

Calf housing



During the preweaning period, there are many design options for calf housing.

To ensure successful calf health and development, prioritize a comfortable, hygienic, dry environment, while also incorporating worker-friendly features for ease of management.

Housing	Pros	Cons
INDOOR Roofed structure with 4 closeable sides	<ul style="list-style-type: none"> Facilitates thermoregulation Increased feed efficiency Maintains optimal water and milk temperature More worker-friendly environment 	<ul style="list-style-type: none"> Higher construction costs Potentially higher microbial charge Challenge of controlling air quality Potential heating costs
OUTDOOR Does not involve a roofed structure with 4 closeable sides (ex. Hutches only, Hutches under a roofed structure with less than 4 closeable sides, etc.)	<ul style="list-style-type: none"> Limited microbial growth More flexible management of ventilation Lower housing costs 	<ul style="list-style-type: none"> Increased costs for bedding and for feed Maintaining milk and water temperature Labor and management challenges for cleaning (especially in winter) Heat stress mitigation in summer

Adequate resting space promotes calves' wellbeing and growth and facilitates optimal air quality and ventilation



A well-designed facility layout supports the effective implementation of regular hygiene practices and a biosecurity plan. Promote a hygienic and safe environment for calf rearing by:

- Designating areas for disinfection stations
- Having proper floor drainage
- Having pen walls and floors that are easy to clean and disinfect
- Creating segregation zones for sick animals

RECOMMENDED DIMENSIONS

Newborn calf's pen size	28-30 ft ²
Bedded space per calf	35 ft ²
Feed bunk space	All animals must be able to eat at the same time
Feed manger wall throat height	12-16 in (30-40 cm) above the floor
Feed manger floor height	Elevated 3-4 in (8-10 cm) above calf alley
Maximum water trough height	0.5 x HH* (16 to 18 in from the ground) *HH : Hip Height
Milk feeding nipple height	Shoulder height (approx. 24 in from the ground)



Calves can be paired/grouped early, by 2-3 wks of age



Groups of **10 calves or fewer**

Prioritize Hygiene



- Use dry and ample bedding
- Isolate sick or weak calves
- Control flies and insects
- Cleaning equipment available
- Drains for wash water available
- Washable materials

Mistakes to avoid:



- Avoid denying calves aged 3 days or older access to water
- Avoid installing a complex water trough (for which calves must understand how to use in order to drink)
- Avoid using individual pens with solid sides that restrict air flow
- Avoid having an unclear or no pen disinfection protocol