



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) 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 and sustainable when built on a foundation of good grassland management and meeting both milk and fertility targets and has a place in the 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 30-08-2021

Farm Details:

Area available: 17.43ha
Current Stocking Rate (MP): 3.27 LU/ha
Cover/LU: 264kg DM/LU
Farm Cover: 862kg DM/ha
Growth Rate: 53kg DM/ha/day
Demand: 59kg DM/ha/day
Average Concentrate Supplement: 3kg/head/day
Average DIM: 188 days



Current Daily Feed Budget: Cows are being 3kg/head/day of concentrate offered one of four experimental concentrates; a 14% protein concentrate with non-native ingredients, a 12% protein concentrate with non-native ingredients, a 12% protein concentrate with native ingredients or a 12% protein concentrate with native ingredients supplemented with methionine. These diets are being offered as part of our 2021 nutrition trial until the start of the final grazing rotation in October. Cows are allocated 18kg DM of grass and grass DM is currently 17.9%.

Grazing Plan: The current AFC is 862kg DM/ha (range 140 – 1733kg DM/ha), cover/LU is 264kg DM and growth is 53kg DM/ha/day. Growth rates and residuals have been excellent in the last few weeks due to the good growing conditions. The Teagasc autumn grazing target AFC for 1st September is 980kg so we are below target at 862kg. Rotation length is set at 30 days in line with the Teagasc autumn grazing targets. We will seek to build up the AFC to 1200kg for mid-September with the final round of fertiliser to be applied within the next week. To date, paddocks have grown on average 10.6 tonnes DM/ha. The re-seeded paddocks (2.06ha) were sprayed with clover-safe herbicide on 26th August.

Milk Production: Average production from 23rd-29th August was 23.6kg/cow at 4.21% milk fat, 3.62% protein, 1.85kg MS and SCC was 63,000. Milk production from this time last year was 22.5 kg/cow at 4.78% milk fat, 3.66% protein, 1.90kg MS and SCC was 76,000.

BCS: The BCS of the herd was recorded on 26th August. The average BCS was 3.00 with no cows ≤2.5 or was ≥3.5.