



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 30-11-2020

Farm Details: Area available: 17.43 ha
Current Stocking Rate (MP): 3.27
Farm Cover: 711kg DM/ha
Growth Rate: 9kg DM/ha/day
Demand: 0kg DM/ha/day
Average Concentrate Supplement: 3kg/head/day
Average DIM: 288 days
Milking cows: 50/57 cows



Current Daily Feed Budget: Cows are being offered 3kg/day of concentrates. All cows are now being offered an 18% protein concentrate until dry-off. The herd is also being allocated 15kg DM of silage per day.

Grazing Plan: The AFC on 1st December was 711kg DM/ha (range: 284 - 1181kg DM/ha). Cows have been housed full time since 11th November. Between 23rd – 29th November, the average soil temperature at 100mm was 6.4°C (range: 2.5°C – 10.4°C) and a total of 5.8mm of rain fell (data from the nearby Met Eireann station, Casement Aerodrome). These factors have led to a reduced average daily grass growth rate of 9kg DM/ha/day. Despite this, our target closing AFC of ≥ 700 kg DM/ha on 1st December was achieved. This week's grass measurement is the closing cover of this year.

Milk Production: The average milk production from 23rd – 29th November was 15.5 kg/cow at 5.58% milk fat, 3.89% protein, 1.47 kg MS and 80,000 SCC based on milk recording on 26th November. Average milk production this time last year was 14.9 kg/cow at 5.02% fat, 3.79% protein (1.31 kg MS) and SCC at 110,000.

Dry-off: Cows that yield ≤ 9 kg milk for four consecutive days or that are within 60 days of their expected 2021 calving date will be dried off. Cows with consistently high SCC ($> 150,000$) throughout the year will be assessed by the Veterinary Herd Health team to determine if antibiotic dry cow therapy is necessary. As of 30th November, seven cows have been dried off. Two more cows are scheduled to be dried off this week due to their 2021 calving date.