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 01/10/2018

Farm Details:
Area available: 17.65 ha
Current Stocking Rate (MP): 3.34 cows/ha
Farm Cover: 1023 kg DM
Growth Rate: 56 (51) kg DM/ha/day
Demand: 30 kg DM/ha/day
Average Concentrate Supplement: 4 kg/head/day
Average DIM: 227.5
Cows Milking: 59

Daily Feed Budget: Cows are being allocated 9 kg DM of grass, 4 kg of concentrate of an 18% in-parlour concentrate and 5 kg DM of silage after morning milking.

Grazing Plan: AFC on the 24th of September was 1023 kg DM/ha (range 50 to 1988 kg DM/ha) with a cover/LU of 306 kg DM. Baled silage is being fed to slow down the rotation and build average farm cover. This week, average grass growth was 56 kg DM/ha/day. Average grass DM last week was 16.5%.

Milk Production: Average production is 19.0 kg/cow/day, as of the week ending 1st of September, at 4.39% fat and 3.70% protein (1.52 kg MS). Average production this time last year was 18.6 kg/cow/day, at 4.71% fat and 4.01% protein (1.62 kg MS). SCC is currently 168,000. Fat, protein and SCC figures are based on milk recording results from the 12th of September.

Breeding Season 2018: The breeding season started on Monday 30th of April and ended on the 22nd of July. Pregnancy scans are being done weekly, at approximately 30 and 60 days post A.I. Pre-breeding, the decision was made not to breed 5/60 for various reasons, including lameness, temperament and high SCC, therefore, only 55/60 cows were submitted for breeding. Submission rate in the first 3 weeks was 96% (53/55 cows) with all cows being submitted by week 5. Current scanning data indicates that conception rate to first service is 69% (38/55). Based on a 60-day scan, the 6 week in calf rate is 84% (46/55 cows). To date, 52/55 cows have been confirmed in calf from the first 9 weeks of breeding. The final scan will take place this week.

Silage results:

	First cut	Second cut
DM %	36.2	26.8
DMD %	72.5	72.5
CP %	16.6	14.2
NDF %	44.3	50.7
PDIN (g/kg)	98.2	84.0
PDIE (g/kg)	83.0	79.1
UFL (UFL/kg)	0.82	0.82