



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 05-06-2018

Farm Details:

Area available: 16.09 (1.56 removed for reseeding)
Current Stocking Rate (MP): 3.73
Farm Cover/LU: 201 kg DM/LU
Growth Rate: 63 kg DM/ha/day
Demand: 67 kg DM/ha/day
Average Concentrate Supplement: 6.1 kg/head/day
Average DIM: 108.5
Cows Calved: 60



Daily Feed Budget: Cows are being allocated 18 kg DM of grass and an average of 6.1 kg of a high energy concentrate (cows > 60 DIM on 6 kg, cows < 60 DIM on 8 kg; only 2 cows <60 DM). Grass DM intakes (through disappearance) for the last 2 weeks have reached on average 18.8 kg DM/cow.

Grazing Plan: Last week, average soil temperature was 15.5°C (100 mm below ground). AFC on the 5th of June was 750 kg DM/ha (range 100 to 1509 kg DM/ha). Average grass growth was 63 kg DM/ha/day. Cover/LU is 201 kg DM which is higher than the target of 150-180 kg DM/LU for this time of year. However, no silage will be taken from the MP this week as the forecast is for dry weather. Further, two paddocks have been removed for reseeding. Average DM of the grass this week was 21.8%.

Reseeding: Two paddocks (1.56 ha) have been removed from the rotation for reseeding. They were sprayed off 10 days ago and grazed tightly at the weekend. They will be reseeded using a minimum cultivation technique today (6th of June) with 39.5 kg/ha of an Abergain and Briant mixture. Both varieties are tetraploid late heading varieties.

Milk Production: Average weekly production is currently 27.4 kg/cow as of the end of the 20th of May at 3.91% fat and 3.44% protein (2.02 kg MS). Average production for this time last year was 31.1 kg/cow at 2.3 kg MS. SCC is currently 146,000 which has reduced from 242,000 since the high SCC cows were identified and treated. Fat, protein and SCC figures are based on milk recording results from the 23rd of May.

Animal Health: Some cows in the herd were noticed coughing over the last few weeks. Faecal and lung samples (using a "lung wash" technique) were taken by the vet. Samples diagnosed



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a lungworm problem in the herd. All cows are being treated with “Epromec” (pour-on) as a result.

Breeding Season 2018: The breeding season started on Monday 30th of April and will continue for 12 weeks. Breeding is all by A.I. and is being done twice daily. Bulls being used are as follows: HZB, LWR, FR2031, FR2236, FR2297, FR2298, FR2314, FR2371, FR2460, FR4020, FR4244. Heat detection is being done using Moo Monitors with a scratch card and crayon system used to replace visual heat detection. To date, after 35 days of breeding, 100% (56/56) of the cows have been served.

Breeding results to date:

	% of cows submitted
Week 1	36% (21/56)
Week 2	66% (37/56)
Week 3	96% (54/56)
Week 4	98.2% (55/56)
Week 5	100% (56/56)