

## WORKING AS A TEAM TO CURE RETAINED CLEANSINGS AND METRITIS - THE RESULTS

### A brief summary of the article to jog your memory.

Herdsmen Anthony Sluman works for JA & EJ Yewdall & Son at West Webbery, Bideford in Devon, milking 300 spring calving Guernsey cows. He was faced with an annually recurring problem of 35% metritis cases and 15% retained placentas. Having confirmed that metabolic diseases, calving area and magnesium and calcium deficiency were not the reason, we explored nutrition in the 3 weeks prior to calving. This, in my opinion, has a far greater chance of causing problems as weight loss at this time causes higher levels of uterine disease and poor immune function.

I also quoted that selenium and vitamin E deficiencies were rare and unlikely to be the culprit. I asked the mineral companies not to react too violently to this view, but have nevertheless been taken to task. An invitation has been extended to educate me and I have readily accepted.

We changed the pre calving feeding by using good quality forage and 2.5kgs concentrates, aiming for true ad lib availability to maximise intakes. No straw was fed.

Using the Dairy Herd Health and Productivity Service (DHHPS) at Edinburgh University, far off dries were blood profiled in December 2006. Results showed low blood protein so we altered the blend to increase effective rumen degradable protein (ERDP). At this point the article went to press.

So what happened afterwards?

The next blood test was in February including far off dries and for the first time some pre calvers. Results were excellent, showing good energy and protein. Mineral status was adequate.

The March test included fresh calved cows and pre calvers. When the cows started calving there were some cases of milk fever. Low ERDP was again flagged up in the pre calvers, which inhibits rumen function and can cause mobilisation of body fat. This needed swift action as my diagnosis of the cause for the retained placenta/metritis problem was weight loss in this period.

So grass silage was increased and maize silage decreased to increase the intakes of ERDP. Because there were cases of milk fever and we were now going to increase the grass silage, we were in danger of accentuating the milk fevers. The mineral balance of grass silage can be a trigger of milk fevers, so magnesium chloride flakes were placed in the drinking water, which solved the milk fever problem.

Fresh calved cows had lower than expected intakes of forage. After discussion with John Burnside of Torbridge Veterinary Centre, we thought the clinical and subclinical milk fevers were having a negative effect on intakes. We also decided to reduce the parlour fed concentrates for the first 4-5 days to smooth the transition and boost forage intakes.

About two weeks before the next blood test, Anthony rang me as he was concerned the bulk tank milk urea reading was as low as 12 - when the optimum is stated as being between 21 and 36 (depending on how your milk urea levels are reported). This can happen at grazing - not because of a dietary shortage of ERDP but because of a good balance between ERDP and fermentable metabolizable energy (FME) in the rumen. Then there is little extra ammonia formed and so milk urea levels are low. As the cows were performing superbly, we decided to ignore this and wait for the blood results. And guess what? At the blood test 2 weeks later, blood urea levels were fine. Feeding extra protein would have been incorrect both nutritionally and economically.

The blood test on April 18 included fresh calved cows (average 12 days in milk), longer calved cows (average 63 days in milk) and pre calvers (average 9 days to calve).

Results show no problems with energy, protein and mineral status in the pre calvers. Just a point to raise here that I think is valid. There is no straw being fed to this group and the blood test results show they are energy stable.

We have 30 litre cows in the longer calved group and they are happy with their diet of grazed grass and 6kgs/concentrates/day.

About half of the early lactation cows tested have some marginal issues with their energy balance as witnessed by them having one or more energy results off the optimum value. As some other early lactation cows can have good energy results (and all the longer calved group on the same ration) suggests the problem is an intake and/or utilisation issue here. The problem is also not linked to yield, as one cow is happy giving 46 litres at three weeks calved but another is in energy trouble giving only 20 litres. This suggests that the transition from pre calver to milking cow is not going as smooth as one would like.

The advice from the blood testing team at Edinburgh was to allow the pre calvers to graze limited grass alongside the buffer of maize silage, grass silage and concentrates so as to acclimatise the rumen bugs. Interestingly, Anthony and myself had already agreed this course of action before the results came through!

As you can see, when there are proven energy deficiencies - and these here are quite slight - the answer is not always to feed more concentrates.



John Burnside



The DHHS blood report also works out what milk yield the cows are achieving from forage. They take the cow weight and milk yield to calculate energy requirements, then deduct any concentrates values fed to leave a figure for how much energy is needed from forages - maintenance plus however many litres from forage. Table 1 shows these latest figures from West Webbery.

Table 1. Blood test report figures

Average days calved	12	63
Average milk yield (litres)	24.0	26.8
Maintenance plus litres from forage	11.5	15
Average weight (kgs)	576	579
Body condition score (1-5)	2.8	2.8

**A short summary of performance so far:**

Of the 60 heifers that have calved, 28 had difficult calvings and associated problems. From discussion, possible causes are small heifers, sire choice and feeding maize silage plus protein to the herd when 8-3 weeks from calving. Next year we will monitor heifer growth, review sire choice and ensure there is sufficient quantity of grass silage to feed to the 8-3 week dry cows and heifers.

Of the 140 cows that have calved, we have had 8 retained placentas and/or metritis. This is a massive improvement on the last 3 years where a normal number would be 50 cases. Compared to last year, milk yield is up 2.5 litres/day for cows & heifers, and 3 litres for cows only. Concentrate feeding is the same as last year at 6kgs/day.

The high rate of retained placentas and metritis were diagnosed as a result of poor immune function in the pre calving period. This was caused by low energy status and rectified by improved nutrition - namely feeding higher quality forages and balancing the diet correctly. Mineral and vitamin levels were the same as in previous years.

**Financially..**

Various sources state the total costs, including related culling are £265 per case. Using these figures we are making savings of over £11,000.

**In conclusion.**

I believe we have proven the point that pre calving nutrition has a massive effect on the immune system. The teamwork of herdsman, Vet and nutritionist supported by scientific monitoring are financially rewarding. The extra milk is a welcome bonus.

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