

Protecting young calves from cold stress



Temperature matters

- Young calves are very susceptible to low temperatures
 - They are on highly digestible feed and are not yet ruminating (so less heat is generated by digestion)
 - In the first week of life, calves will start using energy from feed to keep warm at temperatures less than 15°C
 - High risk calves (difficult birth, twins) will feel cold at higher temperatures
- By the 4th week calves are more robust and will not 'feel the cold' until about 0°C
- High moisture levels and increased air speed (draughts) will dramatically increase the susceptibility to cold stress
 - Draughts of only 5mph will make calves feel 8-10°C colder

Impact of cold stress in young calves

- Energy is diverted from growth to maintaining body temperature
 - Growth rates will decrease
 - Increased susceptibility to disease





Preventing cold stress

- Have a plan for when cold stress is likely to happen
 - When ambient temperature drops below 15°C
 - At higher temperatures for high-risk calves
- General housing considerations
 - Provide effective barriers to draughts at calf-level
 - Provide calves with places to shelter
 - Plastic and timber are better insulating materials than concrete and steel
 - Promote drainage of moisture
 - Provide calves with plenty of bedding to keep them dry and allow them to 'nest' in the straw
- Specific intervention measures
 - Provide calf jackets
 - Provide external heat source close to calves
 - Increase feed rates during periods when cold stress is likely
- Increase volume fed
- Increase concentration of milk powder

