



Lyons Systems Research Herd Notes

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 <https://www.ucd.ie/agfood/about/lyonsresearchfarm/lyonsdairyherd/>

Lyons Systems Research Herd Notes Week 25/04/2022

Farm Details:

Area available: 17.43 ha
Current Stocking Rate (MP): 3.27
Farm Cover: 582 kg DM/ha
Growth Rate: 48 kg DM/ha/day
Demand: 56kg DM/ha/day
Average Concentrate Supplement: 7.6 kg/head/day
Average DIM: 68 days



Current Daily Feed Budget: Cows are being fed on average 7.6 kg of a 14% crude protein concentrate in the parlour which is formulated with native ingredients. Cows at 60 - 89 DIM are on 7.5 kg (47/57 cows) and cows <60 DIM on 8 kg (10/57 cows). Cows are being allocated 16 kg DM grass.

Spring Grazing Plan: The current AFC is 582 kg DM/ha (range 60 to 1200kg DM/ha). Average daily growth rate is 48 kg DM/ha this week. Between 18th April and 24th April, the average soil temperature at 100mm was 9.2 °C and 3.2 mm rain fell (rain data from the nearby Met Eireann station, Casement Aerodrome). With the continued good weather, growth has improved over the last week. A post grazing height of 4 to 5 cm is being achieved. The second round of grazing commenced on April 15th. Demand for grass is currently at 56kg DM/ha meaning magic day will most likely be around the start of May this year. Average DM for the week was 18.8 %.

Milk Production:

Average production from April 18th to April 24th was 35.34 kg/cow at 3.72 %fat, 3.49 % protein (2.53kg MS) and SCC was 105,000. Milk production from this time last year was 36.9 kg/cow at 4.64% fat, 3.45% protein (2.79 kg MS) and SCC was 45,000. There are currently four cows with clinical mastitis, and the vets are investigating the cause of the problem.

Breeding season 2022:



Lyons Systems Research Herd Notes

The breeding season will begin on 3rd May, for the duration of 12 weeks; 10 planned weeks with an additional 2 weeks, if necessary, based on scans. Breeding is done by AI and will be done twice a day. Bulls selected are:

FR6217	PINE-TREE LAWSON LARRY-ET
FR5076	PEAK MOTION-ET
FR5857	OLDCASTLETOWNN TIERNAN
FR6139	LISDUFF PERCEPTION
FR5668	PEAK CHILTON-ET
FR6061	MUNTA MYSTIC
FR4573	VH PRASER
FR7533	BOMAZ EPISODE-ET
FR7359	MOORABBY NAVAJO
FR7923	TOBERMARTIN FRANCIS

The weighted EBI averages of the bulls are:

	EBI €	Milk SI	Fert SI	Health €	Milk kg	Fat kg	Prot kg	F+P kg	F%	P%
Bulls	285	123	104	22	392	24	19	43	0.14	0.09
Calves 2023	255	101	98	16	293	19	15	34	0.13	0.09

These bulls were selected for high milk fat and protein milk PTA to ensure the milk fat and protein % stay positive in addition to selecting for a good health and high fertility sub-index values. Ten bulls were selected to increase bull team reliability. Heat detection is being done using automated activity monitoring and scratch cards which will be read in the collecting yard.