THREE RIVERS VETERINARY GROUP

FARM ANIMAL PRACTICE

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CATTLE PRACTICE

JULY 2010 NEWSLETTER.

Congratulations to all those of you who entered cattle into the Norfolk show this year; we were glad to be in the shade watching on Wednesday! The standard was high and we saw some excellent results for both our beef and dairy farm stock.

Heat Stress in cattle.

I thought it might be a good idea to run through the important facts of heat stress and the best means of trying to reduce its severity.

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. However heat stress is a problem in all types of cattle production, both indoors and outside.

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^{o}C at 100% humidity and while this sounds rare, even at outdoor temperatures of just 14^{o}C, housing with poor airflow can soon add 10^{o}C and humidity is a key factor.

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.

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

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).

The benefits of additional calcium and energy at calving for dairy cows.

Supplying both additional calcium and energy to combat the metabolic and feed intake challenges imposed at calving has been shown to be of benefit to the dairy cow.

Even if clinical milk fever or ketosis is not prevalent in the older cows, the cost of the preventative oral treatment with calcium and extra energy may be justified by potentially higher milk yields and reduced health complications.

Lower blood calcium levels occur at calving in all cows. Milk fever only occurs when these levels become very low. The result of this lower level of calcium at calving is a loss of muscle tone in the gut, uterus, and teat sphincter.

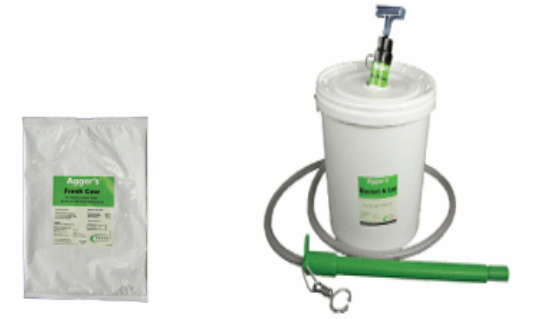
This loss of muscle tone, combined with the immunosuppression of excess cortisol at calving, predisposes these animals to displaced abomasum, retained placenta, uterine prolapse, and mastitis. Additionally, the reduced feed intake often noted with hypocalcemic conditions further aggravates the negative energy balance commonly observed in early lactation, which has an effect on fertility.

What is the best way to administer extra calcium and energy at calving?

1. The new formulation Botonic® Calcium paste:

An Easy way to supply both calcium and energy for cows and sheep. The new Botonic® Calcium is a dietetic feeding stuff in the form of a paste for oral provision of 44 g of calcium in fast and slow release forms and 5.7 MJ of energy!

2. Agger's® Fresh Cow drench to be used in conjunction with the Aggers Stomach pump. This provides similar levels of calcium and energy.



Both of these innovative products are available at the surgery and many of you are already using them and seeing the benefits.

Butox Swish – controls flies (8weeks) and midges (4 weeks).

Now proven rainfast!

250ml - £14.63 (8 cows).
1 Litre – £48.37 (33 cows).
2.5 Litre - £107.53 (83 cows).
12.0 Litre plus applicator (400 cow pack) £430.08. ***All prices excluding Vat.***

Closamectin Pour-On.

For treatment of - lungworm; gastro-intestinal worms; Liver Fluke & Mites/Lice.
Dose rate - 1ml per 10 Kg body weight.

1 litre: £119.84 + Vat.
2.5 Litre: £210.94 + Vat.
5 Litre: £418.95 + Vat.
Gun: £16.05 +Vat.

Ivermectin Pour-On Wormer .

For lungworm and gut worms:
2.5 litres Enovex at £46.09 + VAT!!!

Trodax Injection.

Treats liver fluke only – can be used with pour- on wormer.

The pack contains 2x500ml which contains enough for 66 x 500kg cattle (or 111 x 300 kg) - **£142.28+vat.**

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