



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) 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 29-11-2021

Farm Details:

Area available: 17.43ha
Farm Cover: 785kg DM/ha
Growth Rate: 8kg DM/ha/day
Average Concentrate Supplement: 2.6kg/head/day
Cows dried off: 4/57 cows (7%)
Average DIM: 279 days



Current Daily Feed Budget: Cows are being offered on average 2.6kg/day of an 18% protein commercial concentrate until dry-off. Four cows with a BCS of 3.5 are not being provided concentrates for the time being. Cows are also allocated 14kg DM of 82% DMD silage.

Grazing Plan: The current AFC is 785kg DM/ha (range 240–1700kg DM/ha) and growth is 8kg DM/ha/day. Cows have been housed for the winter since Thursday 18th November. Our aim was to close with an AFC 650-700kg DM/ha so this was achieved. This week's grass measurement is the closing cover of the year. On average, paddocks grew 13.8tn DM/ha (range: 11.4tn - 17.5tn DM/ha) of grass during the year.

Milk Production: Average production from 22nd-28th November was 13.9kg/cow at 5.65% milk fat, 4.04% protein, 1.35kg MS and SCC was 76,000 based on milk recording on 25th November. Milk production from this time last year was 15.5kg/cow at 5.58% milk fat, 3.89% protein, 1.47 kg MS and 80,000.

Dry-off: Cows that yield ≤ 9 kg milk for four consecutive days or that are within 60 days of their expected 2021 calving date will be dried off. Lyons has practiced selective dry cow therapy for several years. Cows with consistently high SCC ($>150,000$) throughout the year will be assessed by the Veterinary Herd Health team to determine if antibiotic dry cow therapy is necessary. Of the 53 cows that are due to calve next year, 21% (11/53 cows) will receive antibiotic treatment and sealer while 75% (42/53 cows) will just receive a sealer. On 23rd November, three cows were dried off due to diminishing milk yields with two cows to be dried off on 30th November. The herd's milk yield will be monitored closely over the coming weeks in case early dry-off is required.

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



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EBI €	Milk S.I.	Fert S.I.	Calv €	Beef €	Maint €	Mgmt €	Hlth €
207 (Top 1%)	73 (Top 1%)	80 (Top 10%)	42	-10	12	4	6
Milk kg	Fat kg	Prot kg	F%	P%	Calv Int	Surv%	
167.8	13.4	10.3	0.12	0.08	-3.9	2.6	