



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 10-08-2020

Farm Details:

Area available: 17.43 ha
Current Stocking Rate (MP): 3.27
Farm Cover: 756kg DM/ha
Growth Rate: 86kg DM/ha/day
Demand: 63kg DM/ha/day
Average Concentrate Supplement: 3.23kg/head/day
Average DIM: 176 days



Current Daily Feed Budget: The herd are being allocated 18kg DM of grass per day with an average of 3.23kg DM of concentrate based on their DIM. In advance of taking intake measurements from cows as part of our 2020 nutrition trial, Cows that are 120-179 DIM will be offered 3.5kg/day and cows that are on ≥180 DIM will be offered 3kg/day. The herd have been split into three groups and are being offered a 14% protein concentrate, 12% protein native formulation concentrate or a 12% protein non-native concentrate in the parlour. These diets will be offered as part of our 2020 nutrition trial until the start of the final grazing rotation in October.

Grazing Plan: The AFC on 10th August was 883kg DM/ha (range: 70-1544kg DM/ha) with cover/LU of 270kg DM/cow. This week we will be focusing on building up farm covers on the milking platform. Our target cover/LU for the 15th of August is 220kgDM/cow. Currently we are ahead of this target. However, from 10th-21st of August we are performing an experimental trial with the herd and therefore will not be taking out surplus grass for the next 2 weeks.

Milk Production: The average milk production from 2nd-9th August was 26.4 kg/cow at 4.29% milk fat, 3.69% protein, 2.11 kg MS and 89,000 SCC based on milk recording on 6th August. Average milk production this time last year was 21.9 kg/cow at 4.29% fat, 3.39% protein (1.68 kg MS) and SCC at 62,000.

Breeding Season 2020: The breeding season started on Saturday 2nd May and it lasted for 10 weeks, finishing on Friday 10th July. Pregnancy scans were done fortnightly at approximately 30 and 60-days post A.I. Current scanning data indicates that conception rate to first service is 76% (41/54). Based on the 30-day scan, the 6-week in calf rate was 85% (46/54 cows). Two cows suffered embryo loss between the 30 and 60-day scan. At the 60-



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day scan, 42 cows (78%) have been confirmed pregnant so far. Another 10 cows are due a 60-day scan. A final confirmation scan will be done at a later date to confirm the pregnancy of all cows.

EBI: The most recent (August 2020) genetic evaluation of the herd is as follows:

EBI €	Milk S.I.	Fert S.I.	Calv €	Beef €	Maint €	Mgmt €	Hlth €
201	69	83	42	-9	8	3	5
Milk kg	Fat kg	Prot kg	F%	P%	Calv Int	Surv%	
148	13.6	9.3	0.13	0.07	-3.9	2.7	