



Stress in Calves

Why it matters and how can we reduce it

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Stress is a significant factor that can adversely affect the health and performance of young calves. Understanding the main stressors and the impact they can have on calf health is important as they can have lasting effects which negatively impact future productivity.

Stress is a natural response to perceived threats or discomfort. At times of stress, the 'flight or fight' hormone called cortisol is released which primes the body to escape immediate dangers, but prolonged or intense increases in stress levels can have significant negative effects on calves, including:

- **Reduced immunity leading to increased susceptibility to disease.** Cortisol down regulates the production of immune cells. Studies have shown that stressed calves have lower levels of immunoglobulins which are key for fighting off disease
- **Reduced intakes which can cause poor daily live weight gain.** Stressed calves often have reduced feed intake and poor feed efficiency. The energy that would normally be used for growth and development is instead diverted to cope with stress, resulting in lower weight gains and delayed weaning
- **Behavioural changes, including more aggressive or timid behaviour.** These can make handling more difficult and can affect their ability to integrate into the herd



What about the unavoidable stresses associated with calf rearing?

Disbudding

Don't leave it too late- Calves should be disbudded as soon as the horn bud can be easily felt. The smaller the horn buds, the easier and quicker the procedure will be. Therefore, it is recommended to disbud between 2–4 weeks of age.

Avoid performing disbudding during times of stress- such as when calves are already undergoing other stressful events (e.g. weaning, transport). Overlapping stressors can lead to greater negative effects on calf health.

Pain relief- an effective cornual block using local anaesthetic + metacam dosed accurately are both essential to reduce stress associated with pain. Test the area around the outside of the horn bud with a needle; if the anaesthetic is working, the calf will not flinch.

Consider sedation- calves can be 'knocked down' which makes restraint a lot easier and prevents head shaking. Needs to be given by a vet so worth planning ahead and tying in with other routine vet work.

Proper restraint and well maintained equipment- make the job as easy and quick as possible. Stressed people often results in stressed calves.

Weaning

Is it the right time?- calves need to be able to digest and utilise a non-milk diet by weaning. A good indication that calves are ready to wean is eating at least 2kg of concentrates per day for 3 consecutive days. It's important not to guess, if calves aren't eating enough by weaning they are likely to suffer growth checks.

Minimise other changes- weaning will always be stressful for calves but minimise other changes around weaning such as social changes and housing. Keep nutrition as stable as possible by using the same concentrate/forage pre and post weaning.

New product: FerAppease

FerAppease is an oil-based solution containing a synthetic analogue of maternal Bovine Appeasing Substance (MBAS). This is designed to reduce stress in cattle by mimicking a natural substance released by lactating cattle to calm their calves. Similar products have been on the market for cats and dogs for well over 20 years, they are well backed up by scientific studies to show they are effective in reducing stress and anxiety.

Studies are still limited when it comes to FerAppease, the trials conducted so far have been small and based on systems in the United States. Further research is needed but initial findings do indicate a positive effect on daily live weight gain and disease incidence when used during stressful events such as weaning and disbudding.

Calves will always experience a degree of stress during rearing. However, it is worth considering how to minimise this on your own farm due to the detrimental effects it can have. There are often simple, inexpensive changes which can be made to improve calf welfare during times of stress. Please have a chat with your vet or call the office if you would like to discuss anything in further detail.



Zoe Williams

How to use?

For adult animals: Apply 5ml of FerAppease to the poll area and a second 5ml application to the skin above the muzzle.

For youngstock: Apply 2.5ml of FerAppease to the poll area and a second 2.5ml application to the skin above the muzzle.

