



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 <https://www.ucd.ie/agfood/about/lyonsresearchfarm/lyonsdairyherd/>

Lyons Systems Research Herd Notes Week 19/09/2022

Farm Details:

Area available: 17.43 ha
Current Stocking Rate (MP): 3.27
Farm Cover: 756 kg DM/ha
Cover LU/ha: 231
Growth Rate: 55kg DM/ha/day
Demand: 20kg DM/ha/day
Average Concentrate Supplement: 4 kg/day
Average DIM: 228 days



Current Daily Feed Budget: This week growth was up to 55kg DM/ha/day. Growth is expected to be steady with dry weather forecasted in the coming week. Feed budget remained the same at 4kg of a 14% crude protein concentrate in the parlour, which is formulated with native ingredients. Cows are now allocated 6 kg of grass DM (up from 3 kg) and 9 kg silage (down from 12kg). Grass DM has dropped from 19% to 16 % int the last week. Cows are currently grazing covers of 1100-1200 kg DM/ha. This level of concentrates and the provision of silage will continue as we monitor AFC over the coming weeks.

Grazing Plan: The current AFC is 756 kg DM/ha (range 100 to 1200 kg DM/ha) the cover LU/ha is 231 which is still considerably low for this time of the year but is climbing slowly. The average soil temperature at 100mm was 14°C and 0.2mm of rain fell (rain data from the nearby Met Eireann station, Casement Aerodrome). Average daily growth rate is 55 kg DM/ha this week, from the 12th to 18th September, predicted growth is to remain above 50kg DM/ha this will allow us to continue to build covers gradually. Fourth cut pit silage was taken from the out block and this week at a pre-harvest cover of 2700kg DM/ha.

Milk Production: Average production from 12th September to 18th September was 18.29 kg/cow at 4.81% fat, 3.51 % protein (1.46 kg MS) and SCC was 58,000. Milk production from the same period in 2021 was 20.7kg/cow at 4.76% fat, 3.64 % Protein ,1.69kg MS and SCC was 75,000