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 13/05/2019

Farm Details:
Area available: 16.58 ha
Current Stocking Rate (MP): 3.35 LU/ha
Farm Cover: 691 kg DM/ha
Cover/LU: 206 kg/LU
Growth Rate: 83 kg DM/ha/day
Demand: 60 kg DM/ha/day
Average Concentrate Supplement: 6.9 kg/hd/day
Average DIM: 83 days
Cows Calved: 59 (all calved)

Current Daily Feed Budget: Cows are being allocated 18 kg DM of grass and an average of 6.9 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 16.8 kg DM/hd/day.

Grassland: The current AFC is 691 kg DM/ha (range 50 to 1855 kg DM/ha). Average daily growth rate was 83 kg DM/ha this week and grass DM was 19.2% on average. On Tuesday the 14th of May we cut 4 paddocks (3.54 ha) with an average yield of 2877 kg DM/ha. These paddocks were put into the pit along with the 1st cut silage, which was also cut on the 14th of May. Silage yield was 4741 kg DM/ha (12.7 tons/ac fresh weight). The DM at cutting was 15.1%. Once mowed the grass was tedded and left to wilt for 24 hr before harvested.

Milk Production: Average production is currently 33.8 kg/cow at 3.9% fat and 3.54% protein (2.52 kg MS). SCC is 165,000. Fat, protein and SCC figures are based on milk recording results from the 8th of May. Milk production from this time last year was 30.5 kg/cow at 4.25% fat and 3.5% protein (2.35 kg MS).

BCS: Last Friday (10th of May) the herd was assessed for BCS. Average BCS of the milking herd was 2.88 with 13.6% (8/59) with a BCS of ≤ 2.5 and 5.1% (3/59) with a BCS ≥ 3.5.

Breeding Season 2019: The breeding season started on Monday 29th of April and will continue for 12 weeks. Submission rate for the 1st two weeks was 84.2% (48/57 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.