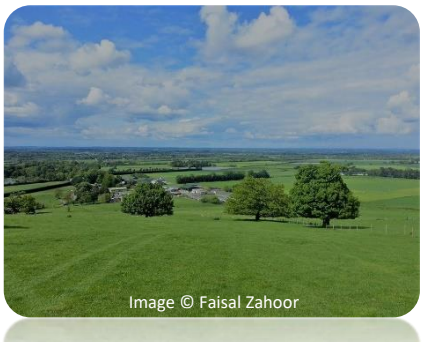
Background: It is widely recognised that grass-based systems offer a competitive advantage and will predominate in Ireland. However, grazing systems that have been developed to utilise large quantities of grazed grass have in the main been based on low-output per cow. In this scenario, high levels of 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 14-05-2018



Farm Details:
Area available: 17.65
Current Stocking Rate (MP): 3.85
Farm Cover/LU: 218 kg DM/LU
Growth Rate: 93 kg DM/ha/day
Demand: 69 kg DM/ha/day
Average Concentrate Supplement: 6.2 kg/head/day
Average DIM: 87.5
Cows Calved: 60 (all calved)

Daily Feed Budget: Cows are being allocated 18 kg DM of grass and an average of 6.2 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 11.3°C (100 mm below ground). AFC on the 14th of May was 841 kg DM/ha (range 103 to 1314 kg DM/ha). After measuring twice last week, two paddocks (2.07 ha with an average cover of 1588 kg DM/ha) have been taken out for silage to be cut next week. Average grass growth was 93 kg DM/ha/day which was similar to the daily growth this time last year. Cover/LU is 218 kg DM with the paddocks removed which is a higher than the target of 150-180 kg DM/LU for this time of year. The farm will be walked again on Thursday to reassess and potentially remove another paddock for silage if required. Average DM of the grass the cows were grazing this week was 17.4%.

Milk Production: Average weekly production is currently 30.5 kg/cow as of the end of the 14th of May at 4.25% fat and 3.5% protein (2.35 kg MS). Average weekly production for this time last year was 34.3 kg/cow at 4.0% fat, 3.3% protein (2.5 kg MS). SCC is currently 242,000. 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 25th of April.

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. 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%) are being used for heifers. Heat detection is being

done using Moo Monitors with a scratch card and crayon system used to replace visual heat detection. To date, after 14 days of breeding, 64 % (36/56 of cows to be bred) of the cows have been bred. 21/56 cows of the cows were bred in the first 7 days.