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 21/10/2019

Farm Details:
Area available: 17.53 ha
Current Stocking Rate (MP): 3.31 LU/ha
Farm Cover: 493 kg DM/ha
Cover/LU: 149 kg/LU
Growth Rate: 30 (26) kg DM/ha/day
Demand: 26 kg DM/ha/day
Average Concentrate Supplement: 3 kg/hd/day
Average DIM: 238 days
Milking cows: 58

Current Daily Feed Budget: From Wednesday of this week, cows are being allocated 8 kg DM of grass, 10 kg DM silage and an average of 3 kg of a high energy concentrate. Since the 7th October all cows are being fed an 18% crude protein concentrate. Estimated grass intakes last week were 11 kg DM/hd/day.

Grassland: The current AFC is 493 kg DM/ha (range 50 to 933 kg DM/ha). Average daily growth rate was 30 kg DM/ha this week and grass DM was 13.8 % on average. We began our last rotation on the 7th October. Our target is to graze 65% by the 1st of November, with the remaining 35% grazed by mid-November. As of Friday, 18th October we have grazed 42% of the farm (7.48 ha). From the 23rd of October, cows will be out by day and in by night and offered 10 kg DM of silage to keep on target for our Autumn planner.

Milk Production: Average production is currently 15.9 kg/cow at 5.04% fat and 3.97% protein (1.43 kg MS). SCC is 106,000. Fat, protein and SCC figures are based on milk recording results from the 9th of October. Milk production from this time last year was 15.8 kg/cow at 4.82% fat and 4.07% protein (1.40 kg MS).

Breeding Season 2019: The breeding season started on Monday 29th of April and ended on the 15th of July. A pre-breeding scan was carried out, along with pregnancy scans weekly; at approximately 30 and 60 days post A.I. A final scan was carried out on Friday, 18th October and the results are as follows:

21-day Submission rate: 95% (53/56)

All cows submitted within 26 days.

1st serve C.R: 64% (36/56)

2nd serve C.R: 55% (11/20)

3rd serve C.R: 57% (4/7)

6-week in calf rate: 79% (44/56)

The final pregnancy scan showed that there was one case of embryo mortality, resulting in a 8.9 % empty rate from the cows selected for breeding. The overall empty rate, including cows not selected for breeding, was 12.1% (7/58 cows).