

Keeping your cows cool

- Tips for managing heat stress risk

What is the risk?

- Cows are at risk when temperatures exceed 21-24°C depending on humidity levels.
- In the Waikato, there are typically around 18-19 days where risk of heat stress is very high.
- Heat stress affects not only cows' comfort and wellbeing but can also reduce feed intake, body condition score, milk production and conception rates.

Signs of heat stress

On hot days:

- Look out for crowding around the drinking trough or shaded areas, not lying down as much as normal, reduced feed intakes, slowed rumination and increased breathing rates (greater than 60 breaths per minute).
- Watch your highest producers for indications of heat stress because they tend to be more affected by heat, due to greater metabolic heat production.
- Check on your young stock as well. They can be at risk especially if there is no shade available. Check their drinking water frequently (see below).

Water

- Access to sufficient drinking water is vital for all stock at all times. On hot days, cows will drink water to help them cool down. Check your water supply – is it enough to meet peak demand in summer? Do you have a back-up plan if your water reticulation fails (e.g. power outage, contamination)?
- Bury reticulation pipes (water can get as hot as 50°C in a black pipe in direct sunlight). Keeping water temperature down will help improve the cooling effects of drinking water for cows on hot days.
- Cows have a good sense of taste. If using zinc in the drinking water, add a flavour to reduce bitterness and encourage water intake. Keep troughs clean.
- Check all cows can readily access water. Keep in mind that two half troughs do not provide the same space as one full trough (due to electric fences etc).
- If using tanks to store or transport water, be careful about contamination risk from prior use of tanks.

Prevention tips – reduce your cows' heat stress risk

1. Farm infrastructure

- Install a system to wet cows in the yard. Either use a mister with a fan to reduce humidity or use sprinklers that deliver a medium to large droplet size to minimise humidity. Put sprinklers on a 15 minute on/off cycle to maximise wetting, while minimising water wastage. Beware of potential increased mastitis risk – check with your vet.
- Wetting down the yard's concrete for 30-60 minutes before bringing cows in will also cool down the dairy and yard area for milking
- Consider planting trees if your farm has little shade. Plant away from water troughs to reduce competition for water and plant away from environmental hotspots to reduce effluent loading in these areas.

2. Planning and management

- Delay afternoon milking until evening on high risk days.
- Plan grazing rotations so that you have a 'cool option' available for hot days – either a paddock close to the dairy or a paddock with shade.
- If you have a roofed area that provides enough shade for your herd, it can be useful to leave the paddock gate open in the afternoon and allowing cows to walk to the shaded area and make use of it as they need it.
- If feeding out, do it following the afternoon milking or early in the morning, when temperatures are cooler and cows' appetites are not suppressed. Offer highest quality pasture breaks at night for the same reason.

*****Look after yourself and your staff*****

On hot days keep hydrated and minimise workload – leave non-vital tasks for another day