



Lyons Systems Research Herd Notes

Background: It is widely recognised that grass-based systems offer a competitive advantage and will predominate in Ireland. However, grazing systems that have been developed to utilise large quantities of grazed grass have in the main been based on low-output per cow. In this scenario, high levels of profitability are possible through avid cost control and comparatively high stocking rates for grazing systems. There are now reasons to consider the development of grazing systems that are based on high-output per cow. These reasons include (i) concerns about increasing dairy cow numbers and environmental emissions, (ii) facilitating farm expansion post EU-milk quota removal for land limited and fragmented farms, (iii) lack of available skilled labour on farms to deal with expanding animal numbers. The rationale for this research is that a high output grass-based spring milk production system can be profitable when built on a foundation of good grassland management and meeting both milk and fertility targets and has a place in a sustainable Irish dairy industry.

For more details on the High Output Systems Research Herd visit <http://www.ucd.ie/agfood/welcomemessage/systemsresearchherd/>.

Lyons Systems Research Herd Notes Week 13-04-2020

Farm Details:

Area available: 17.52 ha
Current Stocking Rate (MP): 3.5
Farm Cover: 820 kg DM/ha
Growth Rate: 64 kg DM/ha/day
Demand: 60 kg DM/ha/day
Average Concentrate Supplement: 7.8 kg/head/day
Average DIM: 56 days
Cows Calved: 60 (out of 60)



Current Daily Feed Budget: From 6th April until the start of the final grazing rotation in early September, the herd will be divided into three equally sized groups where each group will be offered a 14% protein concentrate, a 12% protein native formulation concentrate or 12% protein non-native concentrate in the parlour. These diets will be offered as part of our 2020 nutrition trial which aims to evaluate if a lower crude protein concentrate can improve nitrogen efficiency and if native ingredients can be used for most of the nut. On pasture, cows were allocated 18kg DM of grass. Grass DM was 19.2%. Estimated grass intake was 16 kg DM/cow.

Spring Grazing Plan: The AFC on 13th April was 820 kg DM/ha (range: 106-1540 kg DM/ha). The average daily growth for the previous week was 64 kg DM/ha. The second grazing rotation began on 5th April. Pre-grazing covers on the 2nd rotation paddocks are 1300-1550 kg DM/ha. Average soil temperature (at 100 mm) this week was 10.5°C. One paddock, which has a cover of 3500 kg DM/ha (1.03 ha), was not grazed in the 1st rotation so it will be mowed for surplus bales on Wednesday the 15th April. The mowed grass was wilted for 48 hrs and baled on Friday 17th April. We are now giving the cows 36 hours grass allocations.

Calving: On Saturday 11th April, the final pregnant cow calved. In total, the calving season lasted 11 weeks and 2 days from when the first cow calved (24th January). Our average calving interval was 368 days and average gestation length was 276 days. We had 50% of the herd calved by the 11th of February and the 6-week calving rate was 92% (55/60 cows).

Milk Production: Average production from 6th-12th April was 35.8 kg/cow at 4.26% fat and 3.51% protein, 2.78 kg MS and SCC was 73,000. These figures are based on milk recording results from 8th April. Milk production from this time last year was 33.4 kg/cow, 3.75% fat, 3.42% protein, 2.39 kg MS and SCC was at 151,000.