



## 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 06/05/2019

#### Farm Details:

Area available: 14.05 ha (3.54 ha taken out for baled silage)

Current Stocking Rate (MP): 4.2 LU/ha

Farm Cover: 824 kg DM/ha

Cover/LU: 196 kg/LU

Growth Rate: 82 kg DM/ha/day

Demand: 71 kg DM/ha/day

Average Concentrate Supplement: 7.2 kg/hd/day

Average DIM: 76 days

Cows Calved: 59 (all calved)



**Current Daily Feed Budget:** Cows are being allocated 18 kg DM of grass and an average of 7.2 kg of a high energy concentrate (cows < 60 DIM on 8 kg, > 60 DIM on 7.5 kg, and >90 DIM on 6kg). From now until the start of the last rotation, half of the group will be fed an 18% crude protein concentrate while the other half will be fed a 14% concentrate. Estimated grass intakes last week were 17.8 kg DM/hd/day.

**Grassland:** The current AFC is 824 kg DM/ha (range 285 to 1515 kg DM/ha). Average daily growth rate was 81 kg DM/ha this week and grass DM was 19.8% on average. We have 4 paddocks (3.54 ha) that we will take out as surplus silage bales once weather conditions allow (AFC was 1062 kg DM/ha (317 kg DM/LU) prior to taking these out). We aim to maintain cover/LU at 150-180 kg/LU during the summer months in order to maintain grass quality.

**Milk Production:** Average production is currently 33.2 kg/cow at 4.2% fat and 3.5% protein (2.56 kg MS). SCC is 281,000 (we had 2 cows with high SCC and both cows have since been treated. SCC drops to 76,000 without these two cows). Fat, protein and SCC figures are based on milk recording results from the 24th of April. Milk production from this time last year was 30.9 kg/cow at 4.25% fat and 3.5% protein (2.38 kg MS).

**Locomotion scores:** Last Wednesday (1<sup>st</sup> May) the cows were assessed for locomotion (scale of 1 to 5 with 1= normal, 2= mildly lame, 3= moderately lame, 4= lame, and 5= severely lame). Of the 59 cows scored, 52 cows scored 1 (88%), 5 cows scored 2 (8.5%), 1 cow scored 3 (1.7%) and 1 cow scored 4 (1.7%). The cow that scored 4 was checked the following day and was found to have white line disease. The affected claw was trimmed, and a shoe was put on.



**Breeding Season 2019:** The breeding season started on Monday 29th of April and will continue for 12 weeks. Submission rate for the 1<sup>st</sup> week was 42% (24/57 eligible cows for breeding).

Breeding is all by A.I. and is being done twice daily. Bulls being used across the herd are as follows: FR4513 (Ballygown Albert), FR2460 (Nextgen PHC Eimer 557), FR2298 (Olcastletown Ronaldo), FR4600 (Clorane Dandyman), FR4481 (Monabrogue Ebony), OTS (Ballintosig Ring O), FR4378 (Monamore Riptide), FR5085 (Lars-Acres Super Nerd), FR4379 (Ballydehob Adam), FR2035 (Crefogue Spider), and FR4187 (Westcoast Persus).

The weighted EBI averages of these bulls are as follows:

EBI €	Milk S.I	Fert S.I	Calv €	Beef €	Maint €	Mmgt €	Hlth €	Milk kg	F kg	P kg	F+P kg	F%	P%
282	107	106	55	-7	3	8	10	235	18.2	15.4	33.6	0.15	0.13

These bulls were selected based on high milk production and components, while maintaining high fertility. Eleven bulls were selected to increase bull team reliability. Heat detection is being done using Moo Monitors, scratch cards and crayons.