy alternate way of raising calves and required least manage mental skills.

2) Weaning Method

Making the calf independent of its mother by separating the calf from its mother at zero-day or after some days of calving is known as weaning. Under early weaning system, the cow is not allowed to suckle its calf, instead, the cow is completely milked out and required quantity of whole milk or skim milk are fed to the calf.

Identification

Identification is crucial for maintaining records, ensuring correct nutrition, medication and improving care of new born calf. A tattoo, ear tag, and photo can be used to identify a newborn calf. The purpose of identification is to maintenance of proper records on the farm and helps in better management practices.

Disbudding

Disbudding is the removal of the horn bud of calves at an age of up to two to three months, by damaging the tissues around the bud in order to stop the bud from growing. It is usually carried out using a hot iron or caustic paste. The objective of disbudding or dehorning is to reduce injuries to handlers and prevent horn fracture.

Castration

Castration of bull calves not intended for breeding is highly recommended. This practice allows quality bull only to be reserved for breeding and make the other animal easier to handle. It is best to castrate calves as soon as the testes descend into the scrotum since the small calves are easier to handle.

Deworming

Buffalo calves frequently infected with neonatal ascariasis, so deworming should be done as soon as possible, ideally in the first week of life. To control the endo-parasites board spectrum anthelmintic drug should preferred like fenbendazole, albendazole and mebendazole. A dose rate for the therapeutic use is 5-10 mg/kg body weight depending on the severity of the infestation.

Vaccination

The calves should be vaccinated for the viral/ bacterial diseases i.e. F.M.D., H.S. and B.Q. in the early age of life. To ensure immunization and vaccination schedule with booster dose to be periodically.



Conclusion

The future productivity of a dairy farm depends on its calves, whose care and management could be compromised if current standards are not met. Therefore, prompt and ongoing attention is required, particularly in big commercial dairy farms.

References

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