

June 2026 Newsletter

Heat Stress

Summer is well and truly with us, with the hot weather taking its toll on humans and cattle alike! Heat stress can be a huge problem for cows even on days which don't seem excessively hot to us, with both milk production and fertility being affected. Yield may fall by as much as 20%, and dramatic dips in fertility are commonly seen. The effects of heat stress are long-lasting and the economic consequences can be disastrous if not carefully managed.

Historically high summer temperatures have not been a problem that many in the UK have had to worry about, but evidence is increasing to suggest that even the relatively low temperatures of British Summertime can lead to depressed dry matter intakes, lower milk yields, and reduced fertility through reduced estrous behaviour and poorer conception rates. There is also evidence to suggest that immune system function is depressed, leading to higher rates of mastitis and other infections. Lameness is increased as cows stand for longer to lose heat more effectively, leading to more sole bruising and sole ulcers for over two months after the heat stress incident.

Cows can seemingly shrug off minor causes of stress and continue their productive lives, but multiple small stresses can amount to big problems. The cow which happily goes about her business getting in calf and producing milk regardless of the inconvenient 'stressors' may be the one who is pushed beyond the tipping point into illness by hot weather.

		Relative Humidity (%)									
		20	30	40	50	60	70	80	90	100	
Temperature (°C)	22	66	66	67	68	69	69	70	71	72	
	24	68	69	70	70	71	72	73	74	75	
	26	70	71	72	73	74	75	77	78	79	
	28	72	73	74	76	77	78	80	81	82	
	30	74	75	77	78	80	81	83	84	86	
	32	76	77	79	81	83	84	86	88	90	
	34	78	80	82	84	85	87	89	91	93	
	36	80	82	84	86	88	90	93	95	97	
	38	82	84	86	89	91	93	96	98	100	
	40	85	86	89	91	94	96	99	101	104	

As with all stresses, the weather only becomes a problem when a cow can no longer adapt to deal with the issue. In the case of heat stress temperature isn't the only factor – high humidity dramatically reduces the ability of cows to lose heat. Similarly, poor air flow increases the humidity of the air around the cow. The most accurate climatic parameter is the temperature humidity index (THI); a value which combines cow-side temperature and humidity. A THI value between 72 and 79 indicates mild stress, 80 to 89 indicates moderate stress, and THI higher than 89 indicate severe stress. New evidence from the University of Arizona suggests mild heat stress can occur as low as THI 68 (22°C and 45% humidity), with milk yield losses from this point upwards. Even 'mild stress' can cause major problems and occurs at temperatures humans find comfortable. Waiting until we feel the heat is too late!

No heat stress
Moderate heat stress
Severe heat stress
Dead cows

The key to tackling heat stress is identifying it before production losses and sick cows are seen on farm. To do this the most important indicators are respiratory rates above 60 breaths per minute and rectal temperatures above 39.2 °C. These will often be seen alongside changes in behaviour such as cows bunching toward the centre of buildings and increased standing

Focus on fresh cows

During the summer months, fresh cows are more susceptible to metritis, mastitis, ketosis, and other diseases as the heat reduces feed intake and decreased immune function during the critical transition period. Fresh cows are the group least able to cope with heat stress and act as an early warning sign for heat stress in the herd. Any decline in transition health should be investigated and aggressive interventions made to reduce the impact of the climate. Higher yielding cows are at greater risk of heat stress, as are larger and older animals. This is due to higher dry matter intake causing more heat to be generated by fermentation in the rumen, with additional heat generated by milk production.

Water access

Water intakes are variable and typically average 75 to 115 liters/cow/day. However, in hot weather the same cow may require 190 to 230 liters per day – over twice as much! THI scales show heat stress can be present at temperatures as low as 22°C if humidity inside buildings is high. Cows will often pant in an attempt to lose more heat in hot weather cow per day. Cows that are producing more milk will need even more water. To ensure good intakes there must be at least 10cm water space for each cow, and at least two troughs for each group larger than 10 cows. As social creatures, cows like to drink in groups and will drink around 60% of their daily requirement straight after milking. It is recommended to use large volume troughs supplied with a minimum flow rate of 20 liters/ min to ensure troughs aren't empty at peak times.

P.T.O

Small Flock Club Meeting

'Acute toxicity in Sheep & Goats'

Discussing toxic agents (such as plants), how to recognise and manage them.

This event is FREE to 'Sheep and Goat Club Members' and £20 to non-members.

The meeting will take place on **Wednesday 17th June 2026, 2pm.**

At: Underhill Farm, TA19 9JN

Commercial Flock Club Meeting

'Worms: Long term flock protection'

Practical guide to management strategies, worming products, grazing plans and Worm Egg Counts

Farm walks and refreshments included

This event is FREE

Friday 12th June, 2026, 2pm.

