

CALF JACKETS

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Why are calf jackets useful?

Calf jackets are an aid to help reduce the effects of cold stress on young calves. Cold stress occurs when the environmental temperature that the calf is exposed to is below their Lower Critical Temperature. This means that below this temperature a calf will be using energy for keeping warm which results in reduced growth rates and reduced energy available for immune function making them more susceptible to calfhood disease also.

A calf under 4 weeks of age has a lower critical temperature of 10°C (50°F), therefore the calves that benefit most from the use of jackets are those under 4 weeks of age.

From 4 weeks of age until weaning a calf is more resilient to cold stress and generally will not experience it unless temperatures drop below 2°C (28°F).

We can combat cold stress by reducing body heat loss in cold temperatures through use of calf jackets and/or increasing feed rate to compensate for energy loss.

When to use calf jackets:

- Decide on set temperature for your system, e.g. 10°C
- Agree starting protocol with staff: e.g.. 3 consecutive night-time minimum temperatures below e.g.10°C
- Calves must be dried off fully before using jacket
- Place clean jacket on every calf below one week of age and on entry to calf house or as soon as dry after birth

What else can be done to reduce cold stress?

- Dry hair - A clean, dry hair coat provides greater insulation from cold than a wet, matted coat
- Fluffy bedding - if calves must lie on a concrete, rock, or sand surface, heat will be transferred from their body to the resting area; thick, dry straw or sawdust provides more insulation. In some situations, it may be beneficial to change bedding type change with the season, adding straw as temperatures begin to drop. Fluffing up the straw if used to allow calves to 'nest' will also help reduce heat loss
- Air flow - drafts in the calf housing will increase heat loss. Less than 1m/s is good
- Nutrition - quality and quantity and timing of colostrum; energy density and dilution of milk powder, adequate intake

Calves at higher risk of cold stress include:

- Genetics - Jersey calf will feel "cold" before e.g. Charolais calf
- Low birth weight calves
- Calves who have had a protracted calving
- Calves with any health issues or reduced feed intakes



Other considerations when using calf jackets:

- When using calf jackets, be sure that calves do not sweat under them during the day. The resulting wet hair can quickly chill calves when night-time temperatures drop. This would clearly negate the positive effects of the blanket

Removing calf jackets:

- Know the weather forecast; steady or rising temperatures OK, falling temperatures, beware removing jacket too early
- Temperatures when calf jackets can be removed will be dependent on age. Calves more than three weeks of age can have them removed when temperatures over 2°C, calves of 2 weeks can have them removed when temperatures over 5°C and calves of one week of age and under can have them removed when temperatures over 10°C.
- Refer to recent night-time minimum temperatures
- Consider individual calf condition; feed intake, health, growth rate
- Remove jacket in morning not afternoon
- Breathable jackets can be left on even with daytime temperatures upto 19-20°C if night time temperatures fall below 10°C
- Jackets should be disinfected between use by different calves to prevent the transfer of scour bugs such as Rotavirus, Cryptosporidia and E.coli
- This can be achieved by rinsing the jackets if heavily soiled, then putting the jackets through a washing machine on a hot wash of 40-50°C with normal washing detergent
- Line dry or dry overnight in aired room. Do not tumble dry.

