



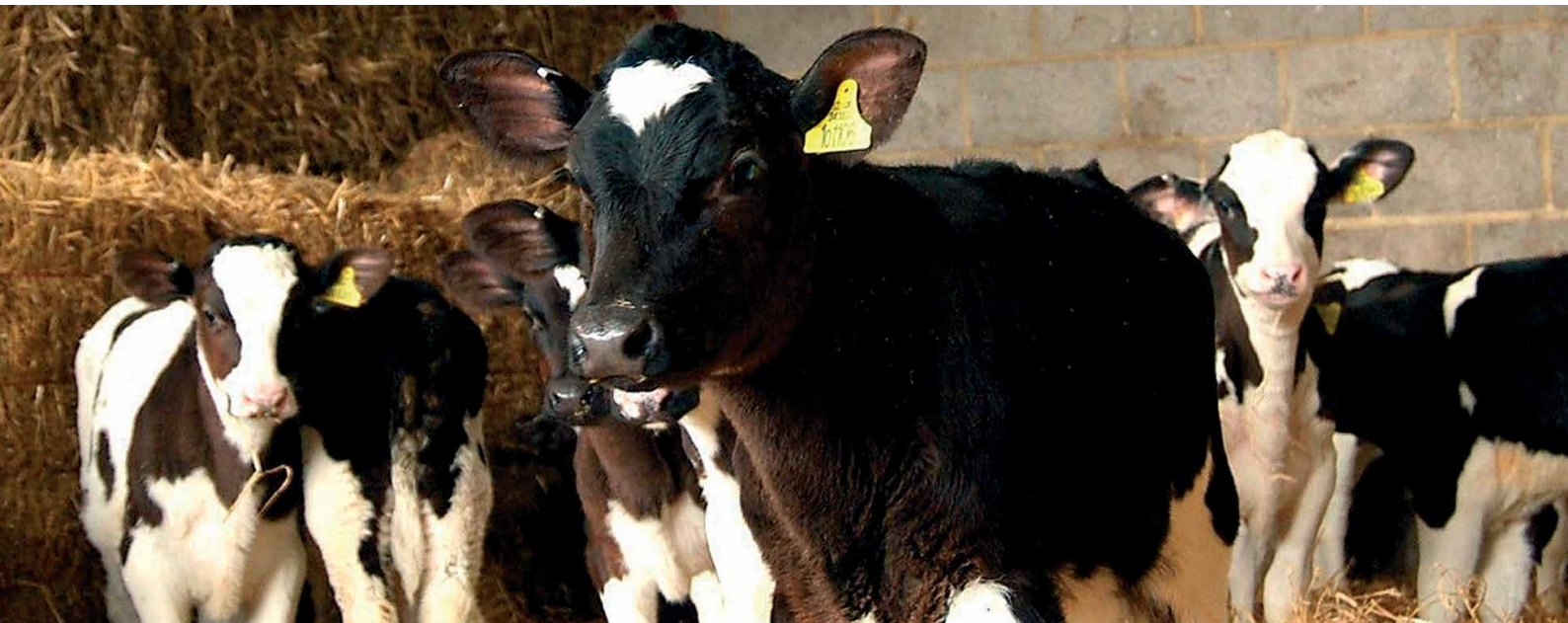
OPTIMISING THE ENVIRONMENT FOR IMPROVED CALF HEALTH

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Diseases are often multifactorial and environment plays a key role on the presence of disease on a farm. Use some of these key points to optimise your calves' environment.

GROUPING CALVES

- ◆ There should be no more than 6-8 calves/group sharing the same pen.
- ◆ Groups should be made up of calves of a similar age in the same air space. Older calves can be a reservoir of infection for the younger calves with weaker immune systems.
- ◆ The following stocking densities according to animal weight are recommended:
 - » < 150 kg: 1.5m²
 - » 150 - 200 kg: 2m²
 - » > 200 kg: 3m²



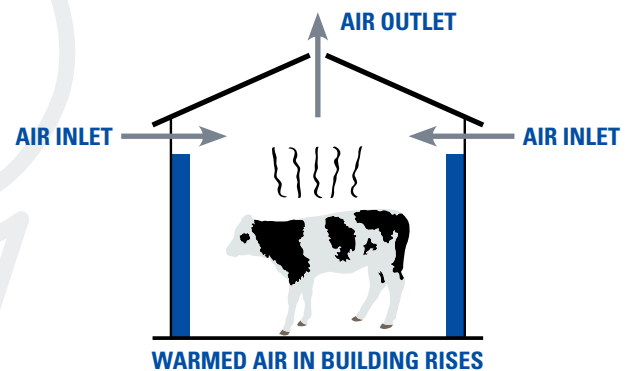
BEDDING AND TEMPERATURE

- ◆ Bedding should be clean, dry and plentiful to provide comfort and warmth – nesting scores can give a good indication on the correct bedding provision.
- ◆ The thermoneutral zone of a calf is 10-25°C. If the outside temperature drops below this the calf will be using up its energy just to stay warm. You can help the calf maintain its temperature with the following:
 - » Calf jackets
 - » Heat lamps
 - » Deeper bedding
 - » Increased milk feeds



VENTILATION AND HUMIDITY

- ◆ Air movement is essential to bring fresh air into the building and remove moisture, heat, gases and pathogens in the air.
- ◆ However, excessive air speed at animal height causes **wind chill** and should be avoided, especially in youngstock.
- ◆ Buildings should be constructed and managed so that they ventilate not only when the wind is blowing, but when the wind speed is low or zero. At that point, the building can work by the so-called 'Stack Effect'.
- ◆ The stack effect works by the accumulation of energy from body heat which rises taking the moisture, gases, dusts and pathogens with it. If there is a competent outlet in the roof, the warm air will leave requiring an equal volume of clean fresh air to be drawn in through the inlets.
- ◆ Youngstock may not produce the required amount of body heat to initiate this process and so it is important to check the ventilation to your housing. The following tools for checking ventilation are inexpensive and readily available:
 - » Smoke test (which must be performed with animals in building to test the 'Stack Effect')
 - » Anemometer (measures air speed)
 - » Hygrometer (measures humidity)



Optimising the environment for improved calf health does not necessarily require new sheds and high costs; speak to your vet and housing supplier about some simple and cost effective fixes which you can implement on your farm.