

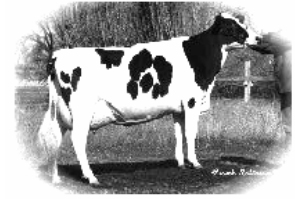
# THREE RIVERS VETERINARY GROUP

## FARM ANIMAL PRACTICE

THE VETERINARY CLINIC,  
LONDON ROAD, BECCLES,  
SUFFOLK. NR34 9YU.  
TEL: 01502 712169 FAX: 01502 712694

## CATTLE PRACTICE

### JULY 2009 NEWSLETTER.



**If the Meteorological Office forecast is correct for high temperatures and low rainfall then there will be some serious effects on cattle health and productivity.**

### Heat Stress in cattle.

Even during normal conditions heat stress has become a year round problem for high yielding dairy cows housed full-time. Stocking density, poor ventilation and new buildings with many roof lights have combined to create warm, humid housing – even in winter.

If the predicted high temperatures occur this year **all types of cattle** both indoors and outside will be severely affected.

Heat stress is a factor of temperature and relative humidity. This is known as the Temperature Humidity Index (THI). A cow can go into heat stress when it is just 24°C at 100% humidity and while this sounds rare, even at outdoor temperatures of just 14°C, housing with poor airflow can soon add 10°C. Whatever the direct cause, heat stressed cows can no longer regulate their body temperature. Obvious signs include panting, splashing tongues in water troughs to cool down and wet, sweaty coats.

Unfortunately, it's the subtle signs which have the drastic consequences. Dry matter intakes drop and cows spend more time standing. This can lead to acidosis and lameness. And fertility also takes a hit, particularly as the animals most affected will be fresh calvers whose immune system is already suppressed.

Increasing the diet's energy density can help, as can moist feeds and the installation of cooling fans. Cattle are unable to dissipate body heat as we do. They can perspire at only 10 per cent of the human rate.

Heavily pregnant cattle are high risk animals with regard to heat stress which may lead to premature calvings and metabolic disease.

So if they are indoors provide a comfort zone in the coolest best ventilated area with high quality food and plenty of access to water.

Outdoors, maximising the shaded areas is important; make sure feed and water is provided there. Cows will not walk far to water in hot weather and run the risk of dehydration, so provide extra water sources.

When installed over a clean surface impervious to water, such as concrete, misters in the collecting yard can also help to reduce heat stress in dairy cows. Set misters to deliver no more than a fog. If you see water dripping from your cows' udders there is a mastitis risk, adjust them to deliver less moisture.

Altering feeding patterns can also help, during extremely hot weather; cattle prefer to eat at night and after milking. Feeding 60 to 70 per cent of the ration between 6 p.m. and 8 a.m. increases milk production successfully during hot weather.

Hot Weather Checklist:

- Modify the environment to maximize ventilation for indoor cattle (open up sheds and consider proving fans).
- Provide shade (? misters to cool the cattle).
- Increase the energy density of the ration as a supportive measure and an enhancement to environmental cooling.
- Provide high quality forage.
- Increase the amount of water available to the herd and the number of access points.
- Alter feeding patterns to increase feed intake.
- Clean feed troughs more often to avoid food spoilage.
- Good fly control further reduces stress.

M. E. BARDSLEY B. Vet Med. Cert CHP\*. MRCVS.

\* ROYAL COLLEGE OF VETERINARY SURGEONS CERTIFICATE HOLDER IN CATTLE HEALTH AND PRODUCTION

Humidity is a key factor in heat stress (THI) as the table below shows:

