



## 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 27-04-2020

#### Farm Details:

Area available: 15.61 ha (1.82 ha out for reseeded)  
Current Stocking Rate (MP): 3.51  
Farm Cover: 594 kg DM/ha  
Growth Rate: 75 kg DM/ha/day  
Demand: 60 kg DM/ha/day  
Average Concentrate Supplement: 7.6 kg/head/day  
Average DIM: 71 days



**Current Daily Feed Budget:** Cows are being allocated 18 kg DM of grass and an average of 7.6 kg of a high energy concentrate (cows > 60 DIM on 7.5 kg, cows < 60 DIM on 8 kg). The herd are being offered on average 7.6kg of a 14% protein concentrate, a 12% protein native formulation concentrate or a 12% protein non-native concentrate in the parlour. These diets will be offered as part of our 2020 nutrition trial until the start of the final grazing rotation in October. Grass DM was 21.3%. Estimated grass intake was 15.8 kg DM/cow.

**Spring Grazing Plan:** The AFC on 27<sup>th</sup> April was 636 kg DM/ha (range: 50-1601 kg DM/ha) with cover/LU of 169 kg/cow. Last week, we closed off 2 paddocks (2.16 ha) with a cover of 1550 kg DM /ha for over sowing with white clover afterwards. These paddocks were cut for bales and this provided 14 bales. There was 1.82ha of the milking platform sprayed off for reseeded on Monday the 27<sup>th</sup> of April.

**Breeding season 2020:** On May 5<sup>th</sup>, 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 being used are FR4728 (Kilfeacle Pivotal), FR5593 (Oakglen Cosmic), FR4573 (VH Praser), FR4439 (Killalough Samir), FR5239 (Hanrahan Olympus), FR4785 (Glenaboy Ronald), FR4608 (Fly-Higher Mod Cade-Et), OPH (Olcastletown Phantom), FR2314 (Gortreen Sebastain), FR4686 (Mountdudley Joker) and FR5085 (Lars-Acres Super Nerd). This year we will be breeding 54 cows. Earlier this year we lost a cow to a suspected case of grass tetany. The other 5 cows will not be bred due to general health problems, a milking temperament issue and a progressively impaired fertility rate.

The weighted EBI averages of the bulls are:



EBI €	Milk SI	Fert SI	Calv €	Beef €	Maint €	Manag €	Health €	Milk kg	Fat kg	Prot kg	F+P kg	F%	P%
266	105	108	41	-7.9	3.6	4	12.1	244	20.8	14.2	35	0.19	0.1

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 and scratch cards which will be read in the collecting yard.

**Milk Production:** Average production from 20<sup>th</sup>-27<sup>th</sup> April was 34.7 kg/cow. This milk yield is higher than milk production from this time last year (32.9 kg/cow). Based on milk recording on 23<sup>rd</sup> April, milk fat was 4.57%, protein was 3.46% at 2.79 kg MS and 40,000 SCC.