



## 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 16-07-2018

#### Farm Details:

Area available: 16.09 ha (1.56 removed for reseeded)

Current Stocking Rate (MP): 3.73 cows/ha

Farm Cover/LU: 109 kg DM/LU

Growth Rate: 9 kg DM/ha/day

Demand: 0 kg DM/ha/day

Average Concentrate Supplement: 5 kg/head/day in parlour and 4 kg/head/day in the partial TMR

Average DIM: 150.5

Cows Milking: 60



**Daily Feed Budget:** Due to the severe drought cows are being allocated 0 kg DM of grass, 9.3 kg fresh weight of silage (2.5 kg DM), 30.6 kg fresh weight of maize silage (10.1 kg DM), 2 kg of beet pulp (1.8 kg DM), 2 kg of soya bean meal (1.8 kg DM), 0.5 kg of alfalfa and 5 kg of in-parlour concentrate.

**Grazing Plan:** AFC on the 16<sup>th</sup> of July was 406 kg DM/ha (range 100 to 801 kg DM/ha) with a cover/LU of 109 kg DM. Average grass growth was 9 kg DM/ha/day last week due to extreme drought conditions. There is a soil moisture deficit of approximately 94 mm in the region, with only 0.8 mm of rain in the last week. Last week, it was decided to put the cows on a sacrifice paddock and feed a maize silage-based partial TMR with no grass in the diet. This diet is fed along the fence in the sacrifice paddock and started on Friday 6<sup>th</sup> of July. This diet will be fed until grass growth improves.

**Milk Production:** Average production this week is 24.0 kg/cow/day as of the week ending the 15<sup>th</sup> of July, at 4.17% fat and 3.55% protein (1.85 kg MS). Average production this time last year was 27.4 kg/cow/day, at 4.48% fat and 3.50% protein (2.2 kg MS). SCC is currently 129,000. Fat, protein and SCC figures are based on milk recording results from the 3<sup>rd</sup> of July.

**Breeding Season 2018:** The breeding season started on Monday 30<sup>th</sup> of April and it is now the final week (12 of 12 weeks). It was decided not to breed four (of the sixty) cows due to age, poor fertility history or low production before breeding started. One other cow was not bred after the first 3 weeks, due to temperament issues at milking. Breeding is all by A.I. Pregnancy scans are done weekly at approximately 30 and 60 days post A.I. Submission rate



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in the first 3 weeks was 96% (54/56 cows) with all cows being submitted by week 5. Current scanning data indicates that conception rate to first service is 68% (38/56). Based on a 60-day scan, 37 cows have been confirmed in calf from the first 20 days of breeding. Further scans will be completed over the coming weeks.