

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 <a href="http://www.ucd.ie/agfood/welcomemessage/systemsresearchherd/">http://www.ucd.ie/agfood/welcomemessage/systemsresearchherd/</a>.

## Lyons Systems Research Herd Notes Week 23-04-2018

Farm Details:

Area available: 17.65

Current Stocking Rate (MP): 3.4 Farm Cover: 709 kg DM/ha Growth Rate: 73 kg DM/ha/day Demand: 53 kg DM/ha/day

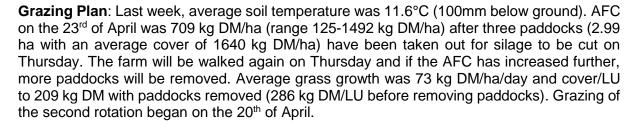
Average Concentrate Supplement: 7 kg/head/day

Average DIM: 68

Cows Calved: 60 (all calved)

Current Daily Feed Budget: Cows are being allocated 16 kg DM of grass and an average of 7 kg of a high

energy concentrate (cows > 60 DIM on 6 kg, cows < 60 DIM on 8 kg). This week, the aim is to increase the grass intake to 18 kg DM/head/day, provided the cows are achieving the target residuals.



**Fertiliser Application:** Last Thursday, 18:6:12 was spread on 7 paddocks (8.28 ha) at a rate of 121 kg/ha and CAN was spread on 10 paddocks (9.37 ha) at a rate of 106 kg/ha. To date, on average the farm has received 95.78 kg N/ha, 5.97 kg K/ha and 2.98 kg P/ha.

**Milk Production:** Average weekly production is currently 31.4 kg/cow as of the end of the 22<sup>nd</sup> of April at 4.55% fat and 3.38% protein (2.49 kg MS). SCC is 93,000. Fat, protein and SCC figures are based on milk recording results from the 21<sup>st</sup> of March.

**Breeding Season 2018:** The breeding season will start on the 30<sup>th</sup> of April and will continue for 12 weeks. Breeding is all by A.I. and will be done twice daily. Bulls to be used across the herd are as follows: HZB, LWR, FR2031, FR2236, FR2297, FR2298, FR2314, FR2371,



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FR2460, FR4020, FR4244. These bulls were selected based on high milk production and components while maintaining high fertility. Eleven bulls were selected to increase bull team

reliability. Easy calving bulls (<2.4%) will be used for heifers. Pre-breeding scanning will take place on Wednesday next (25<sup>th</sup> of April), checking for cycling, the presence of cysts and dirty cows. Heat detection will be done using moo monitors with a scratch card and crayon system used to replace visual heat detection.

**BCS**: Pre-breeding BCS of the herd was assessed last Thursday (19<sup>th</sup> of April). The average BCS of the herd was 2.96. There was 8.3% (5/60) of the herd with a BCS of  $\leq$  2.5 and 6.6% (4/60) have a BCS  $\geq$  3.5.