



## 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 27-08-2018

#### Farm Details:

Area available: 17.65 ha  
Current Stocking Rate (MP): 3.4 cows/ha  
Farm Cover: 654 kg DM  
Growth Rate: 90 (83) kg DM/ha/day  
Demand: 48 kg DM/ha/day  
Average Concentrate Supplement: 4 kg/head/day  
Average DIM: 192.5  
Cows Milking: 60



**Daily Feed Budget:** Cows are being allocated 14 kg DM of grass and 4 kg of concentrate of an 18% in-parlour concentrate. Concentrate supplementation has reduced from 5 to 4 kg this week in line with the feed budget for the cows at this stage of lactation (180-240 DIM).

**Grazing Plan:** AFC on the 27<sup>th</sup> of August was 654 kg DM/ha (range 150 to 1738 kg DM/ha) with a cover/LU of 192 kg DM. Average grass growth was 90 kg DM/ha/day since last Thursday. Grass quality has improved with all of the stemmy paddocks grazed/ cut for baled silage last week with topping where necessary.

**Milk Production:** Average production is 22.9 kg/cow/day, as of the week ending the 26<sup>th</sup> of August, at 4.15% fat and 3.69% protein (1.79 kg MS). Average production this time last year was 21.7 kg/cow/day, at 4.44% fat and 3.72% protein (1.77 kg MS). SCC is currently 85,000. Fat, protein and SCC figures are based on milk recording results from the 15<sup>th</sup> of August.

**Breeding Season 2018:** The breeding season started on Monday 30<sup>th</sup> of April and ended on the 22<sup>nd</sup> of July. Pregnancy scans are being done weekly at approximately 30 and 60 days post A.I. Pre-breeding, the decision was made not to breed 5/60 for various reasons including lameness, temperament and high SCC, therefore, only 55/60 cows were submitted for breeding. Submission rate in the first 3 weeks was 96% (53/55 cows) with all cows being submitted by week 5. Current scanning data indicates that conception rate to first service is 69% (38/55). Based on a 60-day scan, the 6 week in calf rate is 84% (46/55 cows). To date, 52/55 cows have been confirmed in calf from the first 9 weeks of breeding. Further scans will be completed over the coming weeks.



#### Lyons Systems Research Herd Notes

**Sacrifice paddocks:** During the drought, one paddock (1.07 ha) was used as a sacrifice paddock where the cows were fed a TMR for 38 days. The paddock has started to recover since the cows resumed grazing (growing on average 30 kg/ha/day), but it was decided to rejuvenate the paddock. Last week, the feeding area of the paddock and areas worst affected with dung pats were firstly blade rotavated and the whole paddock was then chain harrowed. Following this, 8 kg/acre of tetraploid perennial ryegrass (Abergain) was sown and the paddock was then flat rolled. It will be sprayed post emergence.

**Fertiliser:** Last Friday, 33.4 kg N/ha (1 bag/acre of CAN) was spread on the MP. In total, 237 kg N/ha has been spread to date.