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 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)

Image © Zoe McKay

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.

Grazing Plan: Last week, average soil temperature was 11.6°C (100mm below ground). AFC on the 23rd of April was 709 kg DM/ha (range 125-1492 kg DM/ha) after three paddocks (2.99 ha with an average cover of 1640 kg DM/ha) have been taken out for silage to be cut on Thursday. The farm will be walked again on Thursday and if the AFC has increased further, more paddocks will be removed. Average grass growth was 73 kg DM/ha/day and cover/LU to 209 kg DM with paddocks removed (286 kg DM/LU before removing paddocks). Grazing of the second rotation began on the 20th of April.

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 22nd 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 21st of March.

Breeding Season 2018: The breeding season will start on the 30th 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,

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 (25th 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 (19th of April). The average BCS of the herd was 2.96. There was 8.3% (5/60) of the herd with a BCS of ≤ 2.5 and 6.6% (4/60) have a BCS ≥ 3.5.