

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 02-11-2020

Farm Details:

Area available: 17.43 ha

Current Stocking Rate (MP): 3.27 Farm Cover: 525kg DM/ha Growth Rate: 16kg DM/ha/day Demand: 26kg DM/ha/day

Average Concentrate Supplement: 3kg/head/day

Average DIM: 260 days



Current Daily Feed Budget: Cows are being offered 3kg/day of concentrates as all cows are >180 DIM. As the final grazing rotation has begun, cows will now be offered an 18% protein concentrate until dry-off. The herd is also being allocated 8kg DM of grass and 8kg DM of silage per day.

Grazing Plan: The AFC on 2nd November was 525kg DM/ha (range: 50-1200kg DM/ha) with a cover/LU of 161kg DM/cow. As of 2nd November, 13ha (75%) of the MP was closed from grazing. The average cover of the closed paddocks is 375kg DM/ha. Cows are being housed indoors by night and allowed to graze by day since Thursday 29th October due to lower growth rates and worsening weather. Between 26th October - 1st November, the average soil temperature at 100mm was 9.3°C which was similar to last week. However, 26.7mm of rain fell which is much higher than last week's rainfall (data from the nearby Met Eireann station, Casement Aerodrome).

Milk Production: The average milk production from 26th October - 1st November was 15.9 kg/cow at 4.66% milk fat, 4.23% protein, 1.41 kg MS and 85,000 SCC based on milk recording on 29th October. Average milk production this time last year was 15.6kg/cow at 4.50% fat, 3.87% protein (1.31 kg MS) and SCC at 104,000.

BCS: On 30^{th} October, the BCS of all 57 cows in the herd was assessed. The average BCS was 3.04 with no cows being ≤ 2.5 and 4 cows being ≥ 3.5 (7%).