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Popular Article

Care and Management of pregnant animals for successful dairy farming

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Introduction

Proper care and management of pregnant animal is must for production of viable young ones, adequate growth, good lactation yield and to prevent disease and abortion. Birth weight of the calves always depends on care and management of dam during pregnancy. Efficient raising of parent stock is must for successful dairy farming. This efficient raising involves making their micro environment comfortable by providing proper housing, feeding, watering, hygienic and sanitary conditions.

Housing

Proper housing of advance pregnant animal not only helps in protection from adverse climate, predators, theft etc. but also help in prevention of untoward incidents like fight and abortions etc. Animal shed should be constructed on dry and properly raised ground. Try to avoid water-logging, marshy and heavy rainfall areas as it may help in propagation of disease. The heights of the sheds at eves and center should be 1.5 to 2 meters and 3-4 meters high respectively. Roof should be either asbestos sheet or galvanized iron sheet. The floor should be pucca/ hard, even non-slippery impervious, well sloped (3 cm per meter) and properly drained to remain dry and clean. The floors shall be of moorum, brick on edge or cement paved. Now a day even rubber matted floors have become popular particularly in heavy sized high yielding animals. Maintain sanitary condition around shed using common disinfectants.

Pregnant cows are to be transferred into calving boxes two weeks before the expected date of parturition. Calving box should be constructed very close to attendant house for proper supervision. Here animal always let loose. Most of the time calving takes place either in the early morning or late night, thus presence of attendant mandatory. Do not allow them to mix with other animals that have aborted or that are suffering from or carriers of diseases like brucellosis.

Management practices during summer and winter season

It has been observed that animals eat less during summer to reduce the internal heat production, because of which their milk production goes down in summer. Similarly, heat stress is said to be the main cause of embryonic mortality, abortion and other complications. In order to keep animals comfortable and healthy, intervention needs to be made to reduce the temperature of micro-climate. Besides the provision of cool drinking water, fans and coolers can also be provided to animals. If this is not possible at least green shield by trees and shrubs can be made available around animal shed to reduce the temperature of micro-environment. Provide feed and fodder during the cooler parts of the day and protect pregnant animals from heat and direct solar radiation. Asbestos or galvanized roof can be painted with black inside and white outside to reduce the passage of solar radiation. Sometime, making thin thatch roof over the existing roof will also reduce thermo-conductivity to a great extent. Direct sprinkling water on animals or by sprinkles also helps to improve summer stress. Similarly, during peak winter, animal spend lot of nutrients to maintain the thermoregulation method. It is therefore, covering of window and doors with plastic sheet, provision of proper bedding material like paddy straw, 200-watt bulbs or blowers is very much essential. If pregnant animals are less, one can think of gunny bag jackets also.

Feeding

The feeding of dairy cattle is very important aspect in milk production, as feed costs about 60-70% of total costs of milk production. A pregnant heifer few days prior to calving must be fed liberally (steaming up). For steaming up heifers must be given 1.5 kg concentrate mixture. However, one must carefully watch the animal and increase or decrease the ration depending on whether the animal is becoming lean or fat. Provide adequate and clean water during day and time. A well balance ration is very much required for growth of fetus, for production of colostrum when she calves next and forming sufficient reserves of nutrients in the body of the cow for ensuring the next lactation. From 7 ½ months to 10 months of lactation cow may be fed 1 to 2 kg concentrate feed in addition to their nutrient requirements for the maintenance (1kg) and milk production, to

replenish the condition they lost during early lactation. Just a week or two before calving, one should start feeding the cows with high milk production potential, increasing quantity of concentrate to 'challenge' them to produce at the maximum level. This 'challenge feeding' will condition her digestive system for the increased amount of concentrate of early lactation and provide enough nutrients to initiate lactation on higher plane. There should be practice of feeding mineral mixture one month before the expected date of calving.

Care and management during calving:

Improper care and management during calving may lead to dystocia or retention of placenta. Calving consists of pre-calving, calving and post calving stages. Necessary care should be taken in all the three stages for successful calving.

Care and management before calving:

Minimum dry period of 50-60 days should be provided to all cows to ensure sufficient rest to the udder. Prior to calving (at least 7-10 days before calving) all advanced pregnant cows should be housed in calving pens for better managemental care and to ensure safe calving. The calving pens should be clean, dry, hygienic and spacious for safe and easy calving. The udder and teats of the high yielding cows become large, distended and tense just before calving. In acute conditions it is necessary to milk the udder before calving to provide relief to the cows.

Care and management after calving:

Equal attention after calving is required as it has direct impact on post-partum reproductive performance. Proper care and vigilance are necessary to ensure normal calving. Proper vigilance to common signs of parturition like increase in the size of belly especially on the right flank, stiff udder and teats, red and swollen vulva is important. Normally calving occurs within an hour after appearance of water bag. In case of delay, immediate veterinary assistance should be provided for safe calving. The average time taken for calving process is about 7-8 hours. It is generally observed that placenta is expelled naturally within 10-12 hours of normal calving. If the placenta does not expel within 12-18 hours of calving, external help is generally required for removal of placenta. In case of external manipulation, sufficient antibiotics coverage should be given.

Breeding

In any organized dairy farm efforts will be made to get calf in every 12-13 months. The involution of uterus in normal calvers is generally completed by 30-35 days after calving. So breeding can be resumed by 45 days post-partum in normal calvers to reduce the calving interval. If the cow does not show heat symptoms by 45-60 days after calving, she should be examined by veterinarians for necessary treatments. Careful and systematic heat detection is an important tool for better reproductive management. Fertility rate is maximum during the last eight hours of estrus. To achieve maximum conception rate, A.I. should be done preferably between 8-18 hours of estrus period. Use high quality semen preferably frozen semen of proven sires/bulls This increases conception rate.

Conclusion

Successful dairy unit is characterized by having a calf in every 12-13 months. This depends upon care and management of pregnant animals before, during and after calving. This includes their housing, feeding, hygiene – sanitation and their reduction of stress during winter and summer season. By following these management practices, we ensure good health and welfare of not only dams but also of their calves which is equally important for getting good profits and to get their full production potential.

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