



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 15/10/2018

Farm Details:

Area available: 17.65 ha
Current Stocking Rate (MP): 3.34 cows/ha
Farm Cover: 907 kg DM
Growth Rate: 40 (38) kg DM/ha/day
Demand: 47 kg DM/ha/day
Average Concentrate Supplement: 4 kg/head/day
Average DIM: 241.5
Cows Milking: 59



Daily Feed Budget: Cows are being allocated 14 kg DM of grass and 4 kg of an 18% in-parlour concentrate.

Grazing Plan: AFC on the 15th of October was 907 kg DM/ha (range 102 to 1829 kg DM/ha) with a cover/LU of 272 kg DM. Average grass growth was 40 kg DM/ha/day this week. Average grass DM last week was 15.8%. The final rotation started on Sunday (the 7th of October) and paddocks have started to be closed off for the winter period. A target of 0.51 ha must be grazed per day, with an aim to have 70% of the farm grazed by the 1st of November and the farm being closed, with 100% grazed, by the 17th of November. As of Monday the 15th of October, we have 15% (2.77 ha) grazed. The target was 20% (3.6 ha). However due to the pre-grazing cover last week average 2165 kg DM/ha. Allocating 0.51ha/day will result in 18.7 kg DM/cow of grass allocated, when are target is 14 kg DM/cow/day for this time of year. In order to make up the difference between area grazed and target area closed we will be grazing light grass cover towards the end of the week in order to keep on track of are Autumn budget plan. These paddocks currently have a cover of 1300 -1255 kg DM/ha.

Milk Production: Average production is 17.2 kg/cow/day, as of the week ending 14th of October, at 4.84% fat and 4.07% protein (1.52 kg MS). Average production this time last year as 17 kg/cow/day, at 4.6% fat and 4.00% protein (1.46 kg MS). SCC is currently 149,000. Fat, protein and SCC figures are based on milk recording results from the 10th of October.



Breeding Season 2018: The breeding season started on Monday 30th of April and ended on the 22nd of July. Pregnancy scans were carried out on a weekly basis at approximately 30 and 60-days post A.I. Cows were also scanned pre-breeding to check for urinary infection (endometritis), Anoestrus (non- cycling estrous), ovarian cyst (follicular cyst or luteal cyst) and the final scan took place two weeks ago. Breeding results for this year are shown in the table below:

Eligible cows for breeding (of 60)	55
21 day submission %	96
1st serve conception rate %	69
2nd serve C.R %	59
3rd serve C.R %	67
6 week incalf %	84
Total empty rate % (including cows not bred)	13