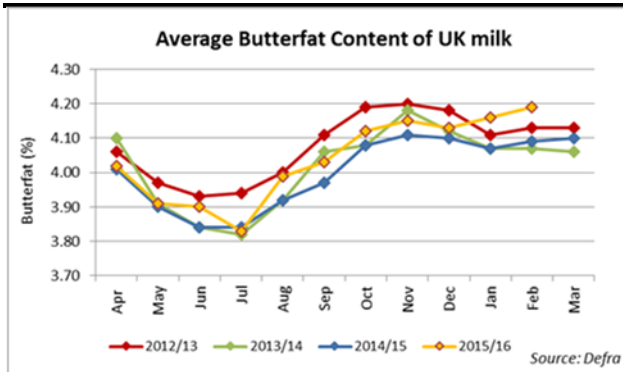




Newsletter 2016, Q2

May 2016



Depressed butterfat levels in cows at grass

It is a well-known phenomenon to most dairy producers that butterfat levels drop when the cows get out to grass. Indeed the AHDB Dairy graph above clearly shows a 0.4% difference in butterfat concentration in milk between the winter and summer months. For most farmers, this is a minor issue. However for some producers, this can substantially affect their milk price if they are on a constituent-based milk contract. Given current conditions, it is critical to all dairy producers to maximise their price on their current milk contract.

Conventional thinking was that this milk fat depression in cows at grass was related to **rumen acidosis (or SARA)**, as a result of high intakes of low fibre, high carbohydrate lush spring grass.

However it is now thought that there are other mechanisms at work, as such depressed butterfat levels in cows at grass often occur without other supporting clinical signs of acidosis. The **"biohydrogenation theory"** is that intakes of high levels of polyunsaturated fatty acids (PUFAs) in spring grass are eaten by the cows, and their metabolism in the rumen produces intermediates (isomers of CLA such as trans-10, cis-12 CLA). These are absorbed into

the bloodstream of the cow, and then act to **reduce the production of butterfat in the udder**. How much of these PUFAs are present in grazed grass will vary according to pasture species, stage of maturity and environmental conditions. However in certain circumstances they can **exceed 5% DM**, and this could have significant harmful effects on butterfat production.

So what does this theory mean for the dairy farmer?

If depression in milk butterfat levels was solely caused by acidosis problems, then conventional use of rumen buffers and parlour cake high in digestible fibre would be the solution, and improve butterfat levels.

However experience is that this does not always help, in which case other causes of butterfat depression need to be considered. Other measures need to be put in place to reduce intakes of PUFAs and/or modify the rumen environment to prevent the microbes producing intermediates that reduce butterfat production:

- **Reducing reliance on grazed grass**, by buffer feeding with maize silage, wholecrop or even grass silage. A small amount of chopped straw will help with intakes of effective long fibre.
- **Ensure good intakes of the buffer feed forage**, which usually means restricting the cows with access to buffer feed only to ensure that they eat it.

Butterfat levels tend to respond relatively quickly to nutritional changes, and so close monitoring can help check if any changes have worked as planned.

Livestock Event 2016

As usual, the DHHPS will have a stand in the Animal Health section at Livestock 2016 at the NEC Birmingham on the 6th and 7th July 2016. If you are coming along, please call into the stand.

Dairy Herd Health and Productivity Service, Division of Veterinary Clinical Sciences, Royal (Dick) School of Veterinary Studies, University of Edinburgh, EBVC, Easter Bush, Roslin, Midlothian EH25 9RG

The University of Edinburgh is a charitable body, registered in Scotland, with registration number SC005336

Tel: 0131 651 7474

Fax: 0131 651 7473

DHHPS@ed.ac.uk

www.ed.ac.uk/vet/dhhps



DAIRY HERD HEALTH & PRODUCTIVITY SERVICE



Managing parasites on dairy farms during the grazing season

With a long list of things to worry about, parasite control is often the easy thing to drop to the bottom of the list. However there is now evidence that **worm burdens** can reduce milk yields, signs that **liver fluke** is becoming more widespread with changing climate, and **lungworm** has been receiving more attention again as farms continue to report outbreaks. The introduction of the clear drenches (such as ivermectin and eprinomectin) in the 1980s, with their prolonged period of activity, provided a panacea for parasite management in cattle. However such drugs have been a victim of their own success.

Resistance to this group of drugs is now widespread in sheep, and although the worm species in cattle and sheep are different, there is no reason to think that cattle will be immune to this phenomenon. With this in mind, the Control of Worms Sustainably (COWS) website is worth a look at www.cattleparasites.org.uk

The long duration of action of some wormers is thought to contribute to the development of resistance, and can also change the way that animals develop immunity to infestation. For example, it is common practice to dose calves prior to turnout to protect their entire grazing season. Although this may protect growth rates,

it may also delay the **build-up of immunity**. Some 1st and 2nd lactation animals are then turned out to pasture with little or no naturally developed resistance to gut and lungworms. This situation can lead to the reduced yields and outbreaks of lungworm in older animals.

The epidemiology of lungworm is not completely understood, and **outbreaks can be unpredictable**. It can definitely be brought onto farms via replacement animals, and so lungworm control should be considered as part of the farm quarantine policy. Lungworm is the only parasitic worm for which there is an **effective vaccine available** on the market. However to maximise its efficacy, animals need to be allowed to become exposed to small doses of lungworm via grazing to boost immunity.

Ensuring that animals are allowed to develop immunity is also important for gutworms, and youngstock worming strategies should take this into account. Adult animals have traditionally been ignored as part of worm management, although it is prudent to ensure that the parasite status of the adult herd is understood and managed as necessary.

Your vet is the best source for advice on parasite management. Every farm's risk factors will be different, depending on grazing patterns and youngstock management. Your vet will help you develop an integrated solution to manage gutworms, lungworms (and liver fluke) to maximise health and productivity in your herd.

DHHPS prices

Unfortunately we have had to increase our prices from the 1st April 2016. A "one off" blood test now costs £290, and a prelambling sheep test will cost £120. A full price list is available on the DHHPS website.

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