

Teagasc Notes for the week ending Friday December 8th 2017

Dairying

Messages from the Teagasc National Dairy Conference

There was an excellent Teagasc dairy conference in Kilkenny last week with much new information from recent research projects.

Breeding

Results from research on the Next Generation (Elite) Herd in Moorepark show that EBI works and that “it does what it says on the tin” in terms of higher profit. The Elite Herd has an average EBI of 154 and is being compared with a National Average herd with an EBI of 51. The Elite herd has higher solids, better fertility, shorter calving interval and lower replacement rate than the National Average herd. This translates into the Elite herd generating €222 more profit per cow and €613 more profit per hectare than the National Average herd.

Young Genomic bulls (GS) have 55-60% EBI reliability and can change by as much as +/- €120. This is of concern to many dairy farmers who manage this risk by using Daughter Proven (DP) bulls. ICBF analysis of 2016 data shows that herds using mainly GS bulls outperformed those using mainly DP bulls for all of the major traits. The most reliable way to manage genetic risk is to use a team of bulls (a team of 8 bulls for 100 – 150 cow herds is now recommended) and most importantly to use an equal number of straws from each bull.

Iodine residues in milk

Iodine toxicity is especially important for new-born infants, who are more sensitive to iodine toxicity because of an immature thyroid gland. Infant milk formula (IMF) is a key market for the growing Irish dairy industry, but milk produced when cows are fed surplus iodine in supplemental concentrate is generally unsuitable for inclusion in IMF. Iodine concentrations in raw milk (bulk tank) should be maintained between 20 and 150 µg/kg. This ensures that cows are maintained in adequate iodine status, and that the milk produced is safe for a diverse product portfolio. Iodine levels in milk are high during the spring and autumn when concentrates are being fed because iodine is being supplemented at 60mg per day in rations rather than at 12 mg which is all that is required. Compounders have been advised to reduce iodine levels to 12 mg per head per day to avoid problems of excessive iodine in the milk..

Selective dry cow therapy (SDCT)

Unlike blanket dry cow therapy where all cows receive antibiotics, selective dry cow therapy (SDCT) involves targeted use of antibiotic treatment only in those cows shown to have an intra-mammary infection at drying off. In quarters shown to be uninfected at drying off, teat seal only is administered. The addition of teat seal to a SDCT protocol ensures that all quarters have some protection against new infections during the dry period. Strict hygiene is essential in the administration of teat seal since failing to thoroughly disinfect the teats could allow the accidental introduction of bacteria and have disastrous consequences for mastitis control. Herds with bulk tank SCC consistently below 200,000, with <2% clinical case rate in the 3 months prior to dry-off and with routine individual cow milk recording data available may consider SDCT. A research trial to investigate the potential of SDCT is currently on-going at Teagasc Moorepark.

Initial results indicate that the SCC of teat seal only cows was greater than those cows that received both antibiotic and teat seal. However, the majority of cows (>80%) in both treatments maintained SCC <200,000. The difference between the two groups across lactation was in the order of 26,000 somatic cells. All herds have maintained a bulk tank SCC <200,000 throughout the study to-date indicating that using teat seal only did not impact at the herd level.

Management tips when applying lime to grassland

- The target soil pH for grassland on mineral soils is 6.3 and on organic (peat) soils is 5.5.
- On grassland soils with high molybdenum (Mo) levels, increasing soil pH above 6.2 can lead to increased Mo levels in the herbage. High intakes of Mo in ruminant animals can lead to an increased risk of copper deficiency. It is therefore recommended to maintain soil pH at 6.2 on these soils or consider supplementing animals with copper.

- Apply lime based on the soil test report. Where lime recommendations exceed 7.5 t/ha it is best to split the application rate and apply up to 7.5 t/ha initially and the remainder in year 3.
- Lime can be applied at any time of the year, however, mid-summer and autumn are ideal as soils are still firm and there are increased spreading opportunities following silage harvesting and grazing.
- Ground limestone is the most cost effective source of lime. It will start to work once it is applied and washed into the soil.
- Use magnesium (Mg) limestone where soil Mg levels are low to replenish it in the soil.
- Granulated limes are a finely ground limestone (<0.1mm) hastening the reaction with soil acidity to increase soil pH in the shorter term. Recent research shows that these products are more suitable for maintaining soil pH (i.e. where the initial soil pH is close to the target i.e. ≥ 6.0).
- Maintaining soil pH will result in increased release of soil N from organic matter up to a value of €80/ha/year
- On some heavier and organic soils, it is best to apply a reduced rate of lime on a more regular basis to control soil acidity rather than as one large application as this avoids “softening the soil”.
- It is recommended to leave at least 3 months between liming and the application of urea or slurry to reduce the risk of N loss through volatilization. To overcome this, apply urea / slurry first and apply lime 10 days later.

Training course

Supervising People on Your Dairy Farm - Staff Management

This Teagasc 4 day + 2 half-days course is designed to increase the skills of the farm owner or manager when managing and supervising people on a dairy farm whether they are full time, part time or contractors. The course looks at the role and responsibilities of a farmer as an employer, and how to achieve the best results for your farm, yourself, your employees and contractors.

The course will take place in Teagasc Mullinavat on December 19th, 20th, January 8th and 9th 2018, 9.30am - 4.30pm and a half day on January 16th and in April 2018. The cost is €300, which is subsidised by Macra Skillnet and includes course materials, a copy of the Teagasc Farm Labour Manual, tea/coffee and lunch on the first 4 training days. This Course is certified at QQI (FETAC) LEVEL 6. Register to attend at <http://www.macra.ie/dairystaffmanagement>, by December 12th 2017. Places are limited to 15 people.

Tillage

New Ploughing Rules

New ploughing rules under the Nitrates Directive state that the application of non-selective herbicides (e.g. glyphosate) and ploughing can commence from 1st December for spring crops.

