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Management of Heifers Turning to Adult Cows

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Heifers are the animals that are not given birth to calf yet, when they experience calving the stress level elevate to higher level as compared to other adult cattle that had given birth previously. So, heifers experience this stress most. Everything is novel for them like, a newborn calf, new calving pens, and milking operation. Farmers need that their heifer should swiftly adjust after calving and begin milk production. And after that, will be healthy enough to become pregnant and begin the process all over again.

To cope up with this stress we have to adopt some strategies to improve heifer's immune system at the time of transition. Also, we have to ensure that heifers are prepared for success when they join the milking herd. There are a few important management techniques we may use in the months before calving to ease the transition to milking cattle.

Selection of Heifer

Selection should be made for the largest heifers because they reach puberty earliest as compared to smaller heifers. Heifers should be structurally large, physically sound, in good health, and have good growth potential. For selection records could be very helpful, we can refer to performance records to determine growth potential and to identify heifers from high production cows. Heifers those are obese at weaning have a tendency for reduced milk production ability.

Heifer Nutrition

- To ensure birth to a healthy calf from first time calvers, it is important to ensure that their nutritional needs are being properly met. So, while formulating their diet, keep care that feed contain high-quality ingredients. Heifers can be fed a variety of feed ingredients if the rations are properly formulated to meet their nutritional needs in-terms of energy, protein, minerals, and vitamins.
- Proper nutrition is necessary to reach the goals of early puberty, early breeding, and proper body weight and size at calving. Keep in mind that formulated ration should be sufficient for adequate growth, but do not make animal obese. Heifer should have 60-65% of mature body weight at the time of breeding. If this body weight goal not achieved then it could cause problems during calving e.g., Dystocia for low milk production afterwards.

We can classify heifer based on their stages of growth as following:

- **Weaning to nine months of age**. Goal should be lean growth of muscles and skeletal tissues, achieving 30% of mature weight at six months. This will result in increased body frame size while maintaining a consistent body condition score. Improved skeletal development results fewer calving difficulties.
- **From 9 months to mating:** heifers should achieve 43-47% of mature body weight, one to two months before mating and shall continue to grow till mating (60% of mature body weight) for improved conception rates.
- **Mating to calving:** Live weight should be gained targeting 90% of mature body weight at pre-calving stage. Body condition tells how well an animal has been fed.

Managing of the housing environment:

In order to prepare a heifer for calving, reduce environmental stress so that we can maintain better growth rates and improve general health. For this purpose, following techniques can be incorporated:

- Provide sufficient of bedding and ensure that the heifer's bedding should be dry, absorbent, non-irritant and soft.
- Make housing environment of heifer dry, well-ventilated, and draft-free, this could be achieved with well-planned housing system.
- Avoid overcrowding and give animals enough space to eat to lessen stress and competition. Recommended space allocation is very important to make animal feel comfortable during confinement.

- Housing facilities should be such that animals remain protected from the environmental elements and temperature fluctuations. The immune system of a heifer might deteriorate when exposed to extreme climatic changes, and this will lead to diseases or decreased production.

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Minimize potential health problems: Heifers that are healthy from birth through pregnancy are often less likely to have health issues after giving birth and are better able to adjust to life in the milking herd. Pregnancy tests, diet, and vaccinations are essential for sustaining health.

- **Vaccination:**

Replacement heifers need to be on a good health program. They should be vaccinated prior to breeding for brucellosis, vibrio, leptospirosis, IBR. (red nose), and other diseases prevalent in the area. A good vaccination program is a good insurance policy. There are a lot of vaccines out there, and not every option is right for every operation. It's important to work with a veterinarian to understand what diseases are on the farm that requires vaccination.

- **Pregnancy check:**

Regular heifer pregnancy checks may seem unimportant, but not knowing a heifer's reproductive status can be expensive. The cost of lost milk production and additional raising expenses per heifer for every month the first calving is postponed beyond 22 months can be very high. Pregnancy tests should ideally be performed around 30 days after breeding and once more a month later to catch any pregnancy losses.

- **Calving Difficulty**

Dystocia is a great concern for farmers with first-calf heifers, as it is the primary cause of calf losses at birth. The major causes of dystocia in first calf heifers are either oversized calf or an undersized heifer. A large calf and/or a heifer with a smaller pelvic girdle cause difficulty during parturition. To reduce calving difficulties farmers should focus on to developing heifers that have larger body size at calving. If heifers weigh around 80% to 85% of their mature body weight at calving, they should have less dystocia. Also measure pelvic area of heifers and those with small areas should be culled.

- **Culling**

Making decisions about culling can also be aided by monitoring disease incidence. Any animal that has received repeated medical attention for a disease should be eliminated before breeding starts. Also eliminate boor producers or animals those have repeated breeding problems.

Every heifer ought to have a report card that includes crucial details like growth rates, disease incidence, and vaccination records. These records can give us more insight into the possible causes of heifers' subpar performance prior to or following calving. Records should assist us in determining out what's wrong and what could be the remedial actions.

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