At: Lane Farm, TA20 3JN

Heat Stress continued

Shade

Studies have shown a 10% to 20% increase in milk production for cows offered shade in pasture compared to those without shade. For lactating cows this is essential, but this is equally important for dry cows and young stock. For fields without trees temporary shades can be moved around to avoid poaching areas of the field. Portable sun shades for cows at pasture can reduce poaching of shaded areas, and therefore reduce mastitis.

Focus on the collecting yard

One of the hottest places on the dairy farm is the collecting yard where the high density of cows prevents heat from escaping. Cows need a minimum of 3.5 to 4.5 m² to allow adequate heat loss. This can be achieved by moving smaller groups of cows into the yard to reduce stocking density and promote heat loss. A large diameter fan above the cows can also help with cooling in this high-risk location. A similar problem exists in many parlours, where fans can help reduce the heat burden.

Building modifications

Simple building modifications can be made to improve airflow: removing alternate boards from walls, opening roof ridges and changing doors for gates without metal panelling. New skylights allow huge amounts of sunlight to heat the inside of the building – these can be painted to reduce the amount of light getting in, especially on south facing roofs.

Fans

While not the cheapest option, fans are fantastic at cooling cows by moving hot humid air away from them. Choose fans that are 36" to 48" wide and place them 8' off the ground, 20' apart. They should be angled downward at 15° to 25° to create continuous air flow through the entire length of a building. Aside from fans in the collecting yard and parlour, fans should only be considered after cheaper building modifications have been considered and implemented. However, costs can be reduced by using tubing to deliver streams of air further away from the fan. This reduces the number of fans required and can often be more effective at maintaining high enough air speeds to provide a cooling effect at cow level.

Sprinklers & Soakers

Those of you who have spent time in the USA will be familiar with sprinkler systems to either 'mist' or 'soak' the cows in the collecting yard or at the feed face. This helps cool cows by drawing heat from the cow as the water is evaporated. However, this evaporation is much less effective at higher humidity levels. It is not unusual for our UK weather to lead to relative humidity in excess of 80% for weeks on end. Obviously, spraying water around in a confined space rapidly increases this humidity further! For this reason sprinkler systems may be less effective in the UK than the USA and may even be counter-productive.

Dietary changes

Decreasing concentrates and supplementing fats can increase the energy density of the diet while decreasing the heat produced by rumen fermentation. However, it is wise to discuss this with your nutritionist to avoid creating new problems in trying to solve the original problem! As a general rule, do not increase the fats above 6.5% of dry matter. Decreasing the forage content or feeding higher quality forages will also reduce the heat from fermentation.

Don't add to the stress!

Avoid working cattle (moving, sorting, or transporting) or giving vaccinations on very hot days. Anything that adds to the stress of the cattle can make the difference between a cow that can cope with her heat stress and a cow that is pushed over the edge into illness.

The Hidden Burden of Mastitis: Protecting Your Herd and Your Bottom Line

Mastitis remains the most significant health-related cost for UK dairy farmers, impacting both animal welfare and business profitability. While the visible signs of a clinical case—such as swollen quarters and clots in the milk—are obvious, they represent only the tip of a very expensive iceberg.

The Real Cost of a Single Case Recent industry data, such as the 2024 Kingshay Dairy Costings Report, estimates the average cost of a single clinical mastitis case at approximately £314. For a typical 150-cow herd with an average incidence rate, this can result in annual losses exceeding £16,000.

These costs are driven by several factors beyond just antibiotic tubes:

- **Milk Loss:** Discarded milk and reduced yields often account for over 30% of the total cost.
- **Long-term Yield Reductions:** Damage to udder tissue can lead to a loss of over 500 litres of milk across the remainder of the lactation.
- **Premature Culling:** Mastitis is a leading reason for cows exiting the herd early, adding to replacement costs.
- **Subclinical Impacts:** High Somatic Cell Counts (SCC) can trigger milk price penalties, further eroding margins.

Partnering with Your Vet for Prevention

Rather than simply treating cases as they appear, a proactive approach with your vet can identify whether infections are originating from the environment or the milking routine and make a plan to reduce risk factors on your farm.

Funding Your Progress

The financial barrier to expert advice is now lower thanks to government support. **Under the Animal Health and Welfare Pathway**, dairy farmers with 11 or more cattle can claim funding for an Annual Health and Welfare Review. This grant covers a visit from a vet of your choice to carry out diagnostic testing and provide bespoke advice on reducing endemic diseases like mastitis.

Investing in prevention today not only improves cow comfort but ensures a more resilient and profitable future for your farm.

- **Sign In:** Use your Customer Reference Number (CRN) and password to log into the Rural Payments service.
- **Apply:** Select the "Get funding to improve animal health and welfare" option. The application typically takes about 5 minutes.
- **Or use the link below:** <https://www.gov.uk/guidance/farmers-how-to-apply-for-funding-to-improve-animal-health-and-welfare>

As ever, give the office a call to find out more or arrange a visit.