



POPULAR ARTICLE

Early weaning management of dairy calves for the waterlogged ecosystem of Bihar

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Intricacies of the subject

Bihar is one of the highly floods affected states of India. Due to severe monsoon flooding around 8-10 lakh people are being affected every year 11 districts which increases up to 28 lakhs. As a consequence of flood, large areas of north Bihar face stagnation of water i.e. waterlogging situation which not only affect the human but also the livestock and poultry. Dairy animals like cattle and buffalo face lot of nutritional issues to feed scarcity which affect their milk production. Keeping in view of the importance of milk in daily life of humans, recent advancement in management practices need to be explored for scientific operation of dairy farms. Weaning is one the important aspect of managing dairy animals with dual focus on dairy-milch animal productivity as well as growth and survival of calves which are called as future of dairy herd.

Introduction

Weaning is defined as separation of calves

from their mother after birth and rearing them under artificial system without suckling. The weaning in dairy calves in traditional management system occurs till lactation period or 6-7 months of age. The practice of weaning may be performed as early as possible i.e. immediately at birth or partial weaning after few months.

Advantage of early weaning

- Early weaning has become more popular at dairy farm because it helps the dairy producers in following ways
- Actual milk yield potential of animal can be estimated by weaning process, because when a calf suckles, it's difficult to estimate the amount of milk fed by calves during suckling
- Calves can be grown independently without suckling however management practices must be upgraded
- Feeding of weaned calves can be easily done as per the standard feed requirement. Over and poor feeding of calves is avoided.



- Weaned cows are less prone to suckling stress and biting wound while suckling by calves, this can reduce chances of mastitis.
- In absence of suckling stimulus weaning dairy cows are supposed to express more prompt heat symptoms than suckled cows.

Resting of dairy cattle after milking



Dairy producers while adopting early weaning practice need to pay special attention to the health and nutrition programs for early weaned calves. A good health program starts with proper vaccinations and includes emphasis on calf nutrition. Early weaned calves require higher concentrations of nutrients in the diet than calves weaned at the traditional times.

Weaning protocol

Weaned calves with milk and solid feed



- Take the record of live body weight of calves (birth weight)
- Separate the calf and allow to feed colostrum, the 1st liquid milk secreted from the mammary gland which is rich in

- Weaned dairy cows have improved pregnancy rates.
- Early weaning can reduce water requirements of cows by up to 60%, hence helpful in saving of valuable water.

Cow-calf affection



Weaning is the most critical phase of the life of young dairy animal. The calves are separated immediately after birth and shifted to separate pen (compartmental house) and exclusively raised on hand feeding system. Birth weight of calf is recorded and based on birth weight of live body weight milk feeding is done through pail or nipple bottle. Following care must be ensured while weaning calves immediately after the birth.

Health monitoring of weaned calves



- protein, minerals, vitamins and most importantly the immunoglobulins which protect the calves from neonatal diseases.
- The calves should be fed @ 1/10th of the body weight in 2-3 equally divided doses.



- Ensure that naval cord of the calf is cut and dipped in disinfectants to prevent naval ill
- After 2 weeks calves should be allowed to start on high nutrient rich solid diets like concentrate mixture. The calf should also be encouraged to take fodder.
- Milk feeding can be gradually reduced with increased intake of concentrate, green and dry fodder
- The concentrate mixture should have 20-24 % crude protein and above 70% Total Digestive Nutrients (TDN) in their diets.

Learning by calves to feed milk

Dairy calves should be allowed to learn the milk feeding by self, however, initial training is essential. Approach the calf while offering the milk in a pail. Allow your one finger to suckle and dip it in milk, after few days, calves will be easily trained for self-feeding.

Shelter management of weaned calves

Provide indoor and outdoor housing facilities. Minimum housing space for indoor housing per calf should be 1 square meter up to 3 months, whereas above 3-12 months it should be 2 m². Almost double the area should be given for outdoor housing of calves with respect to indoor housing. Calf house should be at raised surface so that it can be easily cleaned without stagnation of water.

Health management of weaned calves

Regular monitoring of calves' health is very important. A few healthy signs, like normal

body temperature (100–101-degree Faren height), calves should have a good appetite, look active and alert, be free from febrile conditions, prompt to eat after offering milk and green or dry feed. They should be free from any kind of visible wound etc. Deworming of calves can be done at 3 weeks of age with piperazine; thereafter, broad-spectrum anthelmintic 4-6 months onwards. Follow calf vaccination as per the standards against brucellosis, foot and mouth disease, hemorrhagic septicemia, tetanus etc.

Challenges of early weaning in dairy calves

Certain difficulties may be faced while following the weaning practices at a dairy farm; these challenges are

- Increased labour requirement.
- Requires facilities to feed calves.
- Higher nutritional requirements of early weaned calves
- Increased focus on vaccinations and health programs is required.
- Sometimes cows may refuse to let down or milk, whereas calves also feel distressed

Although these challenges make the weaning process difficult, with proper care and scientific management, there is a chance of high success in weaning, which will encourage scientific dairy farming with enhancing milk production at farmers' fields as well as organized dairy farms in difficult areas like flood-prone and waterlogged ecosystem of Bihar and other parts of the country.

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