

Section 5

Individual and Group housing



Introduction

Individual housing of calves, either indoors or outdoors, is associated with improved calf health. However, European legislation (S.I. 14/2008) encourages group housing for animal welfare reasons. In addition, group housing systems allow for reduced labour input and space requirements. On many farms calves are individually penned for the first few days after birth to ensure that they receive adequate colostrum. From seven days of age they are group penned.

- ① What is the age limit for individual calf housing?
- ② What are the space requirements for individually housed calves?
- ③ The use and design of isolation pens.
- ④ What are the benefits of group housing?
- ⑤ What are the 'do's and don'ts' for successful calf grouping?
- ⑥ What are the space requirements for group housed calves?
- ⑦ Housing with automated feeding.
- ⑧ Outdoor v indoor housing systems.

Individual and Group housing

Individual calf housing

Isolating young calves from birth to a few weeks of age can help to prevent disease transfer. Individual calf houses must meet a certain specification to optimise their growth, health and well-being. Each calf pen is a micro-environment within the overall facility, so each pen needs to meet calf comfort standards.

1 What is the age limit for individual calf housing?

Under European legislation (S.I. 14/2008) calves greater than eight weeks old can only be kept in individual pens if a registered veterinary surgeon certifies that its health or behaviour requires it to be isolated in order to receive treatment. In addition, it prohibits the use of solid walls in individual calf pens.

2 What are the space requirements for individually housed calves?

- The pen width for a calf from birth to eight weeks of age must be the height of the calf at the withers as measured in the standing position.
- The pen length must be the calf length plus 10% (measured from the tip of nose to the caudal edge of the pin bone).
- Typically, an individual pen would be 1.0m wide by 1.5m long, but 1.7m is recommended, especially for isolation pens.



Calves must be able to see neighbouring animals.

3 The use and design of isolation pens.

Isolation pens are important to reduce the spread of disease/infection and to allow for efficient treatment of a sick calf. Solid concrete block wall divisions to roof level should be used where an isolation pen is incorporated into the building. All drainage from isolation pens must be separated from any other drainage system.

Isolation pens should be provided with adequate daylight, draught-free ventilation and a water supply. Isolation pens should have a separate entrance when incorporated in a calf house building.

Group housing

4 What are the benefits of group housing?

Pair or group housing of calves soon after birth can increase weight gains and intake of solid feed. In addition, group housing aids the behavioural and social development of calves, increasing their learning ability and allowing them to adapt better to new environments.

5 What are the 'do's and don'ts' for successful calf grouping?

Do	Don't
<ul style="list-style-type: none"> • Group calves by age and size. • Keep calves in stable groups for higher daily live weight gain and reduced prevalence of diarrhoea and respiratory disease. • Ideally 4-6 calves per pen for the first week (depending on the farm and progress of the calves). • Subsequently, keep calves in groups of 12 or less, do not overcrowd. • Practice all in-all out systems. 	<ul style="list-style-type: none"> • Mix younger calves with older calves. • Group calves at two weeks of age. • Allow >30 calves to share the same air space. • Allow calves to share air space with older cattle. • Mix animals from different pens. • Return isolated calves to their original mob.

KEY TIPS:

Don't put ill or stunted older calves into a group of younger calves to 'bring them on'.

6 What are the space requirements for group housed calves?

The space required for calves in group pens varies according to their weight. Calves housed in small groups or larger groups require 1.8m² of pen area and a total floor space of 2.3 to 2.5m²/calf floor area (including the feed passage). The minimum permissible pen floor area per calf is 1.5m².

For large herds, a shed with two rows of pens with a central passage is suitable. Passages should not be less than 1.2m wide.

Table 1. Space allowances for group housed calves

Calf Weight (kg)	Approximate age (months)	Space Allowance for Group Housing (m ² / calf)	Recommended area (m ² / calf)
45	0	1.5	2
46-99	0-2	1.5	3
100-149	3-5	1.5	4
150-220	6-8	1.7	5

7 Housing with automated feeding.

With automated feeding, farmers tend to group calves into large groups at younger ages. This means that sick or problem calves may not be identified easily. Additionally, calves tend to lie in groups in sheltered areas of the house which can cause a micro environment of stale air and increased risk of disease.

In order to avoid these issues, farmers should:

- Avoid using very deep pens (long and narrow).
- Ensure a good internal air flow pattern.

8 Outdoor v indoor housing systems.

Outdoor rearing refers to systems where calves are either outdoors at all times or have the possibility to move freely between outdoors and an open shelter. Either system, if well managed, is suitable for calves, with no difference in weaning weight between those reared indoors or outdoors.

Healthy calves are readily able to deal with outdoor temperatures as long as they receive adequate amounts of energy and are provided with a dry, well-bedded and draft-free shelter and lying area. Outdoor housing systems are superior for pneumonia prevention compared to indoor housing. Hutches are associated with lower morbidity and mortality in dairy calves.



Calves reared in outdoor hutches or shelters, whether homemade (left) or bought-in (right), suffer fewer disease incidences than calves reared indoors.

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Tips for successful outdoor housing systems:

- Unweaned calves must have a roofed shelter.
- The amount of milk or milk replacer fed may need to be increased in very cold conditions.
- If calves are to be housed in individual outdoor hutches, move them in straight away.
- If calves are being moved from indoors, try to do so under good weather conditions.
- For young calves, straw is the preferred bedding material.
- Always place mobile calf housing in areas sheltered against the prevailing wind.
- Move the shelters regularly if the area is getting poached, contaminated or dirty.
- All outdoor shelters and hutches should be appropriately ventilated.
- Ideally, allow at least 1.2 m² space per calf.

KEY TIPS:



Providing two shelters and placing them in a 'v' shape facing away from the prevailing wind will provide good protection for calves.