



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 19-04-2021

Farm Details:

Area available: 17.43 ha
Current Stocking Rate (MP): 3.27
Farm Cover: 630kg DM/ha
Growth Rate: 53kg DM/ha/day
Demand: 57kg DM/ha/day
Average Concentrate Supplement: 8 kg/head/day
Average DIM: 54 days



Current Daily Feed Budget: Cows are being fed 8 kg of an 18% crude protein concentrate in the parlour (this is built up gradually over two weeks post-calving). Cows at 60 - 89 DIM are on 7.5 kg (25/57 cows) and cows <60 DIM on 8 kg (32/57 cows). This year's nutritional treatments include a 14% protein nut with non-native ingredients, a 12% protein nut with non-native ingredients, a 12% protein nut with native ingredients and a 12% protein nut with native ingredients supplemented with methionine. This feed has been ordered and will be provided from this week onwards. Cows are being offered 16kg of grass. Grass DM is 23%.

Spring Grazing Plan: The current AFC is 630kg DM/ha (range 60 – 1300kg DM/ha). Average daily growth rate is 53kg DM/ha this week. The growth rate is 21kg DM/ha/day higher than last week due improved weather conditions. Between 12th – 18th April, the average soil temperature at 100mm was 7.9°C and 2.3mm of rain fell (6.5°C and 8.8mm last week respectively). Rain data is from the nearby Met Eireann station, Casement Aerodrome. The target pre-grazing yield is 1280kg DM/ha and residual covers are set at 50kg DM/ha. Rotation length is set at 21 days.



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Milk Production: Average production from 12th – 18th April was 37.6 kg/cow at 4.15% fat, 3.45% protein (2.86kg MS) and SCC is 45,000, based on milk recording results from 15th April. Milk production from this time last year was 34.7 kg/cow, 4.13% fat, 3.40% protein, 2.61kg MS and SCC was 71,000.

BCS: The average BCS of 56 cows that were assessed for BCS on Friday 16th April was 3.05. Of these cows, 5.4% (3/56) had a BCS of ≤ 2.5 and 5.4% (3/56) had a BCS of ≥ 3.5 .

Herd replacement: One cow was lost from the herd due to a catastrophic bulling injury. She has been replaced in the herd by cow of similar parity to allow research to continue.