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) 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 and sustainable when built on a foundation of good grassland management and meeting both milk and fertility targets and has a place in the 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 26-07-2021

Farm Details:
Area available: 15.34ha (2.09ha out for silage)
Current Stocking Rate (MP): 3.72 LU/ha
Cover/LU: 197kg DM/LU
Farm Cover: 731kg DM/ha
Growth Rate: 45kg DM/ha/day
Demand: 67kg DM/ha/day
Average Concentrate Supplement: 3kg/head/day
Average DIM: 153 days

Current Daily Feed Budget: The amount of concentrates each cow is offered is normally based on DIM. However, all cows will be offered 3kg of concentrate until dry-off. Cows are being offered one of four experimental concentrates; a 14% protein concentrate with non-native ingredients, a 12% protein concentrate with non-native ingredients, a 12% protein concentrate with native ingredients or a 12% protein concentrate with native ingredients supplemented with methionine. These diets are being offered as part of our 2021 nutrition trial until the start of the final grazing rotation in October. Cows are allocated 18kg of grass DM and grass DM is currently 20.7%.

Grazing Plan: The current AFC is 731kg DM/ha (range 60 – 1625kg DM/ha), cover/LU is 197kg DM and growth is at 45kg DM/ha/day. The recent warm weather coupled with a lack of rain fall has increased the soil moisture deficit to 51mm (data from nearby Casement Aerodrome). Intermittent showers are forecasted for this week which may improve conditions. Grass quality has been difficult to maintain with the extreme variability in weather. Two paddocks (2.09ha, average cover: 1956kg DM/ha) have been removed from the rotation and they will be cut for silage next week in an effort to correct grass quality in the next rotation. These can be reintroduced to the rotation if drought continues to slow the round. To minimise heat stress and prolonged exposure to the high temperatures, cows were grazed post morning milking for 4 hours and brought back into the shed for shade from the intense midday sun. Paddocks with trees or hedging were prioritised for daytime grazing to allow cows shade if needed. Residuals are being held at 100 kg DM/ha to retain some moisture in the soil and aid regrowth. The 2021 reseeds (Aberclyde, Abergain, Gracehill and white clover) have had their first grazing. They were sown on the 5th of June and struggled to germinate during the drought conditions.

Milk Production: Average production from 19th – 24th July was 27.1 kg/cow at 4.28% milk fat, 3.54% protein, 2.12kg MS and SCC was 48,000. Milk production from this time last year was 27.4 kg/cow at 3.96% milk fat, 3.55% protein, 2.06kg MS and SCC was 134,000. To date, cows have produced on average 4907kg milk and 382kg MS. Currently, the predicted 305-day milk performance from ICBF is 8051kg milk and 647kg MS.