



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 21-05-2018

Farm Details:

Area available: 17.65
Current Stocking Rate (MP): 3.4
Farm Cover/LU: 202 kg DM/LU
Growth Rate: 67 kg DM/ha/day
Demand: 61 kg DM/ha/day
Average Concentrate Supplement: 6.1 kg/head/day
Average DIM: 94.5
Cows Calved: 60



Image © Faisal Zahoor

Daily Feed Budget: Cows are being allocated 18 kg DM of grass and an average of 6.1 kg of a high energy concentrate (cows > 60 DIM on 6 kg, cows < 60 DIM on 8 kg).

Grazing Plan: Last week, average soil temperature was 11.7°C (100 mm below ground). AFC on the 21th of May was 688 kg DM/ha (range 202 to 1546 kg DM/ha). Three paddocks (3.12 ha with an average cover of 2264 kg DM/ha) have been taken out for silage to be cut tomorrow (23rd of May). Average grass growth was 61 kg DM/ha/day. Cover/LU is 202 kg DM with the paddocks removed which is higher than the target of 150-180 kg DM/LU for this time of year. Average DM of the grass this week was 19.9%. Average leaf:stem:dead ratio on a DM basis was 83:12:1 and clover accounted for the remaining 4% of the sward DM. The low dead proportion of the herbage can be attributed to the fact that the majority of the swards grazed last week were regrowth from paddocks that were cut for silage in the previous rotation.

Milk Production: Average weekly production is currently 30.4 kg/cow as of the end of the 20th of May at 4.0% fat and 3.5% protein (2.3 kg MS). Average weekly production for this time last year was 34.6 kg/cow at 3.97% fat, 3.4% protein (2.6 kg MS). SCC is currently 245,000. As this has increased, milk samples were taken for culture and sensitivity testing and results will be back this week. Fat, protein and SCC figures are based on milk recording results from the 9th of May.

Breeding Season 2018: The breeding season started on Monday 30th of April and will continue for 12 weeks. Breeding is all by A.I. and is being done twice daily. Bulls being used across the herd are as follows: HZB, LWR, FR2031, FR2236, FR2297, FR2298, FR2314, FR2371, FR2460, FR4020, FR4244. Heat detection is being done using Moo Monitors with a scratch card and crayon system used to replace visual heat detection. To date, after 21 days



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of breeding, 96 % (54/56 of cows to be bred) of the cows have been bred. The two cows which have not been bred were scanned today (21st of May). One cow presented with an ovarian cyst and received “Receptal” and had a CIPR put in this morning. The other cow had a good C.L. and therefore was given “Estrumate”.

BCS: The BCS of the herd was assessed last Friday (18th of May). Average BCS of the herd was 2.93. There was 6.6% (4/60) of the herd with a BCS of ≤ 2.5 and 1.6% (1/60) have a BCS ≥ 3.5 .

Locomotion score: Locomotion score assessment was carried out last week. Currently, 11.6% (7/60) of the cows are lame which is slightly above the target of 10%. Lame cows will be treated by the hoof-trimmer later this week.

Herd EBI May 2018: Average EBI reduced slightly by €2 from €161 to €159. Milk kg also reduced 78 to 72 kg. Currently, the herd is in the top 1% for overall EBI, in the top 5% for milk sub-index and the top 10% for fertility sub-index.

EBI	Milk	Fertility	Calving	Beef	Maint.	Health	Mgt
159	54	61	42	-9	4	4	3
Milk kg	Fat kg	Pro. Kg	Fat %	Pro. %	Calving int.	Surv %	
72	10.1	6.7	0.12	0.07	-2.9	2	