

Top priorities for calf rearing

Changes to calf rearing systems should be made based on evidence and circumstance, to avoid unnecessary cost without a compromise in animal welfare. This article discusses some of the top priorities of calf rearing to achieve maximum benefit with minimal cost.

COLOSTRUM

True colostrum is the first milk produced in the udder. Remember the three Q's of colostrum management: Quickly, Quality and Quantity.

QUICKLY:

- Pick up calves from the calving area twice daily and actively feed true colostrum (by teat or tube) immediately.
- If only once daily pick up is available, store true colostrum with potassium sorbate in the refrigerator and actively feed all calves as soon as possible after birth in the calving area.
- Record all colostrum feeds (spray paint/whiteboard) to ensure no calves are missed.

QUALITY:

- Colostrum quality declines from the point of calving. Collect and milk fresh cows twice daily to ensure collection of the best possible quality colostrum.
- Colostrum production starts ~5-6 weeks prior to calving. Ensure all cows have a minimum dry period of 6 weeks as short dry periods will compromise colostrum quality.
- Measure all true colostrum with a Brix refractometer and separate into two 'grades': good ($\geq 22\%$ Brix) and poor ($< 22\%$ Brix). Reserve good colostrum for newborn calves and feed poorer quality colostrum as a second feed where appropriate. Only mix colostrum of the same grade: good with good and poor with poor.

QUANTITY:

Quantity will depend on quality:

- Good quality colostrum: feed 2x 2L in the first 12-24 hours. Larger calves can cope with 4L in a single feed.
- Poor quality colostrum: feed 2 x 3L in the first 12-24 hours.

HYGIENE

- All equipment should be washed after each feed to prevent build-up of pathogens.
- Collect colostrum into stainless steel buckets as these can be washed more efficiently than plastic ones.
- Wear gloves when handling all calves to help prevent disease transfer from calf to calf but also from calves to yourself.

HEALTH MANAGEMENT

- Stagger stressful events such as disbudding, weaning, vaccination and turnout. Calves will cope with small amounts of stress but one large stressor can predispose to disease.
- Ensure all staff know the early signs of disease so that sick calves can be identified and treated promptly.
- Develop customised treatment protocols for common calf diseases with your veterinarian, to ensure effective and safe treatments are used.

ENVIRONMENT

Calf sheds come in all shapes and sizes but there are some basic rules that apply to any set up.

ALL-IN ALL-OUT (BATCH) SYSTEM

- Rear calves in batches as a group of similar age and immunity. Aim to have < 7 days between the oldest and youngest calf in the pen.
- Fill each pen sequentially as calves are born and once that pen is full, start a new pen. Do not move calves from pen to pen as this allows easy transfer of disease.
- Calves stay in their pen until they are all moved out, as a batch.
- Aim to clean the pen prior to it being used again.

SOLID PARTITIONS

- Unlike mesh/gate partitions, solid partitions help prevent disease transfer from pen to pen via manure and nose-to-nose contact
- Partitions should be 1.5m high and made of a non-porous waterproof surface that can be easily cleaned.
- Materials include corrugated iron, tin, corflute or rubber (ag. Agbelt). Wood is not suitable as it cannot be cleaned effectively.

FEEDING SYSTEMS

- Access to ad lib fresh water and calf starter (min. 18% crude protein) from birth is essential.
- Water can be accessed using buckets in car-tyres or held in place with bungee cords.
- Calf starter should be fed in raised troughs (70cm height) to help avoid contamination and wastage.

Speak with one of our vets about simple, cost-effective ways to improve your calf rearing system and monitor your calf health.



Adapted from an original article by ProDairy veterinarian Dr Gemma Chuck in the Australian Dairy News, June 2016.