



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 28-05-2018

Farm Details:

Area available: 17.65
Current Stocking Rate (MP): 3.4
Farm Cover/LU: 232 kg DM/LU
Growth Rate: 87 kg DM/ha/day
Demand: 61 kg DM/ha/day
Average Concentrate Supplement: 6.1 kg/head/day
Average DIM: 101.5
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).

Grazing Plan: Last week, average soil temperature was 12.4°C (100 mm below ground). AFC on the 28th of May was 790 kg DM/ha (range 142 to 1954 kg DM/ha). Average grass growth was 87 kg DM/ha/day. Cover/LU is 232 kg DM which is higher than the target of 150-180 kg DM/LU for this time of year but it includes two paddocks that have been sprayed off for reseeding which will be baled. Due to the weather forecast of high temperatures and low rainfall, caution must be taken when removing paddocks for silage this week as there was little rain over the weekend. The farm will be walked again on Wednesday to reassess. Average DM of the grass this week was 21.2%.

Milk Production: Average weekly production is currently 29.0 kg/cow as of the end of the 20th of May at 4.0% fat and 3.5% protein (2.2 kg MS). Average weekly production for this time last year was 31.3 kg/cow at 3.97% fat, 3.42% protein (2.3 kg MS). SCC is currently 245,000. Fat, protein and SCC figures are based on milk recording results from the 9th of May.

SCC: As the average SCC has increased, samples were taken from the four cows with high levels from the most recent milk recording to identify the causative bacteria. These cows will be treated with appropriate antibiotics.

Silage: First cut silage was harvested on Thursday last (24th of May) and was put into the pit on Friday which was approximately 2 weeks later than previous years. 7 ha from a separate block to the MP were cut with a DM% of 20.9 on the morning of cutting. This silage consisted mostly of PRG and red clover.



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Fertiliser: Last week, a bag/acre of 18:6:12 and 26:0:0:5 (Sulfa CAN) was spread on the MP. To date, the MP has received 130.3 kg N/ha, 5.5 kg P/ha and 10.9 kg K/ha.

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 across the herd 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 28 days of breeding, 98.2 % (55/56) of the cows have been bred. The only cow left to bred has a CIDR in place which will be removed Wednesday and she will be AI'd on Thursday.

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) |