



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 <http://www.ucd.ie/agfood/welcomemessage/systemsresearchherd/>.

Lyons Systems Research Herd Notes Week 26-04-2021

Farm Details:

Area available: 15.58ha (1.85ha out for silage)

Current Stocking Rate (MP): 3.66 LU/ha

Farm Cover: 704kg DM/ha

Growth Rate: 69kg DM/ha/day

Demand: 62kg DM/ha/day

Average Concentrate Supplement: 7.7kg/head/day

Average DIM: 62 days



Current Daily Feed Budget: Cows are being fed 8 kg of an 18% crude protein concentrate in the parlour (this is built up gradually over two weeks post-calving). Cows at ≤ 60 DIM are offered 8 kg (21/57 cows) and cows at 61 - 90 DIM are offered 7.5 kg (36/57 cows). This year's nutritional treatments include a 14% protein nut with non-native ingredients, a 12% protein nut with non-native ingredients, a 12% protein nut with native ingredients and a 12% protein nut with native ingredients supplemented with methionine. This feed will be offered from next week onwards. Cows are being offered 17kg of grass DM and grass DM is 22.9%.

Grazing Plan: The current AFC is 704kg DM/ha (range 120 – 1450kg DM/ha). With the recent good weather, average daily growth rate has increased to 69kg DM/ha this week, 16kg DM/ha/day higher than last week. Last week, two paddocks (1.85ha in total) were closed off for silage and their average opening cover is 1350kg DM/ha. Rotation length is set at 21 days.

Milk Production: Average production from 19th – 25th April was 36.9 kg/cow at 4.64% fat, 3.45% protein (2.99kg MS) and SCC is 41,000, based on milk recording results from 22nd April. Four cows are on OAD until their condition improves. Milk production from this time last year was 34.7 kg/cow, 4.57% fat, 3.46% protein, 2.79kg MS and SCC was 40,000.

Breeding season 2021: On May 4th, the breeding season will begin lasting for 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 FR5860 (Saintbrigid Frank Joseph), FR6139 ((lg)Lisduff Perception), FR5857 (Olcasetletown Tiernan), FR6061 (Munta Mystic), FR5668 (Peak Chilton-Et), FR4573 (VH Praser), FR5971 (Viaductview Fiveo), FR2400 (S-S-I Headway Alltime-Et) and FR5239 (Hanrahan Olympus). This year we will be breeding 55/57 cows. Two cows are being omitted from breeding due to persistent udder issues.

The weighted EBI averages of the bulls are:



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EBI €	Milk SI	Fert SI	Calv €	Beef €	Maint €	Manag €	Health €	Milk kg	Fat kg	Prot kg	F+P kg	F%	P%
281	116	108	44	-9	4.1	2	17	360	22	18	40	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. Nine bulls were selected to increase bull team reliability. Heat detection is being done using Moo Monitors and scratch cards which will be read in the collecting yard.