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 11-10-2021

Farm Details:
Area available: 17.43ha
Current Stocking Rate (MP): 3.27 LU/ha
Cover/LU: 218kg DM/LU
Farm Cover: 713kg DM/ha
Growth Rate: 43kg DM/ha/day
Demand: 29kg DM/ha/day
Average Concentrate Supplement: 3kg/head/day
Average DIM: 230 days

Current Daily Feed Budget: Our 2021 nutrition trial concluded on Friday 8th October so the herd will be offered an 18% protein commercial concentrate from Tuesday 12th October until dry-off. Cows are also allocated 5kg DM of silage, 9kg DM of grass and grass DM is currently 19.8%.

Grazing Plan: The current AFC is 713kg DM/ha (range 80 – 1450kg DM/ha), cover/LU is 218kg DM and growth is 43kg DM/ha/day. Growth levels have improved from last week due to the better weather conditions. Average soil temperature at 100mm has risen slightly to 12.5°C and rainfall has fallen to 2.9mm between 4th-10th October (rain data from the nearby Casement Aerodrome). The final grazing rotation began on Monday 11th October. The herd is grazing out the paddocks well. Silage is being fed to increase covers. Rotation length is set at 40 days in line with Teagasc autumn grazing targets.

Milk Production: Average production from 4th-10th October was 20.2kg/cow at 4.80% milk fat, 3.99% protein, 1.78kg MS and SCC was 67,000 based on milk recording on 7th October. Milk production from this time last year was 20.0kg/cow at 4.54% milk fat, 4.08% protein, 1.72kg MS and SCC was 108,000.

EBI: The most recent (September 2021) genetic evaluation of the herd is as follows:

Lyons Systems Research Herd Notes

EBI €	Milk S.I.	Fert S.I.	Calv €	Beef €	Maint €	Mgmt €	Hlth €
206 (Top 1%)	73 (Top 1%)	79 (Top 10%)	42	-10	12	4	6
Milk kg	**Fat kg**	**Prot kg**	**F%**	**P%**	**Calv Int**	**Surv%**	
167.7	13.3	10.3	0.12	0.08	-3.8	2.5	