Temp (F)	-- -Relative Humidity, % - -																								
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100					
-----THI-----																									
70 (21°C)	64	64	64	65	65	65	66	66	66	67	67	67	68	68	68	68	69	69	70	70	Heat Stress Begins				
71	64	65	65	65	66	66	66	67	67	67	68	68	68	69	69	70	70	70	71	71					
72	65	65	65	66	66	67	67	67	68	68	69	69	69	70	70	71	71	71	72	72					
73 (23°C)	65	66	66	66	67	67	68	68	68	69	69	70	70	71	71	71	72	72	73	73	Sharp drops in production occur				
74	66	66	67	67	67	68	68	69	69	70	70	70	71	71	72	72	73	73	74	74					
75	67	67	67	68	68	68	69	69	70	70	71	71	72	72	73	73	74	74	75	75					
76 (25°C)	67	67	68	68	69	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	Danger Zone				
77	67	68	68	69	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	77					
78	68	68	69	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77					
79	68	69	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78				
80	69	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79			
81	69	70	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	80	80			
82 (28°C)	69	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	81		
83	70	71	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	82	82		
84	70	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	82	83	83		
85	71	72	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	81	82	83	84	84	
86 (30°C)	71	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	81	82	83	84	84	85	85
87	72	73	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	81	82	83	84	85	85	86	86
88	72	73	74	74	75	75	76	76	77	77	78	78	79	79	80	81	81	82	83	84	85	86	86	87	87
89	73	74	75	75	76	76	77	77	78	78	79	79	80	80	81	81	82	83	84	85	86	86	87	88	88
90 (32°C)	73	74	75	76	76	77	77	78	78	79	79	80	81	81	82	83	84	85	86	86	87	88	89	89	90
91	74	75	76	76	77	77	78	78	79	79	80	81	82	83	84	85	86	86	87	88	89	90	91	91	92
92	74	75	76	77	77	78	78	79	79	80	81	82	83	84	85	85	86	87	88	89	90	91	92	92	93
93 (34°C)	75	76	77	77	78	78	79	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	93	94	94
94	75	76	77	78	78	79	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	94	95	95
95	76	77	78	78	79	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	95	96	96
96	76	77	78	79	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	96	97	97
97	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	97	98	98	99
98	77	78	79	80	82	83	84	85	86	87	88	89	90	91	93	94	95	96	97	98	98	99	99	100	100

### Water requirements in hot weather.

Good-quality water can have a major impact on your cattle's intake and hence milk production or weight gain.

A dairy cow producing 27 Kg of milk at 68°F (20°C) requires 90 litres of water per day. At 86°F (30°C) she needs 105 litres per day and her yield will have fallen to 23 Kg.

The general estimates of daily water intake for beef cattle at 86°F (30°C) are:

Beef Cows: 83 litres for cows suckling calves; 70 litres for pregnant dry cows and heifers.

Bulls: 90 litres.

Growing cattle: 45 litres for a 200Kg animal; 60 litres for a 300Kg animal.

Finishing cattle: 70 litres for a 300Kg animal; 85 litres for a 400Kg animal.

Can your cows get enough water out of the troughs? You can do some calculations and measure the flow rates into your troughs. A flow of 2.5 litres per minute adds up to 3600 litres per day. Check there is enough trough space (allow 10cm per animal).

### Heifer Rearing Cost Calculator.

DairyCo have produced a Heifer Rearing Calculator which allows dairy farmers to compare six different rearing methods and their costs.

The programme is available as a compact disc which after loading onto a computer allows farmers to put in their own figures.

The six methods range from extensive rearing with heifers calving at 33 months of age to an intensive system and a calving age of 22 months.

There are many other factors besides cost which determine the heifer rearing policy for a particular farm; however the calculator provides an opportunity to compare other systems. The period which has the most effect is birth to weaning where good husbandry, good housing and feeding quality hay and coarse calf rations have major effect. The average cost of rearing a dairy heifer replacement in the UK is currently £950.

### Butox Swish – Special Prices.

Fly control for 8 weeks – midges for 4 weeks.

**250ml** - £14.13 (8 cows).

**1 Litre** – £46.73 (33 cows).

**2.5 Litre** - £103.89 (83 cows).

**12.0 Litre plus applicator** - £415.54 (400 dose pack).

*All prices excluding Vat.*

### CHEAP Ivermectin Pour-On!

**For lungworm and gut worms.**

**Enovex** 2.5 litres is now £44.74 + vat – a saving of £10.26 +vat over previous price!