

Teagasc Notes for week ending Friday 23rd April 2021

Grassland

Most dairy farmers are into the second round of grazing. Grass looks cold and stunted due to east wind and we're still getting a bit of frost at night. To manage grass from now on, walk your farm weekly, record your covers and put them on PastureBase. Set yourself a challenge to complete 3 grazing rotations in the next 60 days. Target a pre-grazing cover of 1400 Kg DM/Ha every day.

Low milk fat at grass

A number of dairy farmers have contacted us about low milk fats in the last week. This is a frequent question arising for spring calving herds that are fed high quality grass during April and May. The common assumption is that low milk fat is caused by 'very lush grass' and not having enough fibre in the diet.

Low milk fat can be a sign of rumen acidosis driven by high starch content and insufficient fibre intake. This can cause significant health issues due to production of excess lactic acid by the rumen bacteria. Low milk fat in this context would be less than 3.25%. To try to rectify the issue, many farmers feed silage/straw at milking or feed a rumen buffer, even where grass supply is adequate. However, responses to these measures are often poor in practice. Cows in most cases are often milking very well, have good appetites and look otherwise healthy. Low milk fat % as an indicator of rumen health problems does not directly translate for a grazing context. Why? Because the cause of reduced milk fat in grazing cows is somewhat different than that associated with classical acidosis on grain diets. The mechanism involves specific fatty acids (CLA) derived from digestion quality grass in the rumen. These CLA change milk fat by reducing the activity of a key enzymes controlling fat synthesis in the udder. Fibre digestion and rumen health are generally not affected. Therefore, the temporary change to milk fat production on high quality grass diets occurs within the udder, not in the rumen. High quality 2nd rotation grass increases the effect, as some of this grass can contain quite high levels of lipid (fats). Cows also at peak yield the drop in milk fat can be quite noticeable. For this reason, it is not the case that rumen health and therefore cow health must be poor, if milk fat is low. Research studies have shown rumen pH to be similar for herds at 3.90% fat and <3.45% milk fat grazing high quality pasture. Differences were due to lipid content (added to the diet) not fibre in the diet. Indeed, fibre digestion (measured by disappearance rate of NDF in the rumen) was not different in these studies. This is not to say that good management of rumen pH and adequate fibre at grass is not important however. Some key guidelines are:

Genetics: There is a strong association between cow/herd genetics for milk fat % and milk fat % in May. A herd with zero to negative PD for fat % on their EBI report could expect milk fat to be around 3.6% in May. **Stage of lactation:** Milk fat % at peak yield is generally expected to be 0.4 to 0.5% lower than the lactation average. So a herd delivering 4.3% fat for the year will usually be expected to be 3.8% to 3.9% in May. **High Intakes:** (17+kg DM) of quality grass on 24 hour allocations in good grazing conditions. Maintain pre-grazing covers >1300kg DM and post grazing residuals of 4.0 to 4.5cm. **Ensure minimum fibre content** (NDF) requirement (33-35% of DM) is met where grass is in deficit. High quality grass is typically 37-42% NDF providing adequate fibre). Around 75% of total diet NDF should come from forage. **Feeding slower degradability concentrate** ingredients when feed deficits arise. Maize is preferable to barley or wheat as the starch in it is degraded more slowly. Soya hulls/beet pulp are good sources of NDF. Citrus pulp has low fibre content and increases acidosis risk at high inclusion rates.

Experience has shown that such cases resolve themselves in 2-3 weeks when rumen conditions adapt and/or grass composition changes but cows remain healthy throughout.