



## 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 08/04/2019

#### Farm Details:

Area available: 17.53

Current Stocking Rate (MP): 3.37

Farm Cover: 624 kg DM/ha

Growth Rate: 30 kg DM/ha/day

Demand: 50 kg DM/ha/day

Average Concentrate Supplement: 7.9 kg/head/day

Average DIM: 49 days

Cows Calved: 59 (out of 60)



**Current Daily Feed Budget:** Cows are being allocated 16 kg DM of grass and an average of 7.9 kg of a high energy concentrate (cows > 60 DIM on 7.5 kg, cows < 60 DIM on 8 kg). 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. This research is focussed on improving nitrogen efficiency and along with cow performance data, we will also look at pasture intakes and nitrogen excretion. Estimated grass intakes last week were 16.1 kg DM/ha. This was measured by calculating pre grazing herbage mass minus post grazing herbage mass using a rising plate meter, divided by number of cows grazing.

**Spring Grazing Plan:** The current AFC is 624 kg DM/ha (range 111 to 1332 kg DM/ha). Average daily growth rate was 30 kg DM/ha this week and grass DM was 16.8% on average. We started the 2<sup>nd</sup> rotation last Wednesday (2<sup>nd</sup> of April). The current pre-grazing yield is 1332 kg DM/ha. So far, the milking platform has received on average 80 kg N/ha, 7 kg P/ha and 14.1 kg K/ha. The next round of fertiliser application is due the 3<sup>rd</sup> week in April.

**Milk Production:** Milk Production: Average production is currently 33.4 kg/cow at 3.75% fat and 3.42% protein (2.39 kg MS). SCC is 151,000. Fat, protein and SCC figures are based on milk recording results from the 3<sup>rd</sup> of April.

**Locomotion scores:** Last Thursday (4<sup>th</sup> April) the cows were assessed for locomotion (scale of 1 to 5 with 1= normal, 2= mildly lame, 3= moderately lame, 4= lame, and 5= severely lame). Of the 58 cows scored, 48 cows scored 1 (83%), 9 cows scored 2 (16%), and 1 cow scored 3. Cows scoring 2 or 3 will be examined by the end of this week.