



**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) 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 and sustainable when built on a foundation of good grassland management and meeting both milk and fertility targets and has a place in the 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 04-10-2021

#### Farm Details:

Area available: 17.43ha  
Current Stocking Rate (MP): 3.27 LU/ha  
Cover/LU: 229kg DM/LU  
Farm Cover: 750kg DM/ha  
Growth Rate: 32kg DM/ha/day  
Demand: 29kg DM/ha/day  
Average Concentrate Supplement: 3kg/head/day  
Average DIM: 223 days



**Current Daily Feed Budget:** Cows are being offered 3kg/head/day of one of four experimental concentrates; a 14% protein concentrate with non-native ingredients, a 12% protein concentrate with non-native ingredients, a 12% protein concentrate with native ingredients, or a 12% protein concentrate with native ingredients supplemented with methionine. These diets are being offered as part of our 2021 nutrition trial until the start of the final grazing rotation in October. Cows are also allocated 5kg DM of silage, 9kg DM of grass and grass DM is currently 17.8%.

**Grazing Plan:** The current AFC is 750kg DM/ha (range 100 – 1540kg DM/ha), cover/LU is 229kg DM and growth is 32kg DM/ha/day. Growth levels are declining mainly due to the deteriorating weather. Average soil temperature at 100mm has declined to 12°C and rainfall has risen to 23.8mm between 27th September-3<sup>rd</sup> October (rain data from the nearby Casement Aerodrome). As a result, the target AFC of 1150-1175kg DM/ha on 1<sup>st</sup> October was not achieved. Silage is being fed to increase covers. The autumn grazing planner is set to start on 11th of October the first paddock being closed from this date. Cows will be housed full time from around 21<sup>st</sup> November (weather depending) with a target AFC of 650kg DM/ha. Rotation length is set at 38 days in line with Teagasc autumn grazing targets.

**Milk Production:** Average production from 27th September-3<sup>rd</sup> October was 20.4kg/cow at 4.79% milk fat, 3.80% protein, 1.75kg MS and SCC was 73,000 based on milk recording on 30<sup>th</sup> September. Milk production from this time last year was 20.7kg/cow at 4.48% milk fat, 3.87% protein, 1.73kg MS and SCC was 76,000.

**BCS:** The BCS of the herd was recorded on 30<sup>th</sup> September. One cow was  $\leq 2.5$  (1.8% of herd) and two cows were  $\geq 3.5$  (3.5% of herd). With dry off approximately 80 days away, cows



#### Lyons Systems Research Herd Notes

will be closely monitored to ensure they have a BCS of 2.75 at dry off. This time frame allows any excessively thin or fat cows time to reach this ideal BCS at dry-off. In turn, it is hoped that the majority of cows will meet the calving BCS target of 3.0 to 3.25