

Housing Calves

The main objective of any calf housing system is to provide them with a comfortable, clean and dry space that is appropriately ventilated with easy access to feed and water. Depending on management and labour availability these systems will vary from farm to farm.

However a well-designed housing system, whether it is a set of temporary pens under a hay shed or a purpose-built facility, will certainly minimise disease risks, improve growth rates and make management easier.

Factors to consider when designing a calf rearing area or assessing your existing facilities;

1. Cost

It is important to think about overall costs such as operating, maintenance and repair costs when planning a calf housing system. Systems with lower initial costs may not make economic sense if they are less durable with higher maintenance and repair costs. For example “if a farmer spends \$10 for supplies and \$10 for one hour of maintenance labour per individual wooden hutch per year, this adds up to \$200 over the 10-year lifespan of a wooden hutch system . a calf raiser with 500 calves could spend \$100000 on maintenance costs for their hutches every 10 years “ (Progressive Dairyman, 2017)

2. Shed capacity

Avoid overcrowding to reduce risk of disease and minimise competition. Allow at least 1.5 m² per calf for group housing or 2.0m² per calf for individual pens as a minimum. As calves grow older, these spacing should be increased to 2.5m² or greater. It might also pay to factor in spare space for sick calves, sales calves and for cleaning between batches of calves.

3. Location

Ideally calf facilities should be positioned towards the sun and away from prevailing winds where possible. Other factors to consider are- convenience for workers to feed and treat calves, proximity to extra bedding material and liquid feed, proper drainage, protected from farm effluent and availability to water and electricity.

4. Labour

Calf rearing facilities need to be labour efficient but not compromising calf health or performance.

5. Ventilation

Good ventilation is paramount for a comfortable environment in cold and hot weather while reducing the risk of diseases in calves. Having openings at both ends of a shed will ensure that any build-up of pathogens, ammonia and other gases can be effectively moved. With this comes the challenge of providing an environment that is draught free.

6. Air Space

Allow a minimum air space of 10m³ per 100 kg live weight or 6 - 8 m³ per calf. Increasing air spaces will reduce the exposure of air pollutants to calves.

7. Cleaning & disinfection

Maintaining a clean calf rearing facility can significantly lower disease risks and improve the comfort of calves. Thorough cleaning involves removing any bedding and dirt and allowing pens to completely dry out between batches of calves. Pressure cleaning rails, gates, walls and feeders to remove stubborn organic material (eg. manure, saliva) before using a broad spectrum disinfectant is recommended.

8. Flooring

Some common calving facility floors include solid (concrete or earth based) floors with bedding, or on raised mesh or slatted floors which allow faeces and urine to pass through. However, the latter has been associated with more foot and leg issues. Placing rubber mats can be a way to provide some comfort but ensure that there is enough space underneath to clean out.

9. Bedding

Selecting a good quality bedding is important as it helps maintain body temperature and prevents heat loss. This means that less energy will be spent keeping calf warm and more directed to growth. At least 15cm deep soft bedding should be provided at all times. Calf bedding can be untreated wood chips/shavings, rice hulls, sawdust, straw, or shredded paper – in any order of preference. Consider availability, price and compaction level when selecting bedding for your system. We would recommend feeding any forage off the ground. This keeps it cleaner and helps to train the calf to eat forages instead of its bedding– although not always possible.

Ideal temperature for a calf is 17 °C and Ideal relative humidity is 65 %

10. Social contact

Calves should be housed within sight and sound of other calves.

11. Feeding space Whether you prefer bucket feeding, teat feeders or automatic feeding system...ensure all feed and water containers are: easily accessible, placed on the outside end of pen to minimise risk of pathogens entering through footwear or equipment and contamination by organic material such as manure and urine. Where concentrates are fed, long troughs are preferred to improve access by all calves specially shy feeders. Ideally trough space should be 35 cm per calf. Liquid feed (water and milk) should be positioned at the bottom of a slope for drainage and away from concentrates/fibre.

